

# Particle Accelerator Conference

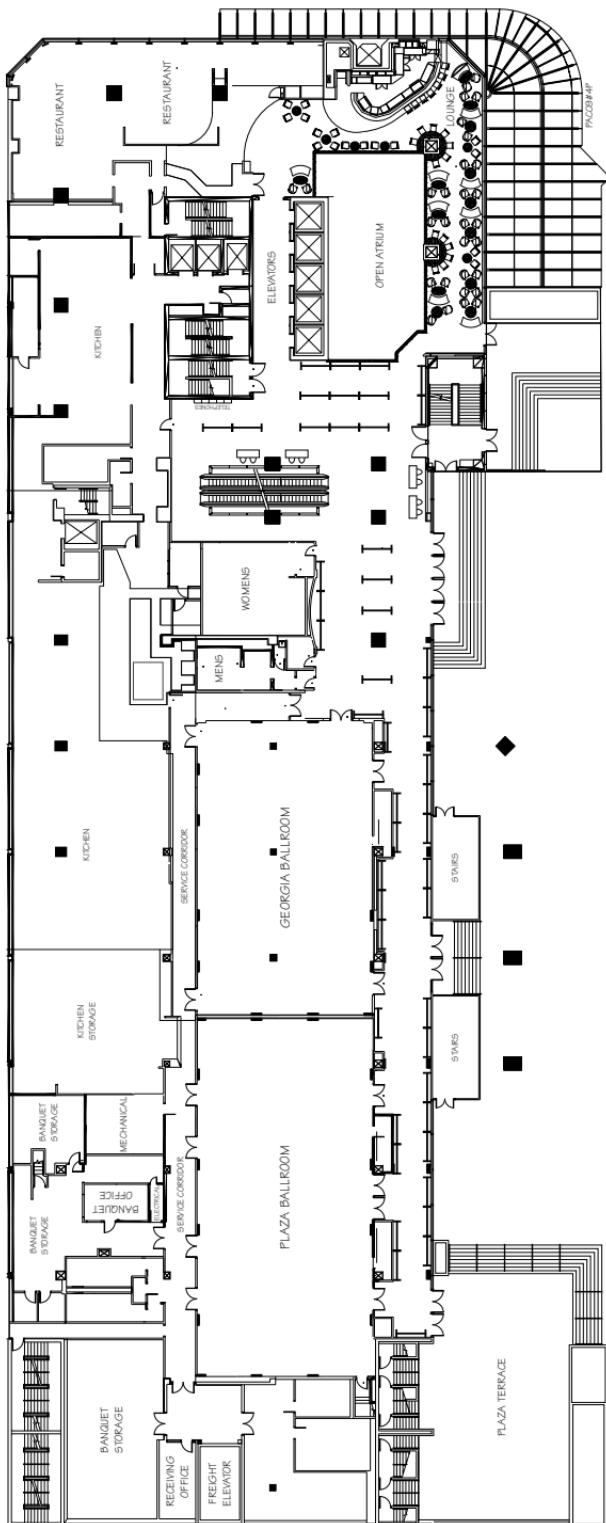
May 4-8, 2009  
Vancouver, British Columbia  
Canada



## Conference Guide



[www.triumf.ca/pac09](http://www.triumf.ca/pac09)



Hyatt – Plaza Level (2nd floor)  
Hyatt Regency Level Shown on page 16

# 2009 Particle Accelerator Conference

May 4-8, 2009

Vancouver, British Columbia, Canada

[www.triumf.ca/pac09](http://www.triumf.ca/pac09)

The PAC09 conference is held  
jointly at the:

Hyatt Regency Vancouver  
and  
Fairmont Hotel Vancouver

Organized by  
TRIUMF



## Sponsorship

The conference is held under the joint auspices of the Institute of Electrical and Electronics Engineers through its Nuclear and Plasma Sciences Society, and of the American Physical Society through its Division of Physics of Beams.



# Contents

## Contents Section I

Welcome .....	2
Program Overview .....	3
Conference Organization.....	6
Conference Hotels.....	10
Emergency/medical Information .....	11
Registration.....	12
Security and Insurance.....	12
Social Program and TRIUMF Tour .....	13
Companion Programs.....	13
Tourism, Services and Banking .....	15
Industrial Exhibitors Registration Information.....	17
Industrial Exhibitors .....	17
Sponsors .....	19
Awards.....	20
Student Program & Travel Awards .....	29
Satellite Meetings .....	31
Internet .....	33
Proceedings Office .....	33
Scientific Program .....	34
Identification of Contributions .....	36
Scientific Program Summary.....	37

## Contents Section II

Scientific Program Contributions .....	57
--	----

# Welcome



## Welcome!

The 2009 Particle Accelerator Conference (PAC09) is taking place in Canada's West Coast City of Vancouver, British Columbia from May 4th to 8th, 2009. This well-established conference series is of particular significance to Accelerator Scientists, Engineers, Students and Industrial Vendors interested in all aspects of particle accelerator technology. The Scientific Program comprises invited speakers, contributed orals, poster sessions, an Industrial Forum and an exciting Student Program. PAC09 is committed to reaching out to young researchers in the field, and has set a budget to partially support a limited number of qualifying accelerator students.

The 2009 Particle Accelerator Conference (PAC09) is hosted by TRI-UMF, Canada's National Laboratory for Particle and Nuclear Physics, and is jointly sponsored by the NPSS (IEEE) and the DPB (APS). Key PAC09 organizers include: Paul Schmor (Conference Chair), Shane Koscielniak (Scientific Program Chair), Shirley Reeve (Conference Treasurer) and Yuri Bylinski (Local Organizing Committee Chair).

On behalf of the Local Organizing Committee, it gives us great pleasure to welcome you to PAC09, to Vancouver, to British Columbia and to Canada. The committee has worked diligently on assembling an exciting and stimulating scientific programme. Your response to the call for abstracts and your attendance here, during a difficult era in the global economy, affirms our goal to be relevant to the community.

Following PAC09, the PAC conferences will change their format. PAC has joined with APAC and EPAC in establishing an International Particle Accelerator Conference (IPAC) that will rotate annually from venues in Asia, Europe and America. In doing so, the PAC Organizing Committee (OC) recognized that foreign travel costs might impede the expeditious dissemination of new results for some North American accelerator scientists. Consequently, the PAC OC has decided to convene a fall PAC meeting in North America between the spring North American IPAC meetings. The first fall meeting of PAC will be in 2013. The North American PAC will next meet in New York in the spring of 2011 and then, next, one year later as IPAC'12 in New Orleans. Following IPAC'12, the PAC series will meet every 18 months, with every other PAC meeting being an IPAC. The first IPAC (IPAC'10) will take place in Kyoto, Japan. IPAC'11 will be held in Spain in the fall of 2011.

Vancouver is a beautiful, dynamic city set in a spectacular natural environment. It is one of the few places in the world where you can ski in the morning and golf in the afternoon. Springtime in Vancouver is particularly beautiful, as the sun reflects off the last remnants of snow on the mountains and sparkles across the ocean below. There are indoor

and outdoor activities to please adults, families, couples and friends to no end in this multicultural city. The 2010 Winter Olympics will be less than one year away. Vancouver and Whistler are prepared and excited to host this large international event.



Paul W. Schmor  
Chairman, PAC09

## Program Overview

First, I add my voice to the welcome extended by Paul Schmor. Whatever is your field of expertise within particle-accelerator science and engineering, I know that PAC09 will offer you a first rate scientific program. The US PAC provides exhaustive coverage of accelerator topics from ion sources to target stations (and all points between) and from completed facilities to futuristic concepts. With 117 invited orals, 84 contributed orals, and 1710 posters in the span of 5 days, there is a surfeit of riches from which to choose. The flipside is that the PAC can be overwhelming. To increase your satisfaction, the program has been adjusted e.g. there are fewer orals than at PAC07. Every day, a.m. and p.m., there is a half hour free of conflict between orals and posters. Within the main classifications, orals and posters are scheduled on different days; and heavily subscribed classifications have their posters spread over two days so that you have a better chance of getting to posters within your own field. Another adjustment is a scaling of total hours given to a classification according to the contributions at the previous conference, PAC07, while keeping the conference "forward looking". For example, the increase given to ACCTECH shows the value attached to accelerator engineering.

We continue the tradition begun at EPAC06 and fostered at PAC07 of a student poster session (Sunday 3rd May, starting at 4:00 pm) that provides an opportunity for students to share their work with active professionals in the field. The quality of student work is high, and I trust you will make time to stop by. Despite recent economic woes, we have a strong showing from the industrial exhibitors who are ceaselessly innovative and continue to support the PAC through sponsorships. The oral program has a counterpart to the exhibits: Thursday a.m. features agency perspectives on environmental and security applications of accelerators. With many projects anticipated or under construction, scientists are often entrusted with project management without formal training; so I hope you will take the opportunity, Thur. am, to hear from true practitioners of this art. In addition to focused satellite meetings (see page 29) there is a special session on accelerators in Asia, also Thursday a.m. And on Saturday, during the TRIUMF tour, you will see what TRIUMF does when not hosting an international conference. Since PAC97, also in Vancouver, we have become much more than a cyclotron laboratory.

Finally, I wish to mention process, and thank my scientific program committee (SPC). How talks are selected can be mysterious, so let me explain. The  $\approx$  70 member SPC meets twice, face to face. At the first meeting, >1 year in advance of PAC, the SPC chooses invited orals from hundreds proposed by SPC members on behalf of their labs and regions. Foremost in the selection criteria is scientific merit and interest to the meeting; followed by "regional balance". At the second meeting, 3 months before PAC, the SPC selects contributed orals. Every submitted abstract is considered! PAC09 received 2043 abstracts; and the SPC must be thanked for the time spent evaluating them, and congratulated for the quality of the program delivered to you. I add my personal thanks: the enthusiasm and spirit of cooperation shown by the SPC members made my task as chairman easy and enjoyable.



Shane Koscielniak  
Scientific Program,  
Committee Chair

### Conference Coordinator

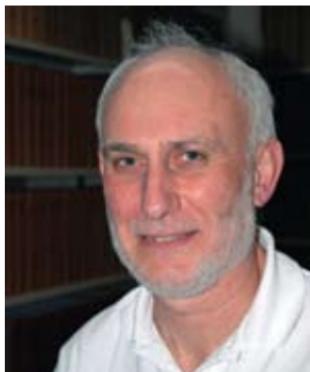
General enquiries should be directed to the Conference Coordinator:

Sandi Miller  
TRIUMF  
4004 Wesbrook Mall  
Vancouver, B.C. V6T 2A3  
Canada  
Phone: 1-604-222-7352  
Fax: 1-604-222-1074  
Email: pac09@triumf.ca



### Proceedings Editor

Martin Comyn  
TRIUMF



### Conference Treasurer

Shirley Reeve  
TRIUMF



## TRIUMF - Who We Are

TRIUMF was founded in 1968 by Simon Fraser University, the University of British Columbia (UBC), and the University of Victoria to meet research needs that no single university could provide. The University of Alberta joined the TRIUMF consortium almost immediately. There are currently seven full members and seven associate members from across Canada in the consortium that governs TRIUMF.

Since its inception as a local university facility, TRIUMF has evolved into a national laboratory while still maintaining strong ties to the research programs of the Canadian universities. The science program has expanded from nuclear physics to include particle physics, molecular and materials science, and nuclear medicine. TRIUMF provides research infrastructure and tools that are too large and complex for a single university to build, operate, or maintain. Since its opening in 1969, the laboratory has received more than \$1 billion of federal investment and \$40 million from the Province of British Columbia. The provincial contributions fund the buildings, which are owned by UBC and located on an 11-acre site in the south campus of UBC. There are over 350 scientists, engineers, and staff performing research on the TRIUMF site. It attracts over 500 national and international researchers every year and provides advanced research facilities and opportunities to 150 students and post-doctoral fellows each year.

TRIUMF's mission is:

- *To make discoveries that address the most compelling questions in particle physics, nuclear physics, nuclear medicine, and materials science;*
- *To act as Canada's steward for the advancement of particle accelerators and detection technologies; and*
- *To transfer knowledge, train highly skilled personnel, and commercialize research for the economic, social, environmental, and health benefit of all Canadians.*

TRIUMF

Strategic Planning and Communications

Tim Meyer

# Conference Organization

## Local Organizing Committee

Iouri Bylinskii  
Local Organizing Committee Chair



Silke Bergelt-Bruckner  
*Registration Coordinator*

Martin Comyn  
*Conference Editor*

Remy Dawson  
*Poster Police Coordinator*

Lynn DeCaire  
*Conference Administrator*

Dana Giasson  
*Web Master*

Mindy Hapke  
*Graphical Services*

Shane Koscielniak  
*Scientific Program Committee Chair*

Corrie Kost  
*Speaker Interface*

Steve McDonald  
*IT Coordinator*

Marco Marchetto  
*TRIUMF Tour Coordinator*

Sandi Miller  
*Conference Coordinator*  
*Industrial Exhibit Coordinator*

Shirley Reeve  
*Treasurer*

Gord Roy  
*AV Coordinator*

Paul Schmor  
*PAC09 Conference Chair*

Jana Thomson  
*Co-Editor and Conference Guide*

Stanley Yen  
*Student Program Coordinator*

## International Organizing Committee

Ilan Ben-Zvi (IEEE/NPSS-PAST technical Chair & BNL)  
Sandra Biedron (IEEE/NPSS elected member, & ANL)  
Caterina Biscari (INFN, Italy, EPAC08 chair, present)  
Joseph Bisognano (University of Wisconsin)  
Oliver Brüning (EPAC11 Chair, future & CERN)  
John Cary (University of Colorado)  
Yu-Jiuan Chen (LLNL)  
Steve Gourlay (LBL)  
Chan Joshi (UCLA)  
Robert O. Hettel (SLAC)  
Stuart Henderson (Replaces Norbert Holtkamp as PAC05 chair & ORNL)  
Georg Hoffstaetter (Cornell)  
Steve Holmes (APS/DPB Chair & FNAL)  
Andrew Hutton (TJNAF)  
Shane Koscielniak (PAC09 SPC Chair & TRIUMF)  
Shin-ichi Kurokawa (KEK, IPAC10 Chair, present)  
Chris Prior (EPAC06 Chair, past & RAL)  
Vladimir Shiltsev (FNAL)  
Vinod Sahni (APAC 07 Chair, Asian past chair RRCAT)  
Paul Schmor (PAC09 Chair & TRIUMF)  
Stan Schriber (PAC07 Chair & NSCL)  
Dave Sutter (University of Maryland)  
Alan Todd (AES)  
Thomas Wangler (LANL)  
Thomas Roser (PAC11 Chair & BNL)  
Marion White (ANL)

# Program Committee

## Program Committee

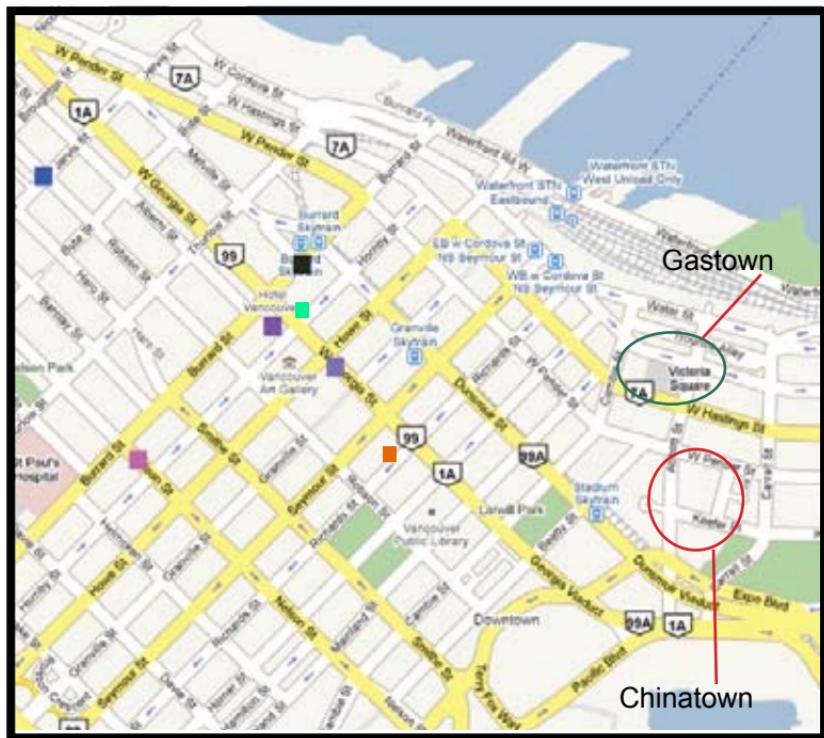
Koscielniak, Shane – TRIUMF  
Scientific Program Committee  
Chair

Adolphsen, Christopher – SLAC  
Alessi, James – BNL  
Alexahin, Yuri – FNAL  
Anderson, David E. – ORNL  
Apollinari, Giorgio – FNAL  
Baartman, Richard – TRIUMF  
Barletta, William – MIT  
Biedron, Sandra (Gail) – ANL/Sincrotrone Trieste  
Bisoffi, Giovanni – INFN/Legnaro  
Bluem, Hans – AES  
Brüning, Oliver – CERN  
Bulfone, Daniele – Ikon  
Casagrande, Fabio – ORNL  
Chaize, Jean-Michel – ESRF  
Champion, Mark – FNAL  
Chattopadhyay, Swapan – STFC (DL)  
Chen, Yu-Jiuan – LLNL  
Clarke, James (Jim) – STFC (DL)  
Colby, Eric – SLAC  
Delayen, Jean – TJNAF  
Dragt, Alex – Maryland  
Dunham, Bruce M. – Cornell University  
Fischer, Wolfram – BNL  
Fox, John – SLAC  
Gao, Jie – IHEP-Beijing  
Geschenke, Gunther – CERN/CLIC  
Gilpatrick, Douglas – LANL  
Goto, Akira – RIKEN  
Grimm, Terrance – Niowave  
Grote, David P. – LLNL  
Harkay, Katherine – ANL  
Hartouni, Edward P. – LLNL  
Henderson, Stuart – ORNL  
Herbert, Joe – STFC (DL)  
Hofmann, Ingo – GSI  
Hutton, Andrew – TJNAF  
Joshi, Chan – UCLA  
Keller, Roderich – LANL  
Ko, Kwok – SLAC  
Krafft, Geoffrey – TJNAF  
Kurokawa, Shin-ichi – KEK/Tsukuba  
Lebedev, Valeri A. – FNAL  
Leemans, Wim – LBNL

## Program Committee

Letchford, Alan – STFC (RAL)  
Liepe, Matthias – Cornell University  
Litvinenko, Vladimir – BNL/NSLS2  
Lund, Steven M. – LLNL  
Marti, Felix – MSU/NSCL  
McManamy, Thomas J. – ORNL  
McMichael, Gerald – ANL  
Meot, Francois – CEA/IN2P  
Merminga, Lia – TRIUMF  
Mori, Yoshiharu – Kyoto University  
Muggli, Patric – USC  
Noda, Akira – Kyoto University  
Ostroumov, Petr – ANL  
Pasquinelli, Ralph J. – FNAL  
Pilat, Fulvia – BNL  
Prebys, Eric – FNAL  
Prestemon, Soren – LBNL  
Qin, Hong – Princeton University  
Raparia, Deepak – BNL  
Rivkin, Leonid – PSI  
Robin, David S. – LBNL  
Rosenzweig, James – UCLA  
Rossbach, Joerg – DESY  
Russell, Steven J. – LANL  
Rybarcyk, Lawrence – LANL  
Sannibale, Fernando – LBNL  
Schmickler, Hermann – CERN  
Schmor, Paul – TRIUMF  
Shea, Thomas – ORNL  
Spentzouris, Panagiotis – FNAL  
Stockli, Martin – ORNL  
Strauss, Bruce – DOE  
Stutzman, Marcy – TJNAF  
Syphers, Michael – FNAL  
Todd, Alan – AES  
Urukawa, Junji – KEK  
Waldron, William – LBNL  
Wanderer, Peter – BNL  
White, Karen – ORNL  
Wienands, Ulrich – SLAC  
Yokoya, Kaoru – KEK  
Zhang, Arlene – BNL (AD)  
Zimmerman, Frank – CERN

# Conference Hotels



- Fairmont Hotel Vancouver
- Hyatt Regency Vancouver
- Listel
- Sheraton Wall Centre
- Four Seasons
- London Drugs
- Medical clinic

## Conference Hotels

Fairmont Hotel Vancouver  
900 West Georgia Street  
Vancouver, BC V6C 2W6  
[hvc.concierge@fairmont.com](mailto:hvc.concierge@fairmont.com)  
1-604-684-3131

Hyatt Regency Vancouver  
655 Burrard Street  
Vancouver BC V6C 2R7  
1-604-683-1234

# **Emergency and Medical Information**

## **EMERGENCY PHONE NUMBERS AT VENUES:**

---

Hyatt Regency Vancouver	604-683-1234
Fairmont Hotel Vancouver	604-684-3131

## **HOSPITAL:**

---

St. Paul's Hospital 1081 Burrard Street <a href="http://www.providencehealthcare.org">www.providencehealthcare.org</a>	604-682-2344
--	--------------

## **WALK-IN CLINICS:**

---

Ultima Medicentre 1055 – Plaza Level Bentall 4 Dunsmuir Street <a href="http://www.ultimamedicentre.ca">www.ultimamedicentre.ca</a>	604-683-8138
Stein Medical Clinic Bentall 5 lobby 188 – 550 Burrard Street <a href="http://www.steinmedical.com">www.steinmedical.com</a>	604-688-5924

## **PHARMACIES:**

---

Rexall 1055 West Georgia St. <a href="http://www.rexall.ca">www.rexall.ca</a> (located in the mall attached to the Hyatt)	604-684-8204
Shoppers Drug Mart 700 W. Georgia Street <a href="http://www.shoppersdrugmart.com">www.shoppersdrugmart.com</a>	604-683-0358
London Drugs 710 Granville Street <a href="http://www.londondrugs.com">www.londondrugs.com</a>	604-448-4802
Burrard Pharmasave 101 – 1160 Burrard Street <a href="http://www.burrardpharmacy.com">www.burrardpharmacy.com</a> (across from St. Pauls Hospital)	604-669-7700

# Registration

## ***REGISTRATION***

---

### Hours and Location

Registration will commence at the Fairmont Hotel Vancouver. The registration desk will be on the Conference Floor in the British Columbia Foyer.

Sunday, May 3	15:00 to 19:00
Monday, May 4	08:00 to 12:30

Registration will move to the Hyatt Regency mid-day Monday, where it will be located on the 3rd floor in the Regency Foyer.

Monday, May 4	13:00 to 18:00
Tuesday, May 5	08:00 to 18:00
Wednesday, May 6	08:00 to 18:00
Thursday, May 7	08:00 to 18:00
Friday, May 8	08:00 to 17:00

Your registration fee includes attendance at all technical sessions of the conference, the conference guidebook, and one copy of the proceedings on DVD.

Participants are asked to wear their conference badges at all PAC09-sponsored events.

### Extra Tickets

Individual tickets for the Welcome Reception, Banquet, and TRI-UMF Tour are limited. If there are any tickets left, they will be available at Registration.

### Cancellation of Registration

All cancellations must be made in writing to pac09@triumf.ca. No refunds will be provided for cancellations after March 31, 2009. This policy also applies to extra tickets for social functions. Refunds may be granted for no-shows under extenuating circumstances.

### Message Board

A message board is located beside the registration desk.

### Security and Insurance

PAC09, the Hyatt Regency Vancouver, and the Fairmont Hotel Vancouver are not responsible for any materials left unattended. The conference organizers cannot accept liability for personal injuries sustained or for loss or damage to participants' (or companions') personal property during the conference.

### Luggage Storage:

The hotels will provide luggage storage for their guests.

# Social Program and TRIUMF Tour

## **SOCIAL PROGRAM AND TRIUMF TOUR**

### **Social Events**

*Sunday, May 3*

*Fairmont Hotel Vancouver, Pacific Ballroom*

Student Poster Session 16:00

Students will display their posters from 14:00 for appraisal by the judges.

Welcome Reception 17:00

*Thursday, May 7*

Banquet

*Hyatt Regency Ballroom 18:30*

*Fairmont Hotel Vancouver BC Ballroom 18:30*

Due to overwhelming conference attendance, there will be two locations for the PAC09 Banquet. You will receive a banquet ticket with your registration package indicating which hotel banquet you will be attending. The times are the same for both hotels.

### **TRIUMF Tour**

*Saturday, May 9*

\$50.00CAD

A tour of TRIUMF will be available on Saturday, May 9 [included with tour fee: lunch at TRIUMF, and transportation to and from TRIUMF]. The cost for this tour is not included with your registration fee.

Sat. May 9	08:45	Bus departs Hyatt Regency for TRIUMF
	14:00	Bus departs TRIUMF for Hyatt Regency
	15:00	Arrival at Hyatt Regency From TRIUMF

### **PAC09 COMPANION TOURS**

Vancouver is a beautiful city with much to see and do. We are pleased to offer three different tours to companions attending the PAC09 conference. All arrangements and payments are being co-ordinated by Venue West Conference Services.

#### **Companion Coffee**

May 4th, 09:30 - 10:00 Hyatt Regency Plaza Foyer  
(No registration is required)

This is an opportunity to get to know the other companions at

## Companion Tours

PAC09. Start with coffee and pastries at 09:30 at the Hyatt Regency, and then join the city tour to get to know Vancouver.

### Vancouver City Tour

May 4th, 10:00-13:30 (3.5 hrs)

\$52.00 CAD (including taxes)

A deluxe motorcoach with full tour commentary will show delegates the beauty and artistic diversity of the city. The adventure begins with a drive through world famous Stanley Park, a 1,000 acre forest set in the heart of downtown. Other tour highlights include exotic Chinatown and nearby Gastown with its quaint cobblestone streets, steam clock and unique shops.

### Museum of Anthropology/Granville Island Excursion

May 5th, 10:00-14:30 (4.5 hrs)

\$60.00 CAD (including taxes)

This excursion is designed to acquaint delegates with local culture and artistry with a visit to the Museum of Anthropology. The commented tour begins with a drive along the beautiful coastline & beaches of Vancouver en route to the University of British Columbia. Professional guides will be on hand to take guests on an informative and fascinating walk through the Museum and near-by grounds. The tour continues on to trendy Granville Island. Ample time is provided for eating, strolling and shopping before the return trip back to the hotel.

### North Shore Tour

May 7th, 10:00-14:00 (4 hrs)

\$75.00 CAD (including taxes)

This picturesque excursion includes a tour to Capilano Suspension Bridge and Nature Park as well as to Cypress Mountain Park. The Capilano Suspension Bridge was built back in 1888 and was the first of its kind spanning 450 feet (137 m) across and 230 feet (70 m) above the Capilano River. Guests are invited to explore and learn about British Columbia's rainforest ecosystem or enjoy leisurely shopping at the Trading Post. Next the tour continues on to Cypress Mountain Park and Lookout. Majestic Cypress Park sits on high ground, overlooking the bustling metropolitan City of Vancouver.

## **TOURISM**

---

### Weather

Vancouver enjoys a temperate climate. During May the mean daily maximum temperature is 17 C (62 F) and mean daily minimum 8 C (46 F). On average, 8 days in May are clear and sunny and 10 are rainy – so you will probably need rainwear at some time.

### Travel Information:

Bus and skytrain information:	<a href="http://www.translink.bc.ca">www.translink.bc.ca</a>
Via Rail:	<a href="http://www.viarail.ca">www.viarail.ca</a>
BC Ferries:	<a href="http://www.bcferries.com">www.bcferries.com</a>
Vancouver International Airport:	<a href="http://www.yvr.ca">www.yvr.ca</a>

## **COPYING & BANKING**

---

### Copying

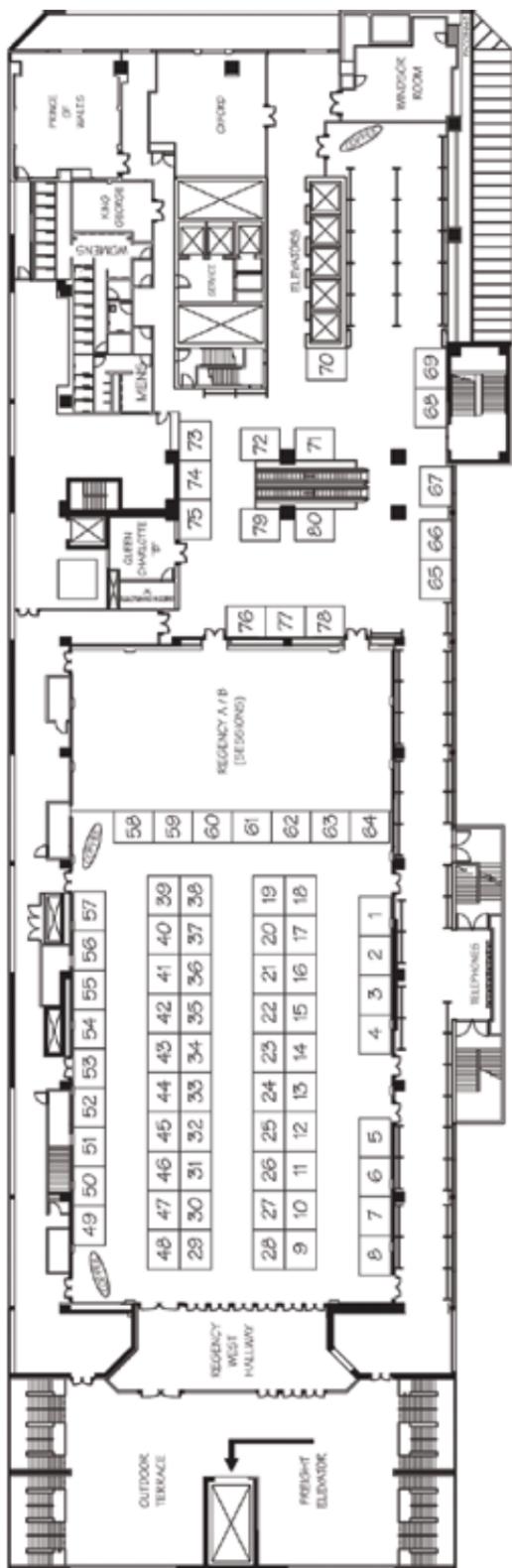
Staples Business Depot Ltd. 200-1055 Georgia St. (same building as the Hyatt)	604-678-4873
Harbour Centre Printing & Copying 18C - 555 West Hastings Street	604-669-2336
Kinko's Copies 789 West Pender Street	604-685-3338

### Banking and Currency Exchange:

RBC Royal Bank 1025 West Georgia Street Vancouver, BC	Tel: 1-800-769-2520
---	---------------------

VBCE (Vancouver Bullion & Currency Exchange) 800 West Pender Street, Suite 120 Vancouver, BC V6C 2V6 Hours of Operation: Monday - Friday 9:00am - 5:00pm	Tel: 604-685-1008
---	-------------------

## Industrial Exhibitors and Sponsors



**Hyatt Regency Level (3rd floor)  
Industrial Exhibitors**

# Industrial Exhibitors and Sponsors

## ***Exhibitor Registration***

---

Exhibitor registration is at the Hyatt only, on the 3<sup>rd</sup> floor.

Sunday, May 3	15:00 to 19:00
Monday, May 4	08:00 to 12:30

Exhibitors registered at press time.

1. PAVAC
2. Diversified Technologies
3. Microwave Amplifiers Ltd. & InterTronic Solutions
4. RI Research Instruments GmbH
5. Transtechnik GmbH
6. Incodema
7. Stangenes Industries, Inc.
8. Micro Communications Inc.
9. Thales
10. Thales
11. Tech-X Corporation
12. Pearson Electronics
13. Continental Electronics
14. CPI
15. Bruker Biospin
16. Meyer Tool & Manufacturing Inc.
17. Plansee Metall GmbH & WC Heraeus
18. Amuneal Manufacturing Corp.
19. Euclid Tech Lab
20. SAES Getters
21. Atlas Technologies
22. IE Power Inc.
- 23.
- 24.
- 25.
26. Scanditronix Magnet AB
27. National Instruments
28. Kepco Inc.
29. Thomson Broadcast & Multimedia AG
30. Pfeiffer Vacuum
31. Diamond Detectors
32. Attocube Systems AG
33. Magnetic Metals
34. Karlsruhe Institute for Technology
35. Everson Tesla
36. Universal Voltronics
37. L-3 Electron Devices
38. Gamma Vacuum
39. AAPS
40. Vector Fields Inc.

## Industrial Exhibitors and Sponsors

41. Dimtel Inc.
42. Pantechnik
- 43.
- 44.
- 45.
46. PMB
47. D-TACQ Solutions Ltd.
48. Ceramic Magnetics
49. TDK-Lambda
50. AFT
51. Burle Industries
52. ESS-S
53. ScandiNova Systems
54. e2v
55. CAEN
56. KYMA
57. Cosylab
58. Mega Industries
59. AccelSoft
60. Muons Inc.
61. FRIATEC NA LLC
62. AWR Corporation
63. Solid Sealing Technology
64. Hi-Tech Manufacturing
65. Instrumentation Technologies
66. Apple Canada
67. RadiaBeam
68. Toshiba Electron Tubes & Devices
69. Toshiba Electron Tubes & Devices
70. Kurt J. Lesker Company
71. FMB
72. Struck Innovative Systeme GmbH
73. Danfysik
74. GMW Associates
75. Far-Tech, Inc.
76. Sigmaphi
77. CST of America
78. Advanced Energy Systems
79. Babcock Noell GmbH
80. ZTEC Instruments

## **Sponsors**

---

The PAC09 Organizing Committee, Scientific Program Committee and Local Organizing Committee would like to acknowledge and thank the following for their sponsorship and support:



CERN Courier  
Apple Canada  
Thomson Broadcast & Multimedia  
Transtechnik  
D-Pace  
Advanced Energy Systems  
Sigmaphi  
Pantechnik

## ***Student Grants***

The student travel program is made possible by funding support from the PAC and generous contributions from the following institutions:

AAPS  
Argonne National Laboratory  
Brookhaven National Laboratory  
Diversified Technologies  
Thomas Jefferson National Laboratory  
Lawrence Livermore National Laboratory  
MDS Nordion

# Awards

## Accelerator Awards

### **2009 APS Robert R. Wilson Prize**

***Awarded to Satoshi Ozaki, physicist at Brookhaven National Laboratory***

To recognize and encourage outstanding achievement in the physics of particle accelerators - a prize of the American Physical Society sponsored by the APS Divisions of Physics of Beams and Particles and fields, and the friends of R.R. Wilson. The prize includes a \$5000 award and is named for the late Robert Rathbun Wilson, founding director of the Department of Energy's Fermilab in Illinois.



Ozaki directed the construction of TRISTAN, a 60 GeV e+e- collider, the first major high energy physics facility in Japan. After completing TRISTAN on schedule and on budget in 1987, he returned to Brookhaven as Head of the RHIC Project which was completed in 1999, leading to an outstanding physics program. Currently, Ozaki is the Senior Project Advisor to the NSLS-II Project at BNL, the role he assumed in August 2007 after serving as the Director for the Accelerator Systems Division since its inception in 2005.

Ozaki is honoured by the society "For his outstanding contribution to the design and construction of accelerators that has led to the realization of major machines for fundamental science on two continents, and his promotion of international collaboration."

## 2009 APS Award for Outstanding Doctoral Thesis Research in Beam Physics

**Awarded to Ryoichi Miyamoto**

To recognize doctoral thesis research of outstanding quality and achievement in beam physics and engineering. The award was established in 1990 by the Division of Physics of Beams and is supported by Brookhaven Science Associates and Universities Research Association.



**Thesis Title:** Diagnostics of the Fermilab Tevatron Using an AC Dipole

An extract from Miyamoto's Thesis Abstract:

The Fermilab Tevatron is currently the world's highest energy colliding beam facility. Its counter-rotating proton and antiproton beams collide at 2 TeV center-of-mass. Delivery of such intense beam fluxes... has required improved knowledge of the Tevatron's optical lattice. An oscillating dipole magnet, i.e. an AC dipole, is one such tool to non-destructively assess the optical properties of the synchrotron.

We discuss development of a 20 kHz AC dipole system... which can be adiabatically turned on and off to establish sustained coherent oscillations of the beam... without affecting the transverse emittance... We discuss corrections which must be applied to the driven oscillation measurements to obtain the proper interpretation of beam optical parameters from AC dipole studies. We present several measurements of linear optical parameters (beta function and phase advance) for the Tevatron, as well as studies of non-linear perturbations from sextupole and octupole elements. After successful operations of the Tevatron AC dipole system, a similar system will be built for the CERN LHC.

Ryoichi Miyamoto was born in Tokyo in 1975. He earned a BSc in Physics in 1999 from Tokyo Science University, and then moved to the University of Texas at Austin where he earned his PhD degree in Physics in 2008 for work on the Fermilab Tevatron beam diagnostics using an AC dipole. His supervisors were Prof. Sacha Kopp of the University of Texas and Dr Michael Syphers of Fermilab. Presently, he is a Toohig Fellow of the US LARP Collaboration and works at Brookhaven National Laboratory.

Ryoichi is honoured "For his novel development of a resonant AC dipole and associated modeling techniques which enabled fast diagnostics of linear and nonlinear optics of storage rings with particular applications to the Tevatron."

# Awards

## **IEEE-NPSS Particle Accelerator Science and Technology (PAST) Award 2009**

Awards of the Particle Accelerator Conference given on behalf of the Nuclear and Plasma Science Society of the IEEE and sponsored by NPSS. Two awards are given to recognize outstanding contributions to the development of particle accelerator technology. Each award includes \$2000 and a plaque.

The recipients are Prof. Chan Joshi of UCLA and Dr. Kiyomi Seiya of Fermilab.

Chandrashekhar Joshi is a Distinguished Professor of Electrical Engineering and the Director of the Center for High Frequency Electronics at University of California Los Angeles . He is a fellow of the APS, IEEE and IoP (U.K.).

Joshi is known for his seminal contributions and leadership in the development of a new interdisciplinary field: Plasma Accelerators. Soon after arriving at UCLA in the early 1980s, he started a research effort on electron acceleration by space-charge density waves excited in a plasma using powerful laser pulses. Although such waves were easily excited using a two-frequency laser pulse, the so-called beat-wave technique, acceleration of electrons by such waves proved to be very challenging. After almost a decade of painstaking work his group showed in the early 1990s that externally injected electrons could be trapped and accelerated with gradients exceeding 1 GeV/m over centimeter scale plasmas.

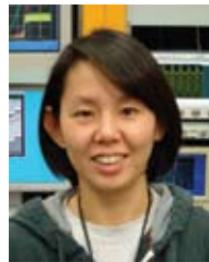
In order to extend the interaction length of a plasma accelerator to a meter-scale and thereby gain energies of interest to high energy physics community, Professors Joshi, Katsouleas (USC) and Siemann (SLAC) formed a collaboration that conducted a series of elegant experiments on beam-driven plasma accelerators. These experiments culminated in 2006 with the demonstration of energy doubling of 42 GeV electrons from the SLAC linac using a meter long plasma structure.

Professor Joshi received the 2009 IEEE/NPSS Particle Accelerator Science and Technology Award “ For his pioneering role, scientific contributions and leadership in the development of laser and particle driven plasma accelerators”.



## **IEEE-NPSS Particle Accelerator Science and Technology (PAST) Award 2009 Con't**

Dr. Seiya has been in charge of the Fermilab Main Injector (MI) slip stacking project since 2002. Slip stacking became operational in the MI in December 2004. This was the first time it had been implemented in any accelerator. Slip stacking increased the beam intensity to anti-proton production target by 70%, which was a major factor in the achievement of the Run II luminosity goal. The scheme was extended to multi-batch stacking for the NuMI neutrino experiment, helping to increase total MI beam power by 40% to 400 kW. She plans to work on implementing the slip stacking process in the Fermilab Recycler, used as an injector for the MI, in order to further increase the total MI beam power to 700 kW for the Nova operation.



Dr. Seiya received the 2009 IEEE/NPSS Particle Accelerator Science and Technology Award "For developing and successfully implementing slip stacking of proton batches injected into the Fermilab Main Injector resulting in a significant increase beam intensity."

## Awards

### 2009 IEEE Particle Accelerator Science and Technology Doctoral Student Award

This Award is given to recognize significant and innovative technical contributions to the field of particle accelerator science and technology as demonstrated in a student's doctoral thesis.

The prize includes a certificate and a cash award.



Awarded to Efthymios Kallos

Thesis Title: Plasma Wakefield Accelerators Using Multiple Electron Bunches

An extract from Kallos' Thesis Abstract:

As...plasma acceleration technologies mature, one of the main future challenges is to mono-energetically accelerate a second trailing bunch by multiplying its energy in an efficient manner...The work presented here analyzes the use of multiple electron bunches in order to enhance certain plasma acceleration schemes. Specifically, the acceleration of a trailing electron bunch in a high-gradient wakefield driven by a preceding bunch is demonstrated experimentally for the first time... Additionally, it is found ... that by using multiple bunches to drive the wakefields, the energy of a trailing bunch could be efficiently multiplied in a single stage, thus possibly reducing the total length of the accelerator to a more manageable scale.

Kallos performed this research at the Electrical Engineering Department of the University of Southern California in Los Angeles under the supervision of Thomas Katsouleas.

Presently Kallos is a researcher at Queen Mary University of London, England.

## **U.S. Particle Accelerator School Prize for Achievement in Accelerator Physics and Technology**

The US Particle Accelerator School honors individuals by recognizing their outstanding achievements over the full range of accelerator physics and technology.

The awards are made possible by donations from Brookhaven Science Associates; Fermi Research Alliance, LLC; and Jefferson Science Associates.

Awarded to  
Yoshiharu Mori,  
Kyoto University , KURRI



For his contributions to the rebirth of fixed-field alternating gradient accelerators with numerous practical applications, and to the development of a novel type of rf cavity and a compact neutron source.

Yoshiharu Mori is currently a professor at the Research Reactor Institute of Kyoto University in Japan. He graduated from Kyusyu University in 1972 where he received a Doctorate of Engineering 1977. Mori-san then became a research associate at KEK, an associate professor at KEK in 1987 and was promoted to professor of Institute for Nuclear Study of Tokyo University in 1995 and then moved to Kyoto University in 2005. His scientific achievements are numerous. Development of optically pumped polarized ion sources; for this work, he received the "IEEE-PAC Technology Award" in 1993. During 1992-1995 he studied heavy ion acceleration in synchrotrons.

From 1995 to the present he worked on three main developments. (1) Design of the JPARC proton synchrotrons (3-GeV & 50-GeV) and their construction. (2) Development of broad-band, high-gradient RF cavity with magnetic alloy for hadron accelerators. (3) FFAG accelerators starting with the POP (world's first proton FFAG), construction of 150 MeV proton FFAG accelerator at KEK as prototype for applications such as ADS experiment at Kyoto University, a Japanese neutrino factory, the PRISM-FFAG for muon phase rotation, the ERIT (emittance recovery internal target) neutron source for BNCT with ionization cooling at Kyoto University, and development of electron FFAGs for industrial applications.

## Awards

### USPAS Prizes for Achievement in Accelerator Physics and Technology Cont'd

Awarded to  
John Lewellen,  
Argonne National Laboratory



For his contributions to high-brightness electron beam source design, in particular his seminal work on novel cavity geometries, field-emission cathode gating, and test facility design construction and operation.

John Lewellen received his Bachelor's degree in Physics from Case Western Reserve University in 1991, and his Ph.D. in Applied Physics from Stanford University in 1996. Lewellen then went to the Advanced Photon Source at Argonne National Laboratory, where he worked on the APS SASE-FEL project. Lewellen was a founding member of the Argonne Department of Defense Project Office, where he has served as the Beam Physics leader. In 2007, Dr. Lewellen accepted a Research Associate Professor position at the Naval Postgraduate School, in Monterey, CA, as a joint appointment. His work there entails the development and construction of a high-brightness beam research facility.

## Newly Elected APS Fellows

The following list of Division of Particle Beams (DPB) fellows was approved by the 2008 APS Council.

Fox, John

SLAC

Citation: For leadership in developing instrumentation and instability control systems for colliders and light sources, for applying control formalism to accelerator problems, and for developing novel beam instruments and new formalisms.

Kneisel, Peter

Thomas Jefferson National Accelerator Facility

Citation: For pioneering contributions to superconducting rf science and technology through a wide range of research and development advances.

Mtingwa, Sekazi

Massachusetts Institute of Technology

Citation: For his definitive treatment of intrabeam scattering, his contributions to the wakefield acceleration, and his early recognition of the fixed target physics potential of the next generation electron-positron collider.

Rao, Triveni

Brookhaven National Laboratory

Citation: For pioneering work on metal photo cathodes for high brightness RF injectors.

Seryi, Andrei

Stanford University

Citation: For his leadership in developing beam delivery systems for linear colliders and his contributions to the theory of ground motion, vibration, and feedback accelerators and particularly linear colliders.

Shiltsev, Vladimir D.

Fermilab

Citation: For advancing the understanding of performance limitations in accelerators, in particular for seminal work on ground motion in electron-positron linear colliders and electron lens beam compensation in large hadron colliders.

## Awards

### Newly Elected IEEE-NPSS Fellow Relevant to the Field of Particle Accelerators

Ilan Ben-Zvi, a senior physicist at Brookhaven National Laboratory, has been recognized as an IEEE Fellow "for leadership in superconducting accelerators, high brightness electron sources and free electron lasers."

After earning a Ph.D. in physics from the Weizmann Institute of Science, Israel, in 1970, Ben-Zvi went to Stanford University, where he helped develop superconducting linear accelerators. In 1975, he returned to Israel.

From 1980-1982, Ben-Zvi was a visiting associate professor at Stony Brook University where he helped to establish an accelerator and invented accelerator systems now used throughout the world. Ben-Zvi joined Brookhaven Lab as a visiting physicist in 1988 and rose through the ranks to become a senior physicist in 1997. He is currently the associate chair for superconducting accelerator R&D at Brookhaven's Collider-Accelerator Department and leads the SC accelerator and electron cooling group which pursues the development of state-of-the-art SCRF accelerator elements and high-current, high-brightness electron beams. As director of Brookhaven Lab's Accelerator Test Facility for 15 years, Ben-Zvi saw to its development as the premiere advanced accelerator physics facility in the world.

In addition to the new IEEE Fellowship, Ben-Zvi is also a Fellow of both the American Association for the Advancement of Science and the American Physical Society. He is a past recipient of the IEEE Accelerator Science and Technology Award and the IEEE Nuclear & Plasma Sciences Society Merit Award. He received Brookhaven Lab's Science and Technology Award in 2001 and the Free Electron Laser Prize in 200. He has served in leading roles in many scientific meetings and panels, including the National Academy of Science and FEL'95, PAC'99 and FEL'01 international meetings.



# Student Program & Travel Awards

Student posters should be mounted in the Pacific Ballroom by 14:00 on Sunday, May 3 and manned from 14:00 to 16:00 for judging, then again from 17:00 to 19:00. In accordance with the guidelines for publication of contributions, these posters must also be displayed during the regular poster sessions.

## Student Travel Grant Awards

Meier, Evelyne	<i>Monash Univ, Australia</i>
Buffechoux, Sébastien	<i>Ecole Polytech, France</i>
Froese, Michael	<i>MPI Heidelberg, Germany</i>
Previtali, Valentina	<i>CERN, Switzerland</i>
Blumenfeld, Ian	<i>Stanford, USA</i>
Maxwell, Timothy	<i>Northern Illinois, USA</i>
Shiraishi, Satomi	<i>Chicago, USA</i>
Wei, Sumin	<i>CIAE, China</i>
Qian, Houjun	<i>Tsinghua, China/BNL, USA</i>
Rihaoui, Marwan	<i>Northern Illinois, USA</i>
Mazzolari, Andrea	<i>Ferrara, Italy</i>
Chunjarean, Somjai	<i>Suranaree Univ., Thailand</i>
Huang, Nuan-Ya	<i>Tsing Hua Univ., Taiwan</i>
McGuinness, Christopher	<i>SLAC, USA</i>
Stefanic, Rok	<i>Control System Lab, Slovenia</i>
Khan, Vasim	<i>Manchester, UK</i>
Kutsaev, Sergey	<i>Moscow Eng Phys I., Russia</i>
Nakao, Masao	<i>Kyoto, Japan</i>
Yu, Kai	<i>Peking Univ., China</i>
Klein, Marit	<i>Karlsruhe, Germany</i>
Nurnberg, Frank	<i>LBNL, USA</i>
Petronio, Marco	<i>Trieste, Italy</i>
Zang, Lei	<i>Liverpool, UK</i>
Sheehy, Suzanne	<i>Oxford, UK</i>
Pizzato Nunes, Roger	<i>IF-UFRGS, Brazil</i>
Marsh, Roark	<i>MIT, USA</i>
Micheler, Maximilian	<i>London, UK</i>
Valles, Nicholas	<i>Cornell, USA</i>
Renier, Yves	<i>Orsay, France</i>
Lee, David	<i>Imperial College, UK</i>
He, Feisi	<i>Peking Univ., China</i>
Kallos, Efthymios	<i>Queen Mary University, UK</i>
Panagiotidis, Kosmas	<i>Liverpool, UK</i>
Salvant, Benoit	<i>Lausanne, Switzerland</i>
Li, Renkai	<i>Tsinghua, China</i>
Wagner, Sigrid	<i>ETHZ-CERN, Switzerland</i>
Xie, Zaipeng	<i>Wisconsin, USA</i>
Fraser, Matthew	<i>Manchester, UK</i>
Helle, Michael	<i>Georgetown Univ., USA</i>
Geng, Huiping	<i>SLAC, USA</i>
Montgomery, Eric	<i>Maryland, USA</i>

## Student Program & Travel Awards

Ehrlichman, Michael	<i>Cornell, USA</i>
Park, Chong	<i>Indiana, USA</i>
Bauer, Christopher	<i>TU Darmstadt, Germany</i>
Manukyan, Koryun	<i>Yerevan, Armenia</i>
Li, Yingjie	<i>NSCL, USA</i>
Hemsing, Erik	<i>UCLA, USA</i>
Turenne, Melanie	<i>Muons Inc/Florida State Univ., USA</i>

The Joint Universities Accelerator School (JUAS) scholarship is sponsored by the European Physical Society (EPS-AG) and brings an outstanding student to the accelerator conference in the year its awarded.

This year's scholarship is awarded to Christopher Bauer, Technical University, Darmstadt, Germany.

Mr. Bauer is studying nuclear physics and conducts RIB experiments at the REX-ISOLDE facility at CERN.

## **Satellite Meetings**

---

There are a number of satellite meetings scheduled during PAC09. The rooms, dates and times listed are subject to change, as this is an evolving schedule.

To book a satellite meeting during the conference, contact the Conference Coordinator at pac09@triumf.ca.

### **April 30 - May 2**

EPICS Collaboration

(<http://isacwsvr.triumf.ca.ca/epics09/meeting.pl>)

*Hyatt Plaza*

### **Saturday, May 2 – 17:00 to 23:30**

APS-DPB Nomination Committee

*Hyatt, Stanley Room*

### **Sunday, May 3 – 17:00 to 23:30**

APS-DPB EC

*Hyatt, Cypress Room*

### **Sunday, May 4 – 12:00 to 14:00**

AAC OC

*Fairmont Hotel Vancouver, Moresby Room*

### **Monday, May 4 – 12:15 to 13:00**

APS-DPB Annual Business Meetings

*Hyatt, Grouse Room*

### **Sunday, May 4 – 13:30 to 18:00**

EPICS Training Lectures – 13:00 to 17:00

*Hyatt, Seymour Room*

### **Tuesday, May 5 – 12:00 to 15:00**

PRST-AB

*Hyatt, Cypress Room*

### **Tuesday, May 5 – noon**

LINAC10 IOC

*Hyatt, Grouse Room*

### **Tuesday, May 5 – 13:00 to 18:00**

Magnet Workshop

*Hyatt, Stanley Room*

### **Tuesday, May 5 – 18:30 to 20:00**

Women in Engineering Reception

*Hyatt, English Bay Foyer, 34th floor*

### **Tuesday, May 5 – 16:00 to 24:00**

Editor Meeting for Accelerator Handbook

*Fairmont Hotel Vancouver, Gabriola Room*

# Satellite Meetings

**Wednesday, May 6 – 08:30 to 12:00**

Magnet Workshop

*Hyatt, Stanley Room*

**Wednesday, May 6 – 11:45 to 14:00**

BIW2010

*Fairmont Hotel Vancouver, Cortes Room*

**Wednesday, May 6 – 12:30 to 15:00**

PAC IOC

*Hyatt, Grouse Room*

**Wednesday, May 6 – 19:00 to 22:00**

PACCC

*Hyatt, Grouse Room*

**Wednesday, May 6 – 18:00 to 20:00**

ICFA Beam Dynamics Panel Meeting

*Fairmont Hotel Vancouver, Cortes Room*

**Wednesday, May 6 – 17:30 to 19:30**

APS Meet the Journal Editors Reception

*Hyatt, English Bay Room*

**Wednesday, May 6 – 18:30 to 20:00**

OC for 2nd ICFA International Workshop

*Hyatt, Seymour Room*

**Thursday, May 7 – 12:00 to 15:00**

JACoW Steering Committee

*Fairmont Hotel Vancouver, Saturna Room*

**Thursday, May 7 – 13:00 to 16:00**

RF Power Amp Development

*Hyatt, Cypress Room*

**Thursday, May 7 – 16:00 to 17:00**

RAST Editorial Board

*Hyatt, Grouse Room*

**Friday, May 8 – 12:00 to 20:00**

CERN SPL Collaboration Meeting

*Fairmont Hotel Vancouver, Cortes Room*

**Friday, May 8 – 12:30 to 14:00**

PAC09 LOC & IPAC Debrief

*Hyatt, Grouse*

*The Cypress, English Bay, Grouse and Stanley rooms are all located on the 34th floor of the Hyatt Regency Vancouver Hotel.*

## **WIRELESS INTERNET**

---

Wireless internet is available to all delegates throughout the public areas of the Hyatt Regency Vancouver Hotel.

Username: PAC09

Password: pac09

An Internet Café is available on the 4<sup>th</sup> floor of the Hyatt. A few stations are also available in the Exhibit Hall. Printers are available in the Internet Café.

Sunday	15:00 - 17:30
Monday	08:00 - 18:00
Tuesday	08:00 - 18:00
Wednesday	08:00 - 18:00
Thursday	08:00 - 18:00
Friday	08:00 - 14:00

## **SPEAKERS**

---

The speaker preparation room is located on the Regency Level of the Hyatt (3<sup>rd</sup> floor) in the Windsor Room. This is an area where speakers can preview/test their presentations. Please note that all speakers must give their presentations with the computer systems set up in the session rooms. Use of individual laptops cannot be accommodated.

*All talks MUST be uploaded at least 24 hours in advance.*

## **POSTERS**

---

The poster boards will have a single surface measuring 4' x 4' (1.22 m x 1.22 m) so they will accommodate an ARCH E or A0 sized poster in either landscape or portrait orientation.

## **PROCEEDINGS**

---

### **Proceedings Office**

The Proceedings Office is located on the Regency Level of the Hyatt (3<sup>rd</sup> floor) in the Oxford Room. Editorial staff will process papers before and during the conference.

The paper submission deadline was Thursday, April 30. Authors are requested to check on their papers via the status board that will be located in or near the Proceedings Office.

Proceedings Office hours:

Monday	08:30 - 18:00
Tuesday	08:30 - 18:00
Wednesday	08:30 - 18:00
Thursday	08:30 - 18:00
Friday	08:30 - 14:00

# Scientific Program

The conference proceedings will be published on DVD-ROM and on the JACoW Website: <http://www.JACoW.org>

## Copyright Forms

A copyright form must be turned in before a paper can be accepted for publication. Copyright forms customized for each paper should be downloaded via the link in SPMS and submitted at Paper Reception.

### ***What happens after your paper has been submitted?***

The PAC09 proceedings will be published by the JACoW Joint Accelerator Conferences editorial team. To ensure consistency of the conference proceedings, all papers have to meet formal criteria, specified by JACoW.

With the end of the paper submission time the conference editors start to perform the formal paper checks and conversions according to the JACoW publishing requirements. Once an editor is assigned to your paper he/she produces a PDF file from the uploaded PS file. This PDF file is checked and, if necessary, minor formal corrections are done. The corrected PDF file is uploaded again into your conference database profile. If required, you may be requested to report to the Paper Reception desk to accept the changes made or to speak to an editor if there are concerns with your paper.

To see the “dot board” go to:

<http://appora.fnal.gov/pls/pac09/eDot.html>

Green dot: The paper is ready for publication.

Yellow dot: Changes or corrections have been made (on the PDF or the original Word/LaTeX source file) and the author is requested to come to Paper Reception to proof-read the modified version.

Red dot: A major problem occurred. It may be that a file is missing or corrupted and the paper cannot be processed, or there are significant errors with the paper. The author will need to go to Paper Reception immediately to correct the problem.

## Student Poster Session

A special poster session for students will take place during delegate registration on Sunday, May 3<sup>rd</sup>. The student category includes: a student registered for a Ph.D. or diploma in accelerator physics or engineering; a Post Doctoral Fellow in accelerator physics or engineering; or a trainee accelerator physicist or engineer in the educational phase of their professional career.

## **Scientific Program**

The schedule included herein details the scientific program with the program code, title and authors of each paper (only publicly available information will be discussed). After the opening plenary in the Fairmont Hotel Vancouver BC Ballroom, the conference moves to the Hyatt Regency Vancouver for all other sessions.

### **Oral Sessions**

The oral sessions will be in the Plaza Ballroom, Georgia Ballroom and Regency A&B. A preview/testing area is available for speakers in the Windsor Room.

Please note that all speakers must give their presentations from the computer systems set up in the session rooms. Use of individual laptops cannot be accommodated.

### **Poster Sessions**

There will be eight poster sessions; one on Monday, two on Tuesday, Wednesday and Thursday, and one on Friday. These eight poster sessions will be held at the Hyatt in the Regency and Plaza Foyers, and additionally Regency E&F on Thursday and Friday.

Day	Morning	Afternoon
Monday	none	14:00 – 18:30 manned 16:30 – 18:30
Tuesday	08:30 – 12:30 manned 10:30 – 12:30	14:00 – 18:30 manned 16:30 – 18:30
Wednesday	08:30 – 12:30 manned 10:30 – 12:30	14:00 – 18:30 manned 16:30 – 18:30
Thursday	08:30 – 12:30 manned 10:30 – 12:30	14:00 – 18:00 manned 16:00 – 18:00
Friday	08:30 – 12:30 manned 10:30 – 12:30	none

Posters should be in place by the beginning of the scheduled session time, should be taken down at the end of the session, and manned for the latter 2 hours of each session. In those cases where presenters have two or more posters on both floors of the hotel, simultaneously, they are requested to split their time equally between the floors. Any posters not removed by 13:00 and 19:00 will be removed by staff and discarded.

Authors are reminded that no contributions are accepted for publi-

# **Identification of Contributions**

cation only. Any paper that is not presented at the conference will be excluded from the proceedings.

Any accepted contributions that are not presented in the oral or poster sessions at the conference will be excluded from the proceedings.

The Scientific Program Committee reserves the right to refuse papers for publication that have not been properly presented or staffed in the poster sessions. Manuscripts of contributions to the proceedings (or enlargements of them) are not considered to be posters, and papers presented in this way will not be accepted for publication.

## **Identification of Contributions**

The date and type of presentation for each contribution in the program can be easily identified from the program code.

Using the example DDTLLP###:

- The first two letters indicate the day: MO, TU, WE, TH, FR.
- The third character, indicates the time:

- 1 (08:30 - 10:30)
- 2 (11:00 - 12:00)
- 3 (14:00 - 16:00)
- 4 (16:30 - 18:00)

For poster sessions, the third letter indicates the session:

- 5 (08:30 - 12:30)
- 6 (14:00 - 18:30)

- The 4th and 5th letters indicate the room:

- |    |   |
|----|---|
| BC | (Fairmont Hotel Vancouver, British Columbia Ballroom) |
| GA | (Hyatt Regency, Georgia A)                            |
| GB | (Hyatt Regency, Georgia B)                            |
| GR | (Hyatt Regency, Georgia Room)                         |
| PB | (Hyatt Regency, Plaza Ballroom)                       |
| PF | (Hyatt Regency, Plaza Foyer)                          |
| RA | (Hyatt Regency, Regency A&B)                          |
| RB | (Hyatt Regency, Regency Ballroom)                     |
| RE | (Hyatt Regency, Regency E&F)                          |
| RF | (Hyatt Regency, Regency Foyer)                        |

- The 6th character shows the presentation type:

- |   |               |
|---|---------------|
| I | (Invited)     |
| C | (Contributed) |
| P | (Poster)      |

- Finally, the sequence number within the session (two digits for orals, and 3 digits for posters).

**Monday, May 4, 2009****Morning Session**

Chairman: Shane Koscielniak

*Opening Plenary*

Special/COLLID/LAMEAR/HEHAC

**Fairmont Hotel Vancouver, BC Ballroom****08:30 – 09:00 Welcome**

Paul Schmor, TRIUMF

09:00 Why Accelerators?

Michael Turner (Univ. of Chicago)

09:30 Status of Tevatron Run II

Valeri Lebedev (FNAL)

10:00 Status of LHC Commissioning

Jorg Wenninger (CERN)

**10:30 – 11:00 Coffee Break**

Chairman: Shin-Ichi Kurokawa, KEK

*Low & Medium Energy Accelerators,**High-Energy Hadron Accelerators*

11:00 Probing the Origins of the Cosmos

Justin Khouri, (Perimeter Institute)

11:30 Radioactive Beams for Astrophysics

A. Shotter (Edinburgh Univ. &amp; TRIUMF)

12:00 Status of J-PARC

Yoshishige Yamazaki (KEK &amp; JAEA)

**12:30 Lunch****\*\*Please note that there is a venue change after lunch\*\*****Afternoon Session**

Chairman: Michael Sullivan

*Circular Colliders***Hyatt Regency, Regency A&B**

14:00 Recent Highlights from KEKB

K. Oide (KEK, Ibaraki)

14:30 Second-Generation B-Factory Proposals and Lessons  
from B-Factory Operation

J. Seeman (SLAC, Menlo Park, California)

15:00 Commissioning of BEPC-II

C. Zhang (IHEP Beijing, Beijing)

15:30 Super-B Project Status and Perspectives

M. Biagini (INFN/LNF, Frascati (Roma))

15:45 Dynamical Beta Effects in the Measurement of  
Horizontal Beam Sizes

K. Ohmi (KEK, Ibaraki)

# **MONDAY, May 4**

Chairman: Leonid Rivkin  
*Light Sources & FELs*  
**Hyatt Regency, Plaza**

- 14:00 Possible Upgrade of the Advanced Photon Source with an Energy Recovery Linac  
M. Borland (ANL, Argonne, Illinois)
- 14:30 Accelerator Physics Challenges for the NSLS-II Project  
S. Krinsky (BNL, Upton, New York)
- 15:00 State of Beam Stability and Control of Synchrotron Light Sources  
C. Steier (LBNL, Berkeley, California)
- 15:30 Commissioning of the Shanghai Light Source  
Zhentang Zhao (SINAP, Shanghai)

Chairman: Mats Lindroos  
*Low & Medium Energy Accelerators*  
**Hyatt Regency, Georgia**

- 14:00 Operating Experience with the RIKEN Radioactive Isotope Beam Factory  
N. Fukunishi (RIKEN Nishina Center, Wako, Saitama)
- 14:30 Neutron-Rich Beams from  $^{252}\text{Cf}$  Fission at ATLAS - The CARIBU Project  
R. Pardo (ANL, Argonne, Illinois)
- 15:00 FRIB: A New Accelerator Facility for the Production of Radioactive Beams  
R. York (NSCL, East Lansing, Michigan)
- 15:30 High Power RFQs  
A. Pisent (INFN/LNL, Legnaro, Padova)

## **16:00 Break**

Chairman: Maury Tigner  
*Circular Colliders*  
**Hyatt Regency, Regency A&B**

- 16:30 Experience with DAFNE Upgrade Including Crab Waist  
C. Milardi (INFN/LNF, Frascati (Roma))
- 17:00 Status of LHC Crab Cavity Beam Studies and Simulations  
R. Calaga (BNL, Upton, Long Island, New York)
- 17:15 Optimization of Integrated Luminosity of the Tevatron  
C. Gattuso (Fermilab, Batavia, Illinois)
- 17:30 First Polarized Proton Collision at a Beam Energy of 250 GeV in RHIC  
M. Bai (BNL, Upton, Long Island, New York)
- 17:45 Weak-Strong Simulation of Head-On Beam-Beam Compensation in the RHIC  
Y. Luo (BNL, Upton, Long Island, New York)

Chairman: Arne Freyberger  
*Light Sources & FELs*  
**Hyatt Regency, Plaza**

- 16:30 Current Status and Future Perspectives of Energy Recovery Linacs  
R. Hajima (JAEA/ERL, Ibaraki)
- 17:00 Commissioning Results with Multi-Pass ERL  
N. Vinokurov (BINP SB RAS, Novosibirsk)
- 17:30 Developments for Cornell's X-ray ERL  
James Crittenden (Classe, Ithaca, NY)
- 17:45 The Wisconsin Free Electron Laser Initiative  
Joseph Bisognano (US-Madison/SRC, Madison, Wisconsin)

Chairman: Sandra Biedron  
*Accelerator Technology*  
**Hyatt Regency, Georgia**

- 16:30 High Power Fast Ramping Power Supplies  
I. Marneris (BNL, Upton, Long Island, New York)
- 17:00 Developments in Solid-State Modulator Technology  
Towards High Availability  
D. Anderson (ORNL, Oak Ridge, Tennessee)
- 17:30 Laser Systems for Next Generation Light Sources  
M. Danailov (ELETTRA, Basovizza, Trieste)

Chairman's Reception – 19:00  
**Hyatt Regency 34th Floor**

# TUESDAY, May 5

## Tuesday May 5, 2009

### Morning Session

Chairman: Soren Prestemon  
*Magnets*  
**Hyatt Regency, Regency A&B**

- 08:30 Special Magnet Designs and Requirements for Next Generation Light Sources  
R. Gupta (BNL, Upton, Long Island, New York)
- 09:00 Non-Scaling FFAG Magnet Design Challenges  
N. Marks(STFC/DL/ASTeC, Daresbury ...)
- 09:30 Performance of the LHC Magnet System  
L. Rossi (CERN, Geneva)
- 10:00 Nb3Sn Magnets for the LHC Upgrade  
G. Sabbi (LBNL, Berkeley, California)

Chairman: Panagiotis Spentzouris  
*Beam Dynamics & EM Fields*  
**Hyatt Regency, Plaza**

- 08:30 Fully 3D Multiple Beam Dynamics Processes Simulation for the Tevatron  
E. Stern (Fermilab, Batavia, Illinois)
- 09:00 Simulating Electron-Ion Dynamics in Relativistic Electron Coolers  
D. Bruhwiler (Tech-X, Boulder, Colorado)
- 09:30 A Vlasov-Maxwell Solver to Study Microbunching Instability in the Fermi@Elettra First Bunch ...  
G. Bassi (Cockcroft Institute, Warrington, ...)
- 10:00 Application of the Reduction of Scale Range in a Lorentz Boosted Frame to the Numerical Simulation...  
J-L Vay (LBNL, Berkeley, California)

Chairman: Carole Johnstone  
*Lepton Accelerators*  
**Hyatt Regency, Georgia**

- 08:30 Road to a Plasma Wakefield Accelerator Based Linear Collider  
M. Hogan (SLAC, Menlo Park, California)
- 09:00 R&D Toward a Neutrino Factory and Muon Collider  
M. Zisman (LBNL, Berkeley, California)
- 09:30 Progress Towards a Muon Collider  
R. Palmer (BNL, Upton, Long Island, New York)
- 10:00 FFAG Designs for the International Design Study for the Neutrino Factory  
J. Berg (BNL, Upton, Long Island, New York)

- 10:15 Muon Capture and Bunching in the International Design Study for a Neutrino Factory  
D. Neuffer (Fermilab, Batavia, Illinois)

**10:30 Break**

Chairman: Yoshiro Ishi  
*Applications of Accelerators*  
**Hyatt Regency, Regency A&B**

- 11:00 Development of the IFMIF/EVEDA Accelerator  
A. Mosnier, (CEA, Gif-sur-Yvette, IFMIF/EVEDA)  
11:30 Accelerator R&D for the European ADS Demonstrator  
J-L Biarrotte (IPN, Orsay)

Chairman: Martin Berz  
*Beam Dynamics & EM Fields*  
**Hyatt Regency, Plaza**

- 11:00 Space-Charge Simulations of Non-Scaling FFAGs  
Using PTC  
D. Abell (Tech-X, Boulder, Colorado)  
11:15 Recent Improvements to CHEF, A framework for  
Accelerator Computations  
J-F Ostiguy (Fermilab, Batavia, Illinois)  
11:30 Theory and Applications of Lattice with Negative  
Momentum Compaction Factor  
Y. Senichev (FZJ, Julich)  
11:45 Transport of Ultra-Short Electron Bunches in a  
Free-Electron Laser Driven by a Laser-Plasma  
Wakefield Accelerator  
M. Anania (USTRAT/SUPA, Glasgow)

Chairman: Carlos Hernandez-Garcia  
*Sources & Injectors*  
**Hyatt Regency, Georgia**

- 11:00 Initial Beam Results from the Cornell High-Current ERL  
Injector Prototype  
I. Bazarov (CLASSE, Ithaca, New York)  
11:30 Femtosecond Photocathode Electron Gun for  
Time-Resolved Electron Diffraction  
J. Yang (ISIR, Osaka)  
11:45 First Observation of an Electron Beam Emitted from a  
Diamond Amplified Photocathode  
X. Chang (BNL, Upton, Long Island, New York)

**12:30 Lunch**

# TUESDAY, May 5

## Afternoon Session

Chairman: Terry Grimm  
*Radio Frequency Systems*  
**Hyatt Regency, Regency A&B**

- 14:00 SRF Experience with the Cornell High-Current ERL  
Injector Prototype  
M. Liepe (Cornell University, Ithaca, New York)
- 14:30 Recent Developments in Low and Medium Beta SRF  
Cavities  
M. Kelly (ANL, Argonne, Illinois)
- 15:00 Progress on Improving SC Cavity Performance for ILC  
R-L Geng (TJNAF, Newport News, Virginia)
- 15:30 Cryomodule Tests of Four Tesla-like Cavities in the STF  
Phase-1.0 for ILC  
E. Kako (KEK, Ibaraki)

Chairman: Elena Shaposhnikova  
*Beam Dynamics & EM Fields*  
**Hyatt Regency, Plaza**

- 14:00 Beam Dynamics and Low Loss Operation of the  
J-PARC Main Ring  
A. Molodzhentsev (J-PARC, KEK & JAEA, Ibaraki-ken)
- 14:30 Linac Code Benchmarking with High-Intensity  
Experiments at UNILAC  
L. Groening (GSI, Darmstadt)
- 15:00 Transverse Schottky Noise with Space Charge  
O. B-Frankenheim (GSI, Darmstadt)
- 15:15 Circularly Inclined Solenoid Channel for 6D Ionization  
Cooling of Muons  
Y. Alexahin (Fermilab, Batavia, Illinois)
- 15:30 Simulation of Space Charge Effects in High Intensity  
Cyclotrons Using OPAL-CYCL  
S. Wei (CIAE, Beijing)
- 15:45 Recent Developments at the NSCL Small Isochronous  
Ring  
Y. Li (NSCL, East Lansing, Michigan)

Chairman: In-Soo Ko  
*Instrumentation*  
**Hyatt Regency, Georgia**

- 14:00 Longitudinal Diagnostics for Short Electron Beam  
Bunches  
H. Loos (SLAC, Menlo Park, California)
- 14:30 Recent Developments in Optical Transition Radiation  
Beam Diagnostics  
R. Fiorito (UMD, College Park, Maryland)

- 15:00 NSLS-II Beam Diagnostics Overview  
O. Singh (BNL, Upton, Long Island, New York)
- 15:30 Bunch Length Detector Based on X-Ray Produced Photoelectrons  
P. Ostroumov (ANL, Argonne, Illinois)
- 15:45 Commissioning and Performance of the LCLS Cavity BPM System  
S. Smith (SLAC, Menlo Park, California)

**16:00 Break**

Chairman: Michael Fazio  
*Radio Frequency Systems*  
**Hyatt Regency, Regency A&B**

- 16:30 Solid State RF Amplifiers for Accelerator Applications  
M. Di Giacomo (GANIL, Caen)
- 17:00 Development of a 10MW Sheet Beam Klystron for the ILC  
D. Sprehn (SLAC, Menlo Park, California)
- 17:30 Modeling and Design of High-Power Inductive Output Tubes  
E. Wright (Beam-Wave Research, Inc., Union City)
- 17:45 Proton Beam Acceleration with MA Loaded RF systems in J-PARC RCS and MR synchrotrons  
M. Yoshii (KEK, Ibaraki)

Chairman: Georg Hoffstaetter  
*Beam Dynamics & EM Fields/Radio Frequency Systems*  
**Hyatt Regency, Plaza**

- 16:30 Emittance Exchange Experimental Results  
R. Fliller (Fermilab, Batavia, Illinois)
- 17:00 Aberration Correction and Electron Optics for Microscopes and Streak Cameras  
W. Wan (LBNL, Berkeley, California)
- 17:30 Performance Comparison of the Large Grain Cavities Treated by EP and CP  
Z. Zong (IHEPP Beijing, Beijing)
- 17:45 Production and Testing Results of Superconducting Cavities for ISAC-II High Beta Section  
V. Zvyagintsev (TRIUMF, Vancouver)

Chairman: Masatoshi Futakawa  
*Accelerator Technology*  
**Hyatt Regency, Georgia**

- 16:30 Operational Experience with the LHC Collimation System  
R. Assmann (CERN, Geneva)

## **TUESDAY, May 5**

- 17:00 Megawatt Class Spallation Target Development  
J. Haines (ORNL, Oak Ridge, Tennessee)
- 17:30 The MERIT High Power Target Experiment at the  
CERN PS  
K. McDonald (PU, Princeton, New Jersey)

Women in Engineering Reception  
Hyatt Regency Seymour Room, 34th floor  
18:15

**Wednesday May 6, 2009**

**Morning Session**

Chairman: Rolf Keitel  
*Controls & Operations*  
**Hyatt Regency, Regency A&B**

- 08:30 New User Interface Capabilities for Control Systems  
K-U Kasemir (ORNL, Oak Ridge, Tennessee)
- 09:00 Securing Control Systems Against Cyber Attacks  
S. Lueders (CERN, Geneva)
- 09:30 Designing and Running for High Accelerator Availability  
F. Willeke (BNL, Upton, New York)
- 10:00 Longevity of Accelerator Control Systems Middleware  
K. Zagar (Cosylab, Ljubljana)
- 10:15 Automated Operation of the MLS Electron Storage Ring  
T. Birke (BESSY GmbH, Berlin)

Chairman: Frank Zimmermann  
*Beam Dynamics & EM Fields*  
**Hyatt Regency, Plaza**

- 08:30 Detailed Electron-Cloud Modeling with CMAD  
M. Pivi (SLAC, Menlo Park, California)
- 09:00 Interactions of Microwaves and Electron Clouds  
F. Caspers (CERN, Geneva)
- 09:30 Cyclotron Resonances in Electron Cloud Dynamics  
C. Celata (LBNL, Berkeley, California)
- 10:00 The New RF Deflectors for the CTF3 Combiner Ring  
D. Alesini (INFN/LNF, Frascati (Roma))
- 10:15 Development of an Ultra-High Repetition Rate S-Band  
RF Gun for the SPARX Project  
L. Faillace (Rome University La Sapienza, Roma)

Chairman: David Findlay  
*High-Energy Hadron Accelerators/Accelerator Technology*  
**Hyatt Regency, Georgia**

- 08:30 Progress with MW-Class Operation of the SNS  
J. Galambos (ORNL, Oak Ridge, Tennessee)
- 09:00 Commissioning of Main Ring for J-PARC  
H. Kobayashi (KEK, Ibaraki)
- 09:30 Design Optimization of PS2  
M. Benedikt (CERN, Geneva)
- 10:00 The Potential of Fluidised Powder Target Technology  
in High Power Accelerator Facilities  
C. Densham (STFC/RAL, Chilton, Didcot, Oxon)
- 10:15 Crystal Collimation Studies at the Tevatron (T-980)  
V. Previtali (CERN, Geneva)

# **WEDNESDAY, May 6**

Chairman: Lucio Rossi  
*Magnets*  
**Hyatt Regency, Regency A&B**

- 11:00 The Superconducting Undulator for the ILC Positron Source  
J. Rochford (STFC/RAL/ASTeC, Chilton, Didcot, Oxon)
- 11:30 Status of Cryogenic Permanent Magnet Undulator Development  
T. Tanaka (RIKEN/SPring-8, Hyogo)

Chairman: Yunhai Cai  
*Beam Dynamics & EM Fields*  
**Hyatt Regency, Plaza**

- 11:00 Local Chromaticity Measurement Using the Response Matrix Fit at APS  
V. Sajaev (ANL, Argonne, Illinois)
- 11:15 A New Mode for Operation with Insertion Devices at UVX  
L. Liu (LNLS, Campinas)
- 11:30 Investigation of Beam - RF Interactions in Twisted Waveguide Accelerating Structures Using Beam ...  
J. Holmes (ORNL, Oak Ridge, Tennessee)
- 11:45 RF Coupling Kicks in the 3.9 GHz 3rd Harmonic Cavity for the XFEL  
E. Gjonaj (TEMF, TU Darmstadt, Darmstadt)

Chairman: Giovanni Ciavola  
*Sources & Injectors*  
**Hyatt Regency, Georgia**

- 11:00 ECR Ion Sources: A Brief History and a Look Into the Next Generation  
T. Nakagawa (RIKEN Nishina Center, Wako, Saitama)
- 11:30 Doubling the SNS H- Beam Current with the Baseline LBNL Ion Source  
B. Han (ORNL RAD, Oak Ridge, Tennessee)
- 11:45 Acceleration of Charge Bred Radioactive Ions at TRIUMF  
F. Ames (TRIUMF, Vancouver)

**12:30 Lunch**

**Afternoon Session**

Chairman: Jean Delayen  
*Radio Frequency Systems*  
**Hyatt Regency, Regency A&B**

- 14:00 Progress in High Gradient Accelerator Structure Research for Future Linear Colliders  
S. Tantawi (SLAC, Menlo Park, California)
- 14:30 High-Power Testing of X-Band CLIC Power Generating Structures  
I. Syratchev (CERN, Geneva)
- 14:45 High-Power Test Results of a 10 MW, High Efficiency, L-Band Multiple Beam Klystron  
T. Habermann (CPI, Palo Alto, California)
- 15:00 Applications of General-Purpose Reconfigurable LLRF Processing Architectures  
L. Doolittle (LBNL, Berkeley, California)
- 15:30 Modeling the LLRF Control of a Multi-Cavity RF Station for Project X  
J. Branlard (Fermilab, Batavia, Illinois)
- 15:45 Development of the Model of a Self-Excited Loop  
R.G. Pillay (TIFR, Mumbai)

Chairman: Oliver Bruning  
*Beam Dynamics & EM Fields*  
**Hyatt Regency, Plaza**

- 14:00 Head-Tail Modes for Strong Space Charge  
A. Burov (Fermilab, Batavia, Illinois)
- 14:30 Study of Beam Dynamics During the Crossing of Resonances in the VEPP-4M Storage Ring  
P. Piminov (BINP S RAS, Novosibirsk)
- 15:00 LHC Beam-Beam Compensation Studies at RHIC  
W. Fischer (BNL, Upton, Long Island, New York)
- 15:30 Nonlinear Dynamics Study of Storage Rings with Super Periods  
H. Hao (USTC/NSRL, Hefei, Anhui)
- 15:45 Advanced Simulation and Optimization Tools for Dynamic Aperture of Non-Scaling FFAGs...  
P. Snopok (UCR, Riverside, CA; MSU, E. Lansing, MI; St. Petersburg State Univ. ...)

Chairman: Ilan Ben-Zvi  
*Instrumentation*  
**Hyatt Regency, Georgia**

- 14:00 Stochastic Cooling in RHIC  
J. Brennan (BNL, Upton, Long Island, New York)

## **WEDNESDAY, May 6**

- 14:30 State of the Art in High-Stability Timing, Phase Reference Distribution and Synchronization Systems  
M. Ferianis (ELETTRA, Basovizza, Trieste)
- 15:00 Development of CW Laser Wire in Storage Ring and Pulsed Laser Wire  
Y. Honda (KEK, Ibaraki)
- 15:30 3-Dimensional Beam Profile Monitor Based on Pulse Storage in an Optical Cavity for Multi-Bunch ...  
K. Sakaue (RISE, Tokyo)
- 15:45 Time-Dependent Phase-Space Mapping of Space-Charge-Dominated Particle Beams  
D. Stratakis (BNL, Upton, Long Island, New York)

### **16:00 Break**

Chairman: Hsiao-Chaun Hseuh  
*Accelerator Technology*  
**Hyatt Regency, Regency A&B**

- 16:30 Optimal Design and Operation of Helium Refrigeration Systems  
V. Ganni (TJNAF, Newport News Virginia)
- 17:00 The CERN LHC - World's Largest Vacuum System  
J. Jimenez (CERN, Geneva)
- 17:30 Fifteen Years Operation Experience of TLS Vacuum Systems  
G-Y. Hsiung (NSRRC, Hsinchu)
- 17:45 The Power Supply System for the SESAME Booster  
S. Varnasseri (SESAME, Amman)

Chairman: Akira Noda  
*Low and Medium Energy Accelerators*  
**Hyatt Regency, Plaza**

- 16:30 EMMA the World's First Non-Scaling FFAG Accelerator  
S. Smith (STFC/DL/ASTeC, Daresbury, Warrington....)
- 17:00 SNS Ring Operational Experience and Power Ramp up Status  
M. Plum (ORNL, Oak Ridge, Tennessee)
- 17:15 A High-Duty Factor Radio-Frequency Quadrupole Accelerator for ADS Study in China  
H. Ouyang (IHEP Beijing, Beijing)
- 17:30 An Electron Linac Photo-Fission Driver for the Rare Isotope Program at TRIUMF  
I. Bylinskii (TRIUMF, Vancouver)
- 17:45 The HITRAP Decelerator Linac at GSI  
F. Herfurth (GSI, Darmstadt)

Chairman: Willem Blokland  
*Instrumentation/Controls & Operations*  
**Hyatt Regency, Georgia**

- 16:30 MR Beam Diagnostics at the First Beam  
Commissioning of the J-PARC MR  
T. Toyama (KEK, Ibaraki)
- 16:45 Measurement of Electron Cloud Development in the  
Fermilab Main Injector Using Microwave Transmission  
N. Eddy (Fermilab, Batavia, Illinois)
- 17:00 First Results from the LHC Beam Instrumentation  
Systems  
E. Bravin (CERN, Geneva)
- 17:15 The Alignment of the LHC  
D. Missiaen (CERN, Geneva)
- 17:30 Machine Protection for the Experiments of the LHC  
R. Appleby (CERN, Geneva)
- 17:45 ALS Top-Off Beam Interlock System  
K. Baptiste (LBNL, Berkeley, California)

# **THURSDAY, May 7**

**Thursday May 7, 2009**

## **Morning Session**

Chairman: Alan Todd

*Applications of Accelerators/Special Topics*

**Hyatt Regency, Plaza**

- 08:30 Applications of Accelerators to Environmental Protection at the Idaho Accelerator Center  
Douglas Wells (IAC, Pocatello, Idaho)
- 09:00 Accelerators for Security Applications  
A. Mishin (AS&E, Billerica, Massachusetts)
- 09:30 Management Concepts & Strategies for the Construction of the European XFEL  
Thomas Hott (DESY, Hamburg)
- 10:00 Techniques for Successful Project Management – Lessons from ORNL SNS  
Suzanne Herron (ORNL, Oakridge, Tennessee)

Chairman: Satoshi Ozaki

*Low & Medium Energy Accelerators/Asian Focus*

**Hyatt Regency, Georgia**

- 08:30 HIRFL-CSR Facility  
Jia-Wen Xiar (IMP, Lanzhou)
- 09:00 Status of the China Spallation Neutron Source Project  
Shinian Fu (IHEP Beijing, Beijing)
- 09:30 Particle Accerators in Korea  
W. Namkung (POSTECH, Pohang, Kyungbuk)
- 10:00 Overview of the Accelerator Programs at the Indian Laboratories  
Vinod Sahni (RRCAT, Indore (M.P.))

## **10:30 Break**

Chairman: Stan Schriber/Steve Holmes

*Louis Costrell Honorary Session*

**Hyatt Regency, Plaza**

- 11:00 Introductions
- 11:02 In momoriam Robert Siemann  
Mark Hogan - Introduced by S. Schriber
- 11:10 New APS-DPB Fellows (6)  
Introduced by S. Holmes & S. Schriber
- 11:17 New IEEE-NPSS Fellow  
Introduced by S. Schriber
- 11:20 2009 IEEE-NPSS Particle Accelerator Science and Technology Awards (2)  
Introduced by S. Schriber

- 11:25 US Particle Accelerator Awards (2)  
Introduced by William Barletta
- 11:30 IEEE Particle Accelerator Science and Technology  
Doctoral Student Award  
Efthymios Kallos - Introduced by S. Schriber
- 11:45 APS/DPB Outstanding Doctoral Thesis in Beam  
Physics  
Ryoichi Miyamoto - Introduced by S. Holmes
- 12:00 Robert R. Wilson Prize for Achievement in Physics of  
Particle Accelerators  
Satoshi Ozaki - Introduced by S. Holmes

**12:30 Luncheon****Afternoon Session**

Chairman: Hiroyuki Hama  
*Light Sources & FELs*  
**Hyatt Regency, Plaza**

- 14:00 Commissioning Status of the LSLS X-ray FEL  
P. Emma (SLAC, Menlo Park, California)
- 14:30 Progress of the SCSS Test Accelerator for  
XFEL/SPring-8  
K. Togawa (RIKEN/SPring-8, Hyogo)
- 15:00 Progress at the Jefferson Lab FEL  
C. Tennant (TJNAF, Newport News, Virginia)
- 15:30 FLASH Operation as an FEL User Facility  
S. Schreiber (DESY, Hamburg)
- 15:45 Demonstration of Efficient Electron-Radiation  
Interaction in a 7th Harmonic EFEL Experiment  
S. Tochitsky (UCLA, Los Angeles, California)

Chairman: Ronald Davidson  
*Pulsed-Power and High-Intensity Beams*  
**Hyatt Regency, Georgia A**

- 14:00 Electron Beam Dynamics in the Long-Pulse,  
High-Current DARHT-II Linear Induction Accelerator  
C. Ekdahl (LANL, Los Alamos, New Mexico)
- 14:30 Status of the Dielectric Wall Accelerator  
G. Caporaso (LLNL, Livermore, California)
- 15:00 Designing Neutralized Drift Compression for Focusing  
of Intense Beam Pulses in a Background Plasma  
I. Kaganovich (PPPL, Princeton, New Jersey)
- 15:30 Progress in Beam Focusing and Compression for  
Target Heating and Warm Dense Matter Experiments  
P. Seidl (LBNL, Berkeley, California)

# THURSDAY, May 7

Chairman: Gunther Geschonke  
*Advanced Concepts*  
**Hyatt Regency, Georgia B**

- 14:00 Two-Beam Linear Colliders/Special Issues  
R. Corsini (CERN, Geneva)
- 14:30 Longitudinal Shaping of Electron Bunches with Applications to the Plasma Wakefield Accelerator  
R. England (SLAC, Menlo Park, California)
- 15:00 Generation of Trains of Subpicosecond Electron Bunches  
V. Yakimenko (BNL, Upton, Long Island, New York)
- 15:30 Positron Transport, Focusing and Acceleration Using Plasma Techniques  
Patric Muggli (USC, Los Angeles, California)

**16:00 Break — Plaza Foyer**

Chairman: Vladimir Litvinenko  
*Light Sources & FELs*  
**Hyatt Regency, Plaza**

- 16:30 LNLS-2: A New High Performance Synchrotron Radiation Source for Brazil  
P. Tavares (LNLS, Campinas)
- 16:45 Recent Developments at Diamond Light Source  
R. Walker (Diamond, Oxfordshire)
- 17:00 Major Upgrade Activity of the PLS in PAL: PLS-II  
S. Nam (PAL, Pohang, Kyungbuk)
- 17:15 Study of Emittance Degradation of Sources in Presence of Transverse RF Deflectors in QBA ...  
H. Ghasem (NSRRC, Hsinchu)
- 17:30 Recent Results of the SPARC FEL Experiments  
M. Ferrario (INFN/LNF, Fracati (Rome))
- 17:45 Performance and Capabilities of Upgraded High Intensity Gamma-Ray Source at Duke University  
Y. Wu (FEL/Duke University, Durham, North Carolina)

Chairman: Francois Meot  
*Applications of Accelerators*  
**Hyatt Regency, Georgia A**

- 16:30 Commissioning of Hadron Therapy Synchrotrons: HIT and CNAO  
T. Haberer (HIT, Heidelberg)
- 17:00 Recent Progress on HIMAC for Carbon Therapy  
K. Noda (NIRS, Chiba-Shi)
- 17:30 PAMELA Overview: Design Goals and Principles  
K. Peach (John Adams Institute, Oxford)
- 17:45 Neutron Source with Emittance Recovery Internal Target  
Y. Mori (KURRI, Kyoto University, Kyoto)

Chairman: James Rosenzweig  
*Advanced Concepts*  
**Hyatt Regency, Georgia B**

- 16:30 Recent Results on Acceleration Mechanisms and Beam Optimization of Laser-Driven Proton Beam  
S. Buffeouchou (ULI, Palaiseau)
- 16:45 Stable, Monoenergetic 50-400 MeV Electron Beams with a Matched Laser Wakefield Accelerator  
S. Banerjee (UNL, Lincoln)
- 17:00 Injection of Electrons into a Laser Wakefield Accelerator, Driven in a Capillary Discharge Waveguide...  
A. Gonsalves (LBNL, Berkeley, California)
- 17:15 Towards a Compact XUV Free-Electron Laser: Characterising the Improving Beam Quality...  
S. Wiggins (USTRAT/SUPA, Glasgow)
- 17:30 Boosted Frame PIC Simulations of LWFA: Towards the Energy Frontier  
S. Martins (Instituto Superior Tecnico, Lisbon)
- 17:45 X-Band Photonic Bandgap (PBG) Breakdown Structure Experiment  
R. Marsh (MIT/PSFC, Cambridge, Massachusetts)

**No-host Bar**  
**Hyatt Regency Vancouver, Plaza Foyer**  
**Fairmont Hotel Vancouver, BC Foyer**  
**18:30**

**Banquet**  
**Hyatt Regency Vancouver, Regency Ballroom**  
**Fairmont Hotel Vancouver, BC Ballroom**  
**19:00**

# **FRIDAY, May 8**

**Friday May 8, 2009**

## Morning Session

**Chairman: Kaoru Yokoya**  
*Lepton Accelerators*  
**Hyatt Regency, Regency A&B**

- 08:30 CLIC Project Overview  
R. Tomas (CERN, Geneva)
- 09:00 The Conversion and Operation of the Cornell Electron Storage Ring as a Test Accelerator (CESR-TA) ...  
M. Palmer (CLASSE, Ithaca, New York)
- 09:30 ATF2 Commissioning  
A. Seryi (SLAC, Menlo Park, California)
- 10:00 Achievements in CTF3 and Commissioning Status  
S. Bettoni (CERN, Geneva)
- 10:15 Update on Optics Modeling for the ATF Damping Ring at KEK  
K. Kubo (KEK, Ibaraki)

**Chairman: Steven Peggs**  
*Circular Colliders*  
**Hyatt Regency, Plaza**

- 08:30 RHIC Progress and Future  
C. Montag (BNL, Upton, Long Island, New York)
- 09:00 Electron-ion Collider Initiatives  
R. Milner (MIT, Middleton, Massachusetts)
- 09:30 LHC Upgrade Scenarios  
F. Zimmermann (CERN, Geneva)
- 10:00 Recent Tevatron Operational Experience  
A. Valishev (Fermilab, Batavia)
- 10:15 The Large Hadron-Electron Collider (LHeC) at the LHC  
F. Zimmermann (CERN, Geneva)

**Chairman: Thomas Roser**  
*High-Energy Hadron Accelerators*  
**Hyatt Regency, Georgia**

- 08:30 Coherent Electron Cooling  
V. Litvinenko (BNL, Upton, Long Island, New York)
- 09:00 Project-X at Fermilab  
S. Holmes (Fermilab, Batavia, Illinois)
- 09:30 Advanced Design of the FAIR Storage Ring Complex  
M. Steck (GSI, Darmstadt)
- 10:00 Polarized Proton Performance AGS in Run-9 Operation  
H. Huang (BNL, Upton, Long Island, New York)
- 10:15 The LHC Injection Tests  
M. Lamont (CERN, Geneva)

**10:30 Break**

Chairman: Arlene Zhang  
*Pulsed-Power and High-Intensity Beams*  
**Hyatt Regency, Regency A&B**

- 11:00 R&D for Linear Induction Accelerators in China  
J. Deng (CAEP/IFP, Mainyang, Sichuan)
- 11:30 Measurement and Analysis of SPS Kicker Magnet Heating and Outgassing with Different Bunch Spacing  
G. Rumolo (CERN, Geneva)
- 11:45 A Fast Kicker Using A Rectangular Dielectric Wakefield Accelerator Structure  
J. Hirshfield (Omega-P, Inc., New Haven, Connecticut)

Chairman: Alex Dragt  
*Beam Dynamics & EM Fields*  
**Hyatt Regency, Plaza**

- 11:00 Advances in Impedance Theory  
G. Stupakov (SLAC, Menlo Park, California)
- 11:30 Gravitational Instability of a Nonrotating Galaxy  
A. Chao (SLAC, Menlo Park, California)

Chairman: Salime Boucher  
*Applications of Accelerators*  
**Hyatt Regency, Georgia**

- 11:00 USPAS and Its Role in Educating the Next Generation of Accelerator Scientists and Engineers  
W. Barletta (MIT, Cambridge, Massachusetts)
- 11:30 The SPIRAL-2 Superconducting Linac  
R. Ferdinand (GANIL, Caen)

**12:30 Lunch**

**Afternoon Session**

Chairman: Paul Schmor, TRIUMF  
*Closing Plenary*  
[LSAFEL, HEHAC, LEAC]  
**Hyatt Regency, Regency Ballroom**

- 14:00 Single Particle Diffraction at FLASH  
M. Bogan (SLAC, Menlo Park, California)
- 14:30 Science and Techniques of Ultra-Fast Electron and Photon Sources  
S. Karsch (MPQ, Garching, Munich; LMU, Garching)

## **FRIDAY, May 8**

- 15:00 The New Generation of Neutron Sources  
Thomas Mason (ORNL, Oak Ridge, Tennessee)
- 15:30 The Neutrino Factory – Final Frontier in Neutrino Physics?  
Alan Bross (Fermilab, Batavia, Illinois)
- 16:00 Progress Toward the International Linear Collider  
Nicholas Walker (DESY, Hamburg)

**16:30 CLOSING REMARKS, Paul Schmor**

Monday, May 4 08:30 – 10:30  
Fairmont Hotel Vancouver, British Columbia Ballroom

**MO1BC — Opening Plenary Session**

*Special, Circular Colliders, Low and Medium Energy Accelerators & Rings,  
High Energy Hadron Accelerators*

**Chair:** S.R. Koscielniak, TRIUMF (Vancouver)

- MO1BCI01 **Why Accelerators?** – *M.S. Turner* (*University of Chicago*)  
MO1BCI02 **Status of the Tevatron Run II** – *V.A. Lebedev* (*Fermilab*)  
MO1BCI03 **Status of LHC Commissioning** – *J. Wenninger* (*CERN*)

Monday, May 4 11:00 – 12:30  
Fairmont Hotel Vancouver, British Columbia Ballroom

**MO2BC — Plenary Session**

*Special, Low and Medium Energy Accelerators and Rings,  
High Energy Hadron Accelerators*

**Chair:** S.-I. Kurokawa, KEK (Ibaraki)

- MO2BCI01 **Probing the Origins of the Cosmos** – *J. Khouri* (*PI*)  
MO2BCI02 **Radioactive Beams for Astrophysics** – *A.C. Shotter* (*Edinburgh University*) *A.C. Shotter* (*TRIUMF*)  
MO2BCI03 **Status of J-PARC** – *Y. Yamazaki* (*J-PARC, KEK & JAEA*)

## **Monday, May 4**

Monday, May 4 14:00 – 16:00  
Hyatt Regency Vancouver, Regency A&B

### **MO3RA — Parallel Oral Session**

*Circular Colliders*

**Chair:** M.K. Sullivan, SLAC (Menlo Park, California)

- MO3RAI01 **Recent Highlights from KEKB – K. Oide (KEK)**
- MO3RAI02 **Second-Generation B-Factory Proposals and Lessons from B-Factory Operation – J. Seeman (SLAC)**
- MO3RAI03 **Construction and Commissioning of BEPCII – C. Zhang, L. Ma, J.Q. Wang (IHEP Beijing)**
- MO3RAC04 **SuperB Project Status and Perspectives – M.E. Biagini, R. Boni, M. Boscolo, T. Demma, A. Drago, S. Guiducci, P. Raimondi, S. Tomassini, M. Zobov (INFN/LNF) K.J. Bertsche, A. Novokhatski, J. Seeman, M.K. Sullivan, U. Wienands, W. Wittmer, G. Yocky (SLAC) S. Bettoni, D. Quattraro (CERN) A.V. Bogomyagkov, I. Koop, E.B. Levichev, S.A. Nikitin, P.A. Piminov, D.N. Shatilov (BINP SB RAS) G. Marchiori (INFN-Pisa) K. Ohmi (KEK) E. Paoloni (University of Pisa and INFN) A. Wolski (Cockcroft Institute)**
- MO3RAC05 **Dynamical Beta Effects in the Measurement of Horizontal Beam Sizes – K. Ohmi, J.W. Flanagan, Y. Funakoshi, K. Oide (KEK) Y. Cai (SLAC)**

Monday, May 4 14:00 – 16:00

Hyatt Regency Vancouver, Plaza Ballroom

### **MO3PB — Parallel Oral Session**

*Light Sources and FELs*

**Chair:** L. Rivkin, PSI (Villigen)

- MO3PBI01 **Possible Upgrade of the Advanced Photon Source with an Energy Recovery Linac – M. Borland (ANL)**
- MO3PBI02 **Accelerator Physics Challenges for the NSLS-II Project – S. Krinsky (BNL)**
- MO3PBI03 **State of Beam Stability and Control in Synchrotron Light Sources – C. Steier (LBNL)**
- MO3PBI04 **Commissioning of the Shanghai Light Source – Z.T. Zhao, H.G. Xu (SINAP)**

Monday, May 4 14:00 – 16:00  
Hyatt Regency Vancouver, Georgia Room

**MO3GR — Parallel Oral Session**  
*Low and Medium Energy Accelerators and Rings*  
**Chair:** M. Lindroos, CERN (Geneva)

- MO3GRI01 **Operating Experience with the RIKEN Radioactive Isotope Beam Factory – *N. Fukunishi, T. Dantsuka, M.K. Fujimaki, A. Goto, H. Hasebe, Y. Higurashi, E. Ikezawa, T. Kageyama, O. Kamigaito, M. Kase, M. Kidera, M. Komiya, H. Kuboki, K. Kumanagai, T. Maie, M. Nagase, T. Nakagawa, J. Ohnishi, H. Okuno, N.S. Sakamoto, Y. Sato, K. Sekiguchi, K. Suda, H. Suzuki, M. Wakasugi, T. Watanabe, Y. Watanabe, K. Yamada, Y. Yano, S. Yokouchi (RIKEN Nishina Center)***
- MO3GRI02 **Neutron-Rich Beams from 252Cf Fission at ATLAS - The CARIBU Project – *R.C. Pardo, S.I. Baker, C.N. Davids, D.R. Phillips, G. Savard, R.C. Vondrasek, G.P. Zinkann (ANL)***
- MO3GRI03 **FRIB: A New Accelerator Facility for the Production of Radioactive Beams – *R.C. York (NSCL)***
- MO3GRI04 **High Power RFQs – *A. Pisent (INFN/LNL)***

## Monday, May 4

Monday, May 4 16:30 – 18:00

Hyatt Regency Vancouver, Regency A&B

### MO4RA — Parallel Oral Session

*Circular Colliders*

**Chair:** M. Tigner, CLASSE (Ithaca, NY)

- MO4RAI01 **Experience with DAFNE Upgrade Including Crab Waist – C. Milardi (INFN/LNF)**
- MO4RAC02 **Status of LHC Crab Cavity Beam Studies and Simulations – R. Calaga, R. de Maria (BNL) R.W. Assmann, J. Barranco, F. Caspers, E. Ciapala, J.-P. Koutchouk, T.P.R. Linnecar, E. Métral, Y. Sun, R. Tomas, J. Tuckmantel, Th. Weiler, F. Zimmermann (CERN) A. Morita, Y. Morita (KEK) J. Qiang (LBNL)**
- MO4RAC03 **Optimization of Integrated Luminosity of the Tevatron – C. Gattuso, M.E. Convery, M.J. Syphers (Fermilab)**
- MO4RAC04 **First Polarized Proton Collision at a Beam Energy of 250 GeV in RHIC – M. Bai, L. Ahrens, J.G. Alessi, A. Bazilevsky, J. Beebe-Wang, M. Blaskiewicz, J.M. Brennan, D. Bruno, J.J. Butler, R. Calaga, T. D’Ottavio, K.A. Drees, A.V. Fedotov, W. Fischer, G. Ganetis, C.J. Gardner, J.W. Glenn, H. Hahn, Y. Hao, T. Hayes, H. Huang, P.F. Ingrassia, A. Kayran, J.S. Laster, R.C. Lee, V. Litvinenko, A.U. Luccio, Y. Luo, W.W. MacKay, Y. Makdisi, G.J. Marr, A. Marusic, G.T. McIntyre, R.J. Michnoff, M.G. Minty, C. Montag, J. Morris, P. Oddo, B. Oerter, F.C. Pilat, E. Pozdeyev, V. Ptitsyn, G. Robert-Demolaize, T. Roser, T. Russo, T. Satogata, V. Schoefer, K. Smith, S. Tepikian, D. Trbojevic, N. Tsoupas, J.E. Tuozzolo, M. Wilinski, A. Zaltsman, A. Zelenski, K. Zeno, S.Y. Zhang, R. de Maria (BNL) I.G. Alekseev, D. Svirida (ITEP)**
- MO4RAC05 **Weak-Strong Simulation of Head-On Beam-Beam Compensation in the RHIC – Y. Luo, N.P. Abreu, J. Beebe-Wang, W. Fischer, C. Montag, G. Robert-Demolaize (BNL) E. McIntosh (CERN)**

Monday, May 4 16:30 – 18:00

Hyatt Regency Vancouver, Plaza Ballroom

### MO4PB — Parallel Oral Session

*Light Sources and FELs*

**Chair:** A. Freyberger, JLAB (Newport News, Virginia)

- MO4PBI01 **Current Status and Future Perspectives of Energy Recovery Linacs – R. Hajima (JAEA/ERL)**

- M04PBI02 **Commissioning Results with Multi-Pass ERL – N. Vinokurov**, *E.N. Dementyev, B.A. Dovzhenko, N. Gavrilov, B.A. Knyazev, E.I. Kolobanov, V.V. Kubarev, G.N. Kulipanov, A.N. Matveenko, L.E. Medvedev, S.V. Miginsky, L.A. Mironenko, V.K. Ovchar, V.M. Popik, T.V. Salikova, M.A. Scheglov, S.S. Serednyakov, O.A. Shevchenko, A.N. Skrinsky, V.G. Tcheskidov, Y. Tokarev, P. Vobly (BINP SB RAS)*
- M04PBC03 **Developments for Cornell's X-Ray ERL – J.A. Crittenden, I.V. Bazarov, S.A. Belomestnykh, M.G. Billing, E.P. Chojnacki, B.M. Dunham, M. P. Ehrlichman, M.J. Forster, G.H. Hoffstaetter, Y. Li, M. Liepe, C.E. Mayes, A.A. Mikhailichenko, H. Padamsee, S.B. Peck, D. Sagan, V.D. Shemelin, A.B. Temnykh, M. Tigner, V. Veshcherevich (CLASSE) D.H. Bilderback, J.D. Brock, S.M. Gruner (CHESS) C. Johnstone (Fermilab)**
- M04PBC04 **The Wisconsin Free Electron Laser Initiative – K. Jacobs, J. Bisognano, M. Bissen, R.A. Bosch, M.A. Green, H. Hoechst, K. J. Kleman, R.A. Legg, R. Reininger, R. Wehlitz (UW-Madison/SRC) W. Graves, F.X. Kaertner, D.E. Moncton (MIT)**

Monday, May 4 16:30 – 18:00  
Hyatt Regency Vancouver, Georgia Room

**MO4GR — Parallel Oral Session**

*Accelerator Technology*

**Chair:** S. Biedron, Argonne National Laboratory, Office of Naval Research Project (Argonne, Illinois)

- M04GRI01 **High Power Fast Ramping Power Supplies – I. Marneris, E.M. Bajon, R. Bonati, T. Roser, J. Sandberg, N. Tsoupas (BNL)**
- M04GRI02 **Developments in Solid-State Modulator Technology towards High Availability – D.E. Anderson (ORNL)**
- M04GRI03 **Laser Systems for Next Generation Light Sources – M.B. Danailov, A.A. Demidovich, R. Ivanov, I. Nikolov, P. Sigalotti (ELETTRA)**

## Tuesday, May 5

Tuesday, May 5 08:30 – 10:30  
Hyatt Regency Vancouver, Regency A&B

### TU1RA — Parallel Oral Session

#### *Magnets*

**Chair:** S. Prestemon, LBNL (Berkeley, California)

- TU1RAI01 **Special Magnet Designs and Requirements for Next Generation Light Sources – R.C. Gupta, A.K. Jain, M. Rehak, J. Skaritka, C.J. Spataro, F.J. Willeke (BNL)**
- TU1RAI02 **Non-Scaling FFAG Magnet Design Challenges – N. Marks (STFC/DL/ASTeC)**
- TU1RAI03 **Performance of the LHC Magnet System – L. Rossi (CERN)**
- TU1RAI04 **Nb3Sn Magnets for the LHC Upgrade – G.L. Sabbi (LBNL)**

Tuesday, May 5 08:30 – 10:30  
Hyatt Regency Vancouver, Plaza Ballroom

### TU1PB — Parallel Oral Session

#### *Beam Dynamics and EM Fields*

**Chair:** P. Spentzouris, Fermilab (Batavia)

- TU1PBI01 **Fully 3D Multiple Beam Dynamics Processes Simulation for the Tevatron – E.G. Stern, J.F. Amundson, P. Spentzouris, A. Valishev (Fermilab)**
- TU1PBI02 **Simulating Electron-Ion Dynamics in Relativistic Electron Coolers – D.L. Bruhwiler (Tech-X)**
- TU1PBI03 **A Vlasov-Maxwell Solver to Study Microbunching Instability in the FERMI@Elettra First Bunch Compressor System – G. Bassi (Cockcroft Institute) G. Bassi (The University of Liverpool) J.A. Ellison, K.A. Heinemann (UNM) R.L. Warnock (SLAC)**
- TU1PBI04 **Application of the Reduction of Scale Range in a Lorentz Boosted Frame to the Numerical Simulation of Particle Acceleration Devices – J.-L. Vay (LBNL)**

Tuesday, May 5 08:30 – 10:30  
Hyatt Regency Vancouver, Georgia Room

**TU1GR — Parallel Oral Session**

*Lepton Accelerators*

**Chair:** C. Johnstone, Fermilab (Batavia)

- TU1GRI01 Road to a Plasma Wakefield Accelerator Based Linear Collider – *M.J. Hogan, I. Blumenfeld, N.A. Kirby, S. Pei, T.O. Raubenheimer, A. Seryi, P. Tenenbaum (SLAC) C. Huang, C. Joshi, W. Lu, W.B. Mori (UCLA) T.C. Katsouleas (Duke University) P. Muggli (USC)***
- TU1GRI02 R&D toward a Neutrino Factory and Muon Collider – *M.S. Zisman (BNL)***
- TU1GRI03 Progress toward a Muon Collider – *R. B. Palmer (BNL)***
- TU1GRC04 FFAG Designs for the International Design Study for the Neutrino Factory – *J.S. Berg (BNL) S. Machida (STFC/RAL/ASTeC)***
- TU1GRC05 Muon Capture and Bunching in the International Design Study for a Neutrino Factory – *D.V. Neuffer (Fermilab) C. Y. Yoshikawa (Muons, Inc)***

Tuesday, May 5 11:00 – 12:00  
Hyatt Regency Vancouver, Regency A&B

**TU2RA — Parallel Oral Session**

*Applications of Accelerators*

**Chair:** Y. Ishi, KURRI (Osaka)

- TU2RAI01 Development of the IFMIF/EVEDA Accelerator – *A. Mosnier* (CEA)**

- TU2RAI02 Accelerator R&D for the European ADS Demonstrator – *J.-L. Biarrotte, F. Bouly, T. Junquera, A.C. Mueller (IPN) S. Barbanotti, P. Pierini (INFN/LASA) R. Gobin, M. Luong, D. Uriot (CEA) H. Klein, H. Podlech (IAP)***

Tuesday, May 5 11:00 – 12:00

Hyatt Regency Vancouver, Plaza Ballroom

**TU2PB — Parallel Oral Session**

*Beam Dynamics and EM Fields*

**Chair:** M. Berz, MSU (East Lansing, Michigan)

- TU2PBC01 Space-Charge Simulations of Non-Scaling FFAGs Using PTC – *D.T. Abell, G.I. Bell, A.V. Sobol (Tech-X) E. Forest (KEK) A.G. Ruggiero, D. Trbojevic (BNL)***

- TU2PBC02 Recent Improvements to CHEF, A Framework for Accelerator Computations – *J.-F. Ostiguy, L. Michelotti (Fermilab)***

- TU2PBC03 Theory and Applications of Lattice with Negative Momentum Compaction Factor – *Y. Senichev (FZJ)***

- TU2PBC04 Transport of Ultra-Short Electron Bunches in a Free-Electron Laser Driven by a Laser-Plasma Wakefield Accelerator – *M.P. Anania, R.C. Issac, D.A. Jaroszynski, A. J. W. Reitsma, S.M. Wiggins (USTRAT/SUPA) M.J. de Loos, S.B. van der Geer (Pulsar Physics)***

Tuesday, May 5 11:00 – 12:00  
Hyatt Regency Vancouver, Georgia Room

**TU2GR — Parallel Oral Session**

*Sources and Injectors*

**Chair:** C. Hernandez-Garcia, JLAB (Newport News, Virginia)

- TU2GRI01 Initial Beam Results from the Cornell High-Current ERL Injector Prototype – I.V. Bazarov (CLASSE)**
- TU2GRC02 Femtosecond Photocathode Electron Gun for Time-Resolved Electron Diffraction – J. Yang, K. Kan, T. Kondoh, K. Tanimura, Y. Yoshida (ISIR) J. Urakawa (KEK)**
- TU2GRC03 First Observation of an Electron Beam Emitted from a Diamond Amplified Photocathode – X. Chang, I. Ben-Zvi, A. Bur-rill, J. Kewisch, T. Rao, J. Smedley, Y.C. Wang, Q. Wu (BNL)**

Tuesday, May 5 14:00 – 16:00  
Hyatt Regency Vancouver, Regency A&B

**TU3RA — Parallel Oral Session**

*Radio Frequency Systems*

**Chair:** T.L. Grimm, Niowave, Inc. (Lansing, Michigan)

- TU3RAI01 **SRF Experience with the Cornell High-Current ERL Injector Prototype** – *M. Liepe* (Cornell University) S.A. Belomestnykh, E.P. Chojnacki, Z.A. Conway, V. Medjedzade, H. Padamsee, P. Quigley, J. Sears, V.D. Shemelin, V. Veshcherevich (CLASSE)
- TU3RAI02 **Recent Developments in Low and Medium Beta SRF Cavities** – *M.P. Kelly* (ANL)
- TU3RAI03 **Progress on Improving SC Cavity Performance for ILC** – *R.L. Geng* (JLAB)
- TU3RAI04 **Cryomodule Tests of Four Tesla-like Cavities in the STF Phase-1.0 for ILC** – *E. Kako, H. Hayano, S. Noguchi, N. Ohuchi, M. Satoh, T. Shishido, K. Watanabe, Y. Yamamoto* (KEK)

Tuesday, May 5 14:00 – 16:00

Hyatt Regency Vancouver, Plaza Ballroom

**TU3PB — Parallel Oral Session**

*Beam Dynamics and EM Fields*

**Chair:** E.N. Shaposhnikova, CERN (Geneva)

- TU3PBI01 **Beam Dynamics and Low Loss Operation of the J-PARC Main Ring** – *A.Y. Molodozhentsev* (J-PARC, KEK & JAEA)
- TU3PBI02 **Linac Code Benchmarking with High-Intensity Experiments at UNILAC** – *L. Groening, W. Barth, W.B. Bayer, G. Clemente, L.A. Dahl, P. Forck, P. Gerhard, I. Hofmann, M. Kaiser, M.T. Maier, S. Mickat, T. Milosic, H. Vormann, S. Yaramyshev* (GSI) *D.-O. Jeon* (ORNL) *R. Tiede* (IAP) *D. Uriot* (CEA)
- TU3PBC03 **Transverse Schottky Noise with Space Charge** – *O. Boine-Frankenheim, V. Kornilov, S. Paret* (GSI)
- TU3PBC04 **Circularly Inclined Solenoid Channel for 6D Ionization Cooling of Muons** – *Y. Alexahin* (Fermilab)
- TU3PBC05 **Simulation of Space Charge Effects in High Intensity Cyclotrons Using OPAL-CYCL** – *J.J. Yang, Y.J. Bi, Y. Lin* (TUB) *A. Adelmann* (PSI) *S. An, S.M. Wei, J.J. Yang, T.J. Zhang* (CIAE)
- TU3PBC06 **Recent Developments at the NSCL Small Isochronous Ring** – *Y. Li, F. Marti, T.P. Wangler* (NSCL) *E. Pozdnyev* (BNL)

Tuesday, May 5 14:00 – 16:00  
Hyatt Regency Vancouver, Georgia Room

**TU3GR — Parallel Oral Session**

*Instrumentation*

**Chair:** I.S. Ko, PAL (Pohang, Kyungbuk)

- TU3GRI01 Longitudinal Diagnostics for Short Electron Beam Bunches – *H. Loos* (SLAC)**
- TU3GRI02 Recent Developments in Optical Transition Radiation Beam Diagnostics – *R.B. Fiorito* (UMD)**
- TU3GRI03 NSLS-II Beam Diagnostics Overview – *O. Singh, R. Alforque, B. Bacha, A. Blednykh, P. Cameron, W.X. Cheng, L.R. Dalesio, A.J. Della Penna, L. Doom, G. Ganetis, R. Heese, H.-C. Hseuh, E.D. Johnson, B.N. Kosciuk, S.L. Kramer, S. Krinsky, S. Ozaki, I. Pinayev, V. Ravindranath, J. Rose, T.V. Shaftan, S. Sharma, J. Skaritka, T. Tanabe, F.J. Willeke, L.-H. Yu* (BNL)**
- TU3GRC04 Bunch Length Detector Based on X-Ray Produced Photo-electrons – *P.N. Ostroumov, A. Barcikowski, S.A. Kondrashev* (ANL) *A. Delannoy* (GANIL)**
- TU3GRC05 Commissioning and Performance of the LCLS Cavity BPM System – *S.R. Smith, S. Hoobler, R.G. Johnson, T. Straumann, A. Young* (SLAC) *R.M. Lill, L.H. Morrison, W.E. Norum, N. Sereno, G.J. Waldschmidt, D.R. Walters* (ANL)**

## Tuesday, May 5

Tuesday, May 5 16:30 – 18:00

Hyatt Regency Vancouver, Regency A&B

### TU4RA — Parallel Oral Session

*Radio Frequency Systems*

**Chair:** M.V. Fazio, LANL (Los Alamos, New Mexico)

- TU4RAI01 **Solid State RF Amplifiers for Accelerator Applications** – *M. Di Giacomo (GANIL)*
- TU4RAI02 **Development of a 10 MW Sheet Beam Klystron for the ILC** – *D.W. Sprehn, A. Jensen, E.N. Jongewaard (SLAC)*
- TU4RAC03 **Modeling and Design of High-Power Inductive Output Tubes** – *E.L. Wright (Beam-Wave Research, Inc.) S.J. Cooke, B. Levush (NRL) J.F. DeFord, B. Held (STAR, Inc.) J.J. Petillo (SAIC)*
- TU4RAC04 **Proton Beam Acceleration with MA Loaded RF Systems in J-PARC RCS and MR Synchrotrons** – *M. Yoshii, K. Takata (KEK) E. Ezura, K. Hara, K. Hasegawa, M. Nomura, C. Ohmori, A. Schnase, T. Shimada, H. Suzuki, A. Takagi, F. Tamura, M. Toda, M. Yamamoto (KEK/JAEA) K. Horino (Nippon Advanced Technology Co. Ltd.)*

Tuesday, May 5 16:30 – 18:00

Hyatt Regency Vancouver, Plaza Ballroom

### TU4PB — Parallel Oral Session

*Beam Dynamics and EM Fields, Radio Frequency Systems*

**Chair:** G.H. Hoffstaetter, CLASSE (Ithaca)

- TU4PBI01 **Emittance Exchange Experimental Results** – *R.P. Fliller (Fermilab) T.W. Koeth (Rutgers University, The State University of New Jersey)*
- TU4PBI02 **Aberration Correction and Electron Optics for Microscopes and Streak Cameras** – *W. Wan (LBNL)*
- TU4PBC03 **Performance Comparison of the Large Grain Cavities Treated by EP and CP** – *Z.G. Zong, J. Gao (IHEP Beijing) K. Saito (KEK)*
- TU4PBC04 **Production and Testing Results of Superconducting Cavities for ISAC-II High Beta Section** – *V. Zvyagintsev, R.J. Dawson, K. Fong, A. Grassellino, P.R. Harmer, R.E. Laxdal, M. Marchetto, A.K. Mitra, T.C. Ries, B. Warach, Q. Zheng (TRIUMF) R. Edinger (PAVAC)*

Tuesday, May 5 16:30 – 18:00  
Hyatt Regency Vancouver, Georgia Room

**TU4GR — Parallel Oral Session**

*Accelerator Technology*

**Chair:** M. Futakawa, JAEA/J-PARC (Tokai-mura)

**TU4GRI01 Operational Experience with the LHC Collimation System –  
*R.W. Assmann (CERN)***

**TU4GRI02 Megawatt Class Spallation Target Development – *J.R. Haines (ORNL) M. Futakawa (JAEA/J-PARC) W. Wagner (Paul Scherrer Institute, Spallation Source Division, ASQ)***

**TU4GRI03 The MERIT High-Power Target Experiment at the CERN PS –  
*K.T. McDonald (PU)***

Wednesday, May 6 08:30 – 10:30  
Hyatt Regency Vancouver, Regency A&B

**WE1RA — Parallel Oral Session**

*Controls and Operations*

**Chair:** R. Keitel, TRIUMF (Vancouver)

- WE1RAI01 **New User Interface Capabilities for Control Systems** – *K.-U. Kasemir (ORNL)*
- WE1RAI02 **Securing Control Systems against Cyber Attacks** – *S. Lueders (CERN)*
- WE1RAI03 **Designing and Running for High Accelerator Availability** – *F.J. Willeke (BNL)*
- WE1RAC04 **Longevity of Accelerator Control Systems Middleware** – *K. Zagar (Cosylab)*
- WE1RAC05 **Automated Operation of the MLS Electron Storage Ring** – *T. Birke, B. Franksen, M.V. Hartrott, G. Wuestefeld (BESSY GmbH) M. Abo-Bakr, J. Feikes (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Elektronen-Speicherring BESSY II)*

Wednesday, May 6 08:30 – 10:30  
Hyatt Regency Vancouver, Plaza Ballroom

**WE1PB — Parallel Oral Session**

*Beam Dynamics and EM Fields*

**Chair:** F. Zimmermann, CERN (Geneva)

- WE1PBI01 **Detailed Electron-Cloud Modeling with CMAD** – *M.T.F. Pivi (SLAC)*
- WE1PBI02 **Interactions of Microwaves and Electron Clouds** – *F. Caspers (CERN)*
- WE1PBI03 **Cyclotron Resonances in Electron Cloud Dynamics** – *C.M. Celata, M.A. Furman, J.-L. Vay (LBNL) D.P. Grote (LLNL) J.S.T. Ng, M.T.F. Pivi, L. Wang (SLAC)*
- WE1PBC04 **The New RF Deflectors for the CTF3 Combiner Ring** – *D. Alesini, A. Ghigo, F. Marcellini (INFN/LNF) G. McMonagle (CERN)*
- WE1PBC05 **Development of an Ultra-High Repetition Rate S-Band RF Gun for the SPARX Project** – *L. Faillace, L. Palumbo (Rome University La Sapienza) P. Frigola (RadiaBeam) A. Fukasawa, B. D. O'Shea, J.B. Rosenzweig (UCLA) B. Spataro (INFN/LNF)*

Wednesday, May 6 08:30 – 10:30  
Hyatt Regency Vancouver, Georgia Room

**WE1GR — Parallel Oral Session**

*High Energy Hadron Accelerators, Accelerator Technology*  
**Chair:** D.J.S. Findlay, STFC/RAL/ISIS (Chilton, Didcot, Oxon)

- WE1GRI01 **Progress with MW-Class Operation of the SNS** – *J. Galambos* (ORNL)
- WE1GRI02 **Commissioning of Main Ring for J-PARC** – *H. Kobayashi* (KEK)
- WE1GRI03 **Design Optimization of PS2** – *M. Benedikt* (CERN)
- WE1GRC04 **The Potential of Fluidised Powder Target Technology in High Power Accelerator Facilities** – *C.J. Densham, O. Caretta* (STFC/RAL)
- WE1GRC05 **Crystal Collimation Studies at the Tevatron (T-980)** – *N.V. Mokhov, G. Annala, A. Apyan, R.A. Carrigan, A.I. Drozhdin, T.R. Johnson, A.M. Legan, R.E. Reilly, V.D. Shiltsev, D.A. Still, R. Tesarek, J.R. Zagel* (Fermilab) *R.W. Assmann, V.P. Previtali, S. Redaelli, W. Scandale* (CERN) *Y.A. Chesnokov, I.A. Yazynin* (IHEP Protvino) *V. Guidi* (INFN-Ferrara) *Yu.M. Ivanov* (PNPI) *S. Peggs* (BNL) *M. Prest* (Universita dell'Insubria & INFN Milano Bicocca) *S. Shiraishi* (Enrico Fermi Institute, University of Chicago)

## **Wednesday, May 6**

Wednesday, May 6 11:00 – 12:00  
Hyatt Regency Vancouver, Regency A&B

### **WE2RA — Parallel Oral Session**

*Magnets*

**Chair:** L. Rossi, CERN (Geneva)

- WE2RAI01 **The Superconducting Undulator for the ILC Positron Source**  
– *J. Rochford* (STFC/RAL/ASTeC)
- WE2RAI02 **Status of Cryogenic Permanent Magnet Undulator Development** – *T. Tanaka* (RIKEN/SPring-8)

Wednesday, May 6 11:00 – 12:00  
Hyatt Regency Vancouver, Plaza Ballroom

### **WE2PB — Parallel Oral Session**

*Beam Dynamics and EM Fields*

**Chair:** Y. Cai, SLAC (Menlo Park, California)

- WE2PBC01 **Local Chromaticity Measurement Using the Response Matrix Fit at APS** – *V. Sajaev* (ANL)
- WE2PBC02 **A New Mode for Operation with Insertion Devices at UVX** – *L. Liu, R.H.A. Farias, X.R. Resende, P.F. Tavares* (LNLS)
- WE2PBC03 **Investigation of Beam - RF Interactions in Twisted Waveguide Accelerating Structures Using Beam Tracking Codes** – *J.A. Holmes, Y.W. Kang, J.L. Wilson, Y. Zhang* (ORNL) *M.H. Awida* (University of Tennessee)
- WE2PBC04 **RF Coupler Kicks in the 3.9 GHz 3rd Harmonic Cavity for the XFEL** – *E. Gjonaj, W. Ackermann, T. Lau, T. Weiland* (TEMF, TU Darmstadt)

Wednesday, May 6 11:00 – 12:00  
Hyatt Regency Vancouver, Georgia Room

**WE2GR — Parallel Oral Session**

*Sources and Injectors*

**Chair:** G. Ciavola, INFN/LNS (Catania)

- WE2GRI01 **ECR Ion Sources: A Brief History and a Look into the Next Generation** – *T. Nakagawa (RIKEN Nishina Center)*
- WE2GRC02 **Doubling the SNS H<sup>+</sup> Beam Current with the Baseline LBNL Ion Source** – *B. Han, D.J. Newland (ORNL RAD) S.N. Murray, T.R. Pennisi, M. Santana, M.P. Stockli, R.F. Welton (ORNL)*
- WE2GRC03 **Acceleration of Charge Bred Radioactive Ions at TRIUMF** – *F. Ames, R.A. Baartman, P.G. Bricault, K. Jayamanna, M. McDonald, P. Schmor (TRIUMF) T. Lamy (LPSC)*

Wednesday, May 6 14:00 – 16:00  
Hyatt Regency Vancouver, Regency A&B

**WE3RA — Parallel Oral Session**

*Radio Frequency Systems*

**Chair:** J.R. Delayen, JLAB (Newport News, Virginia)

- WE3RAI01 **Progress in High Gradient Accelerator Structure Research for Future Linear Colliders – S.G. Tantawi (SLAC)**
- WE3RAC02 **High-Power Testing of X-Band CLIC Power Generating Structures – I. Syratchev (CERN)**
- WE3RAC03 **High-Power Test Results of a 10 MW, High Efficiency, L-Band Multiple Beam Klystron – T.W. Habermann, A. Balkcum, R. Begum, H.P. Bohlen, M. Cattelino, E. Cesca, L. Cox, E.L. Eisen, S. Forrest, D. Gajaria, T. Kimura, J.L. Ramirez-Aldana, A. Staprans, B. Stockwell, L. Zitelli (CPI)**
- WE3RAI04 **Applications of General-Purpose Reconfigurable LLRF Processing Architectures – L.R. Doolittle (LBNL)**
- WE3RAC05 **Modeling the LLRF Control of a Multi-Cavity RF Station for Project X – J. Branlard, B. Chase (Fermilab)**
- WE3RAC06 **Development of the Model of a Self-Excited Loop – G. Joshi (BARC) V. Agarwal, G. Kumar (Indian Institute of Technology Bombay) R.G. Pillay (TIFR)**

Wednesday, May 6 14:00 – 16:00  
Hyatt Regency Vancouver, Plaza Ballroom

**WE3PB — Parallel Oral Session**

*Beam Dynamics and EM Fields*

**Chair:** O.S. Brüning, CERN (Geneva)

- WE3PBI01 **Head-Tail Modes for Strong Space Charge – A.V. Burov (Fermilab)**
- WE3PBI02 **Study of Beam Dynamics during the Crossing of Resonances in the VEPP-4M Storage Ring – P.A. Piminov (BINP SB RAS)**
- WE3PBI03 **LHC Beam-Beam Compensation Studies at RHIC – W. Fischer, N.P. Abreu, R. Calaga, Y. Luo, C. Montag, G. Robert-Demolaize (BNL)**

- WE3PBC04 **Nonlinear Dynamics Study of Storage Rings with Super Periods – H. Hao, X.Q. Wang (USTC/NSRL) Y.K. Wu (FEL/Duke University)**
- WE3PBC05 **Advanced Simulation and Optimization Tools for Dynamic Aperture of Non-Scaling FFAGs and Related Accelerators including Modern User Interfaces – C. Johnstone (Fermilab) M. Berz, K. Makino (MSU) P. Snopok (St. Petersburg State University)**

Wednesday, May 6 14:00 – 16:00  
Hyatt Regency Vancouver, Georgia Room

**WE3GR — Parallel Oral Session**

*Instrumentation*

**Chair:** I. Ben-Zvi, BNL (Upton, Long Island, New York)

- WE3GRI01 **Stochastic Cooling in RHIC – J.M. Brennan, M. Blaskiewicz, F. Severino (BNL)**
- WE3GRI02 **State of the Art in High-Stability Timing, Phase Reference Distribution and Synchronization Systems – M. Ferianis (ELETTRA)**
- WE3GRI03 **Development of CW Laser Wire in Storage Ring and Pulsed Laser Wire – Y. Honda (KEK)**
- WE3GRC04 **3-Dimensional Beam Profile Monitor Based on Pulse Storage in an Optical Cavity for Multi-Bunch Electron Beams – K. Sakaue, M. Washio (RISE) S. Araki, M.K. Fukuda, Y. Higashi, Y. Honda, T. Taniguchi, N. Terunuma, J. Urakawa (KEK) N. Sasao (Kyoto University)**
- WE3GRC05 **Time-Dependent Phase-Space Mapping of Space-Charge-Dominated Particle Beams – D. Stratakis (BNL) R.B. Fiorito, I. Haber, R.A. Kishek, P.G. O'Shea, M. Reiser, J.C.T. Thangaraj (UMD) K. Tian (JLAB)**

Wednesday, May 6 16:30 – 18:00  
Hyatt Regency Vancouver, Regency A&B

**WE4RA — Parallel Oral Session**

*Accelerator Technology*

**Chair:** H.-C. Hseuh, BNL (Upton, New York)

- WE4RAI01 **Optimal Design and Operation of Helium Refrigeration Systems – V. Ganni (JLAB)**
- WE4RAI02 **The CERN LHC - World's Largest Vacuum Systems – J.M. Jimenez (CERN)**
- WE4RAC03 **Fifteen Years Operation Experiences of TLS Vacuum System – G.-Y. Hsiung, C.K. Chan, C.-C. Chang, C.L. Chen, S-N. Hsu, C.Y. Yang (NSRRC) J.-R. Chen (National Tsing Hua University)**
- WE4RAC04 **The Power Supply System for the SESAME Booster – S. Varnaseri (SESAME)**

Wednesday, May 6 16:30 – 18:00  
Hyatt Regency Vancouver, Plaza Ballroom

**WE4PB — Parallel Oral Session**

*Low and Medium Energy Accelerators and Rings*  
**Chair:** A. Noda, Kyoto ICR (Uji, Kyoto)

- WE4PBI01 **EMMA, the World's First Non-Scaling FFAG Accelerator – S.L. Smith (STFC/DL/ASTeC)**
- WE4PBC02 **SNS Ring Operational Experience and Power Ramp Up Status – M.A. Plum (ORNL)**
- WE4PBC03 **A High-Duty Factor Radio-Frequency Quadrupole Accelerator for ADS Study in China – H.F. Ouyang, S. Fu, K.Y. Gong, T. Huang, J. Li, J.M. Qiao, T.G. Xu, X.A. Xu, Y. Yao, H.S. Zhang, Z.H. Zhang, F.X. Zhao (IHEP Beijing) J.X. Fang, Z.Y. Guo (PKU/IHIP) X.L. Guan (CIAE)**
- WE4PBC04 **An Electron Linac Photo-Fission Driver for the Rare Isotope Program at TRIUMF – I.V. Bylinskii, F. Ames, R.A. Baartman, P.G. Bricault, S.R. Koscielniak, R.E. Laxdal, M. Marchetto, L. Merminga, A.K. Mitra, I. Sekachev, V.A. Verzilov (TRIUMF)**
- WE4PBC05 **The HITRAP Decelerator Linac at GSI – F. Herfurth, W. Barth, L.A. Dahl, P. Gerhard, M. Kaiser, H.J. Kluge, C. Kozhuharov, W. Quint, T. Stoehlker, G. Vorobjev (GSI) O.K. Kester (NSCL) J. Pfister, U. Ratzinger, A.C. Sauer, A. Schempp (IAP)**

Wednesday, May 6 16:30 – 18:00  
Hyatt Regency Vancouver, Georgia Room

**WE4GR — Parallel Oral Session**  
*Instrumentation, Controls and Operations*  
**Chair:** W. Blokland, ORNL (Oak Ridge, Tennessee)

- WE4GRC01 **MR Beam Diagnostics at the First Beam Commissioning of the J-PARC MR** – *T. Toyama, D.A. Arakawa, A. Arinaga, Y. Hashimoto, S. Hiramatsu, S. Igarashi, S. Lee, H. Matsumoto, J.-I. Odagiri, M. Tejima, M. Tobiayama (KEK) S.H. Hatakeyama (MELCO SC) N. Hayashi, K. Yamamoto (JAEA/J-PARC) K. Satou (J-PARC, KEK & JAEA)*
- WE4GRC02 **Measurement of Electron Cloud Development in the Fermilab Main Injector Using Microwave Transmission** – *N. Eddy, J.L. Crisp, I. Kourbanis, K. Seiya, R.M. Zwaska (Fermilab) S. De Santis (LBNL)*
- WE4GRC03 **First Results from the LHC Beam Instrumentation Systems** – *E. Bravin (CERN)*
- WE4GRC04 **The Alignment of the LHC** – *D.P. Missiaen, J.-P. Quesnel, R.J. Steinhagen (CERN)*
- WE4GRC05 **Machine Protection for the Experiments of the LHC** – *R. Appleby, D. Macina (CERN)*
- WE4GRC06 **ALS Top-Off Mode Beam Interlock System** – *K.M. Baptiste, M.O. Balagot, W. Barry, P.W. Casey, H.K. Chen, R.S. Mueller, D. Robin, C. Steier, J.M. Weber (LBNL)*

Thursday, May 7 08:30 – 10:30  
Hyatt Regency Vancouver, Georgia Room

**TH1GR — Parallel Oral Session**

*Low and Medium Energy Accelerators and Rings / Asian Focus*

**Chair:** S. Ozaki, BNL (Upton, Long Island, New York)

- TH1GRI01 **HIRFL-CSR Facility – J.W. Xia, Y. Liu, Y.J. Yuan (IMP)**
- TH1GRI02 **Status of the China Spallation Neutron Source Project – S. Fu, H. Chen, Y.W. Chen, Y.L. Chi, C.D. Deng, H. Dong, W. He, K.X. Huang, W. Kang, J. Li, H.F. Ouyang, H. Qu, C. Shi, H. Sun, J. Tang, S. Wang, J. Wei, T.G. Xu, Z.X. Xu, X. Yin, J. Zhang, Z.H. Zhang (IHEP Beijing)**
- TH1GRI03 **Particle Accelerators in Korea – W. Namkung (POSTECH)**
- TH1GRI04 **Overview of the Accelerator Programs at the Indian Laboratories – V.C. Sahni (RRCAT)**

Thursday, May 7 08:30 – 10:30  
Hyatt Regency Vancouver, Plaza Ballroom

**TH1PB — Special Forum**

*Applications of Accelerators / Special Topics*

**Chair:** A.M.M. Todd, AES (Princeton, New Jersey)

- TH1PBI01 **Applications of Accelerators to Environmental Protection at the Idaho Accelerator Center – D. Wells (IAC)**
- TH1PBI02 **Accelerators for Security Applications – A.V. Mishin (AS&)**
- TH1PBI03 **Management Concepts and Strategies for the Construction of the European XFEL – T.H. Hott (DESY)**
- TH1PBI04 **Techniques for Successful Project Management - Lessons from ORNL SNS – S.A. Herron (ORNL)**

Thursday, May 7 11:00 – 12:30  
Hyatt Regency Vancouver, Plaza Ballroom

**TH2PB — Louis Costrell Honorary Session**

**Chairs:** S.O. Schriber, SOS (Eagle, Idaho); S.D. Holmes, Fermilab (Batavia)

TH2PBC01 **Plasma Wakefield Accelerators Using Multiple Electron Bunches – *E. Kallos* (QMUL, USC)**

TH2PBC02 **Nonlinear Dynamics Studies in the Fermilab Tevatron Using an AC Dipole – *R. Miyamoto* (BNL) *A. Jansson, M.J. Syphers* (Fermilab) *S.E. Kopp* (The University of Texas at Austin)**

TH2PBI03 **2009 APS Robert R. Wilson Prize – *S. Ozaki* (BNL)**

Thursday, May 7 14:00 – 16:00  
Hyatt Regency Vancouver, Georgia A

**TH3GA — Parallel Oral Session**  
*Pulsed Power and High Intensity Beams*  
**Chair:** R.C. Davidson, PPPL (Princeton, New Jersey)

- TH3GAI01 **Electron Beam Dynamics in the Long-Pulse, High-Current DARHT-II Linear Induction Accelerator – C. Ekdahl, E.O. Abeyta, P. Aragon, R.D. Archuleta, G.V. Cook, D. Dalmas, K. Esquibel, R.J. Gallegos, R.W. Garnett, J.F. Harrison, E.B. Jacquez, J.B. Johnson, B.T. McCuistian, N. Montoya, S. Nath, K. Nielsen, D. Oro, L.J. Rowton, M. Sanchez, R.D. Scarpetti, M. Schauer, G.J. Seitz, H.V. Smith, R. Temple (LANL) R. Anaya, G.J. Caporaso, F.W. Chambers, Y.-J. Chen, S. Falabella, G. Guethlein, B.A. Raymond, R.A. Richardson, J.A. Watson, J.T. Weir (LLNL) H. Bender, W. Broste, C. Carlson, D. Frayer, D. Johnson, C.-Y. Tom, C.P. Trainham, J.T. Williams (NSTec) T.C. Genoni, T.P. Hughes, C.H. Thoma (Voss Scientific) B.A. Prichard, M.E. Schulze (SAIC)**
- TH3GAI02 **Status of the Dielectric Wall Accelerator – G.J. Caporaso, D.T. Blackfield, Y.-J. Chen, S. Falabella, G. Guethlein, J.R. Harris, S.A. Hawkins, L. Holmes, S.D. Nelson, A. Paul, B. R. Poole, M.A. Rhodes, R.A. Richardson, S. Sampayan, M. Sanders, S. Sullivan, L. Wang, J.A. Watson (LLNL) D.W. Pearson (TomoTherapy) J.T. Weir (CPAC)**
- TH3GAI03 **Designing Neutralized Drift Compression for Focusing of Intense Beam Pulses in a Background Plasma – I. Kaganovich, R.C. Davidson, M. Dorf, E. Startsev (PPPL) A.B. Sefkow (Sandia National Laboratories)**
- TH3GAI04 **Progress in Beam Focusing and Compression for Target Heating and Warm Dense Matter Experiments – P.A. Seidl (LBNL)**

Thursday, May 7 14:00 – 16:00  
Hyatt Regency Vancouver, Georgia B

**TH3GB — Parallel Oral Session**  
*Advanced Concepts*  
**Chair:** G. Geschonke, CERN (Geneva)

- TH3GBI01 **Two Beam Linear Colliders / Special Issues – R. Corsini (CERN)**
- TH3GBI02 **Longitudinal Shaping of Electron Bunches with Applications to the Plasma Wakefield Accelerator – R.J. England, M.J. Hogan (SLAC) J.B. Rosenzweig, G. Travish (UCLA)**

- TH3GBI03 **Generation of Trains of Subpicosecond Electron Bunches – V. Yakimenko (BNL)**
- TH3GBI04 **Positron Transport, Focusing and Acceleration Using Plasma Techniques – P. Muggli (USC)**

Thursday, May 7 14:00 – 16:00  
Hyatt Regency Vancouver, Plaza Ballroom

**TH3PB — Parallel Oral Session**

*Light Sources and FELs*

**Chair:** H. Hama, Tohoku University, School of Science (Sendai)

- TH3PBI01 **Commissioning Status of the LCLS X-Ray FEL – P. Emma (SLAC)**
- TH3PBI02 **Progress of the SCSS Test Accelerator for XFEL/SPring-8 – K. Togawa, T. Fukui, T. Hara, T. Hasegawa, A. Higashiya, N. Hosoda, T. Inagaki, S.I. Inoue, T. Ishikawa, H. Kitamura, M.K. Kitamura, H. Maesaka, M. Nagasano, T. Ohshima, Y. Otake, T. Sakurai, T. Shintake, K. Shirasawa, H. Tanaka, T. Tanaka, M. Yabashi (RIKEN/SPring-8) T. Asaka, H. Ohashi, S. Takahashi, S. Tanaka (JASRI/SPring-8)**
- TH3PBI03 **Progress at the Jefferson Lab FEL – C. Tennant (JLAB)**
- TH3PBC04 **FLASH Operation as an FEL User Facility – S. Schreiber, B. Faatz, J. Feldhaus, K. Honkavaara, R. Treusch (DESY)**
- TH3PBC05 **Demonstration of Efficient Electron-Radiation Interaction in a 7th Harmonic IFEL Experiment – S. Tochitsky, A. M. Cook, D.J. Haberberger, C. Joshi, P. Musumeci, J.B. Rosenzweig, C. Sung, O. Williams (UCLA)**

Thursday, May 7 16:30 – 18:00  
Hyatt Regency Vancouver, Georgia A

**TH4GA — Parallel Oral Session**

*Applications of Accelerators*

**Chair:** F. Meot, CEA (Gif-sur-Yvette)

- TH4GAI01 **Commissioning of Hadrontherapy Synchrotrons: HIT and CNAO – Th. Haberer (HIT)**
- TH4GAI02 **Recent Progress on HIMAC for Carbon Therapy – K. Noda (NIRS)**
- TH4GAC03 **PAMELA Overview: Design Goals and Principles – K.J. Peach, J.H. Cobb, S.L. Sheehy, H. Witte, T. Yokoi (JAI) M. Aslaninejad, M.J. Easton, J. Pasternak (Imperial College of Science and Technology, Department of Physics) R.J. Barlow, H.L. Owen, S.C. Tygier (UMAN) C.D. Beard, P.A. McIntosh, S.L. Smith, S.I. Tzenov (STFC/DL/ASTeC) N. Bliss (STFC/DL) T.R. Edgecock, J.K. Pozimski, J. Rochford (STFC/RAL) R.J.L. Fenning, A. Khan (Brunel University) C. Johnstone (Fermilab) B. Jones, B. Vojnovic (Gray Institute for Radiation Oncology and Biology) D.J. Kelliher, S. Machida, C.T. Rogers (STFC/RAL/ASTeC) R. Seviour (Cockcroft Institute, Lancaster University)**
- TH4GAC04 **Neutron Source with Emittance Recovery Internal Target – Y. Mori (KURRI)**

Thursday, May 7 16:30 – 18:00  
Hyatt Regency Vancouver, Georgia B

**TH4GB — Parallel Oral Session**

*Advanced Concepts*

**Chair:** J.B. Rosenzweig, UCLA (Los Angeles, California)

- TH4GBC01 **Recent Results on Acceleration Mechanisms and Beam Optimization of Laser-Driven Proton Beams – S.F. Buffechoux, P. Antici, P. Audebert, J. Fuchs (LULI) M. Amin (ILPP) M. Borghesi, G. Sarri (Queen's University of Belfast) T. Burris-Mog, T. Cowan, K. Zeil (FZD) S. Fourmaux, J.C. Kieffer (INRS-EMT) T. Motonobu (ISIR)**

- TH4GBC02 **Stable, Monoenergetic 50-400 MeV Electron Beams with a Matched Laser Wakefield Accelerator – *S. Banerjee, N.D. Powers, V. Ramanathan, D.P. Umstadter (UNL)***
- TH4GBC03 **Injection of Electrons into a Laser Wakefield Accelerator Driven in a Capillary Discharge Waveguide Using an Embedded Gas Jet – *A.J. Gonsalves, E. Esarey, C.G.R. Geddes, W. Leemans, C. Lin, K. Nakamura, D. Panasenko, C.B. Schroeder, C. Toth (LBNL)***
- TH4GBC04 **Towards a Compact XUV Free-Electron Laser: Characterising the Improving Beam Quality of Electron Beams Generated in a Laser Wakefield Accelerator – *S.M. Wiggins, M.P. Anania, E. Brunetti, S. Cipiccia, M.R. Islam, R.C. Issac, D.A. Jaroszynski, R.P. Shanks, G. Vieux, G.H. Welsh (USTRAT/SUPA) W.A. Gillespie (University of Dundee) A. MacLeod (UAD)***
- TH4GBC05 **Boosted Frame PIC Simulations of LWFA: Towards the Energy Frontier – *S.F. Martins, S. Fonseca, L.O. Silva (Instituto Superior Tecnico) W. Lu, W.B. Mori (UCLA)***
- TH4GBC06 **X-Band Photonic Bandgap (PBG) Breakdown Structure Experiment – *R.A. Marsh, M.A. Shapiro, R.J. Temkin (MIT/PSFC) V.A. Dolgashev, S.G. Tantawi (SLAC)***

Thursday, May 7 16:30 – 18:00  
Hyatt Regency Vancouver, Plaza Ballroom

**TH4PB — Parallel Oral Session**

*Light Sources and FELs*

**Chair:** V. Litvinenko, BNL (Upton, Long Island, New York)

- TH4PBC01 **LNLS-2: A New High Performance Synchrotron Radiation Source for Brazil – *P.F. Tavares, R.H.A. Farias, L. Liu, X.R. Resende (LNLS)***
- TH4PBC02 **Recent Developments at Diamond Light Source – *R.P. Walker (Diamond)***
- TH4PBC03 **Major Upgrade Activity of the PLS in PAL: PLS-II – *S.H. Nam (PAL)***
- TH4PBC04 **Study of Emittance Degradation of Sources in Presence of Transverse RF Deflectors in QBA Lattice of Perfect TPS Machine – *H. Ghasem, G.-H. Luo (NSRRC)***

- TH4PBC05 **Recent Results of the SPARC FEL Experiments – *M. Ferrario, D. Alesini, M. Bellaveglia, R. Boni, M. Boscolo, M. Castellano, E. Chiadroni, A. Clozza, L. Cultrera, G. Di Pirro, A. Drago, A. Esposito, L. Ficcadenti, D. Filippetto, V. Fusco, A. Gallo, G. Gatti, A. Ghigo, C. Marrelli, M. Migliorati, A. Mostacci, E. Pace, L. Palumbo, L. Pellegrino, R. Ricci, B. Spataro, F. Tazzoli, S. Tomassini, C. Vaccarezza, M. Vescovi, C. Vicario (INFN/LNF) G. Andonian, G. Marcus, J.B. Rosenzweig (UCLA) A. Bacci, I. Boscolo, F. Castelli, S. Cialdi, D. Giove, C. Maroli, V. Petrillo, A.R. Rossi, L. Serafini (Istituto Nazionale di Fisica Nucleare) L. Catani, A. Cianchi, B. Marchetti (INFN-Roma II) F. Ciocci, G. Dattoni, A. Dipace, A. Doria, G.P. Gallerano, L. Giannessi, E. Giovenale, G.L. Orlandi, S. Pagnutti, A. Petralia, M. Quattromini, C. Ronsivalle, E. Sabia, I.P. Spassovsky, V. Surrenti (ENEA C.R. Frascati) M. Mattioli, M. Serluca (INFN-Roma)***
- TH4PBC06 **Performance and Capabilities of Upgraded High Intensity Gamma-ray Source at Duke University – *Y.K. Wu, M.D. Busch, M. Emamian, J.F. Faircloth, S.M. Hartman, J. Li, S.F. Mikhailov, V. Popov, G. Swift, P.W. Wallace, P. Wang (FEL/Duke University) C.R. Howell (TUNL)***

Friday, May 8 08:30 – 10:30  
Hyatt Regency Vancouver, Regency A&B

**FR1RA — Parallel Oral Session**

*Lepton Accelerators*

**Chair:** K. Yokoya, KEK (Ibaraki)

**FR1RAI01 CLIC Project Overview – *R. Tomas* (CERN)**

**FR1RAI02 The Conversion and Operation of the Cornell Electron Storage Ring as a Test Accelerator (CesrTA) for Damping Rings Research and Development – *M.A. Palmer, J.P. Alexander, M.G. Billing, J.R. Calvey, S.S. Chapman, G.W. Codner, J.A. Crittenden, J. Dobbins, G. Dugan, M.J. Forster, R.E. Gallagher, S.W. Gray, S. Greenwald, D.L. Hartill, W.H. Hopkins, D.L. Kreinick, Y. Li, X. Liu, J.A. Livezey, V. Medjitzade, R. Meller, S.B. Peck, D.P. Peterson, M.C. Rendina, D.H. Rice, N.T. Rider, D. L. Rubin, D. Sagan, J.W. Sexton, J.P. Shanks, J.P. Sikora, E.N. Smith, K.W. Smolenski, C.R. Strohman, A.B. Temnykh, M. Tigner, S. Vishniakou, W.S. Whitney, T. Wilksen, H.A. Williams (CLASSE) J.M. Byrd, C.M. Celata, J.N. Corlett, S. De Santis, M.A. Furman, A. Jackson, R. Kraft, D.V. Munson, G. Penn, D.W. Plate, A.W. Rawlins, M. Venturini, M.S. Zisman (LBNL) J.W. Flanagan, P. Jain, K. Kanazawa, K. Ohmi, Y. Suetsugu (KEK) K.C. Harkay (ANL) Y. He, M.C. Ross, C.-Y. Tan, R.M. Zwaska (Fermilab) R. Holtzapple (CalPoly) J.K. Jones (STFC/DL/ASTeC) J. Kandaswamy (Cornell University, Department of Physics) D. Kharakh, M.T.F. Pivi, L. Wang (SLAC) A. Wolski (Cockcroft Institute)***

**FR1RAI03 ATF2 Commissioning – *A. Seryi, J.W. Amann, P. Bellomo, B. Lam, D.J. McCormick, S. Molloy, J. Nelson, J.M. Paterson, M.T.F. Pivi, T.O. Raubenheimer, C.M. Spencer, G.R. White, M. Woodley, Y.T. Yan, F. Zhou (SLAC) D. Angal-Kalinin (STFC/DL/ASTeC) R. Apsimon, A.S. Aryshev, G.A. Blair, B. Constance, V. Karataev, C. Perry, J. Resta-López, C. Swinson (JAI) S. Araki, H. Hayano, Y. Honda, K. Kubo, T. Kume, S. Kuroda, M. Masuzawa, T. Naito, T. Okugi, R. Sugahara, T. Tauchi, N. Terunuma, J. Urakawa, K. Yokoya (KEK) S. Bai, J. Gao (IHEP Beijing) P. Bambade, Y. Renier, C. Rimbault (LAL) B. Bolzon, N. Geffroy, A. Jeremie (IN2P3-LAPP) S.T. Boogert (Royal Holloway, University of London) P. Burrows (OXFORDphysics) G.B. Christian (ATOMKI) J.-P. Delahaye, R. Tomas, F. Zimmermann (CERN) E. Elsen (DESY) E. Gianfelice-Wendt, M.C. Ross, M. Wendt (Fermilab) A. Heo, E.-S. Kim, H.-S. Kim (Kyungpook National University) Y. Iwashita, T. Sugimoto (Kyoto ICR) Y. Kamiya (ICEPP) S. Komamiya, M. Orouku, T.S. Suehara, T. Yamanaka (University of Tokyo) A. Lyapin (UCL) B. Parker (BNL) T. Sanuki (Department of Physics, Graduate School of Science, Tohoku University) A. Scarfe (UMAN) T. Takahashi (Hiroshima University, Graduate School of Science) A. Wolski (Cockcroft Institute)***

## **Friday, May 8**

- FR1RAC04 **Achievements in CTF3 and Commissioning Status – S. Bettini, R. Corsini, A.E. Dabrowski, S. Doeberl, D. Manglunki, P.K. Skowronski, F. Tecker (CERN)**
- FR1RAC05 **Update on Optics Modeling for the ATF Damping Ring at KEK – K. Kubo, S. Kuroda, T. Okugi (KEK) K.G. Panagiotidis, A. Wolski (The University of Liverpool) M. Woodley (SLAC)**

Friday, May 8 08:30 – 10:30  
Hyatt Regency Vancouver, Plaza Ballroom

### **FR1PB — Parallel Oral Session**

*Circular Colliders*

**Chair:** S. Peggs, BNL (Upton, Long Island, New York)

- FR1PBI01 **RHIC Progress and Future – C. Montag (BNL)**
- FR1PBI02 **Electron-Ion Collider Initiatives – R. Milner (MIT)**
- FR1PBI03 **LHC Upgrade Scenarios – J.-P. Koutchouk, F. Zimmermann (CERN)**
- FR1PBC04 **Recent Tevatron Operational Experience – A. Valishev, G. Annala, D.S. Bollinger, B.M. Hanna, R.S. Moore, D.A. Still, C.-Y. Tan, X. Zhang (Fermilab)**
- FR1PBC05 **The Large Hadron-electron Collider (LHeC) at the LHC – F. Zimmermann, F. Bordry, H.-H. Braun, O.S. Brüning, H. Burkhardt, R. Garoby, E.B. Holzer, J.M. Jowett, T.P.R. Linnecar, K.H. Mess, J.A. Osborne, L. Rinolfi, D. Schulte, R. Tomas, J. Tuckmantel, A. de Roeck (CERN) H. Aksakal (N.U) S. Chatopadhyay, J.B. Dainton (Cockcroft Institute) A.K. Ciftci (Ankara University, Faculty of Sciences) A.L. Eide (EPFL) M. Klein (The University of Liverpool) S. Sultansoy (TOBB ETU) A. Vivoli (LAL) F.J. Willeke (BNL)**

Friday, May 8 08:30 – 10:30  
Hyatt Regency Vancouver, Georgia Room

**FR1GR — Parallel Oral Session**

*High Energy Hadron Accelerators*

**Chair:** T. Roser, BNL (Upton, Long Island, New York)

- FR1GRI01 **Coherent Electron Cooling – *V. Litvinenko* (BNL)**
- FR1GRI02 **Project X at Fermilab – *S.D. Holmes* (Fermilab)**
- FR1GRI03 **Advanced Design of the FAIR Storage Ring Complex – *F. Steck* (GSI)**
- FR1GRC04 **Polarized Proton Performance of AGS in Run-9 Operation –  
*H. Huang, L. Ahrens, M. Bai, K.A. Brown, C.J. Gardner, J.W. Glenn, F. Lin, A.U. Luccio, W.W. MacKay, T. Roser, S. Tepikian, N. Tsoupas, K. Yip, K. Zeno* (BNL)**
- FR1GRC05 **The LHC Injection Tests – *M. Lamont, R. Alemany-Fernandez, R. Bailey, P. Collier, B. Goddard, V. Kain, A. Macpherson, L. Ponce, S. Redaelli, W. Venturini Delsolario, J. Wenninger* (CERN)**

## **Friday, May 8**

Friday, May 8 11:00 – 12:00

Hyatt Regency Vancouver, Regency A&B

### **FR2RA — Parallel Oral Session**

*Pulsed Power and High Intensity Beams*

**Chair:** W. Zhang, BNL (Upton, Long Island, New York)

- FR2RAI01 **R&D for Linear Induction Accelerators in China – J. Deng** (*CAEP/IPF*)
- FR2RAC02 **Measurement and Analysis of SPS Kicker Magnet Heating and Outgassing with Different Bunch Spacing – M.J. Barnes, K. Cornelis, L. Ducimetiere, E. Mahner, G. Papotti, G. Rumolo, V. Senaj, E.N. Shaposhnikova (CERN)**
- FR2RAC03 **A Fast Kicker Using A Rectangular Dielectric Wakefield Accelerator Structure – J.L. Hirshfield (Omega-P, Inc.) T.C. Marshall (Columbia University) S.V. Shchelkunov (Yale University, Beam Physics Laboratory) G.V. Sotnikov (NSC/KIPT)**

Friday, May 8 11:00 – 12:00

Hyatt Regency Vancouver, Plaza Ballroom

### **FR2PB — Parallel Oral Session**

*Beam Dynamics and EM Fields*

**Chair:** A. Dragt, UMD (College Park, Maryland)

- FR2PBI01 **Advances in Impedance Theory – G.V. Stupakov (SLAC)**
- FR2PBI02 **Gravitational Instability of a Nonrotating Galaxy – A. Chao (SLAC)**

Friday, May 8 11:00 – 12:00

Hyatt Regency Vancouver, Georgia Room

### **FR2GR — Parallel Oral Session**

*Applications of Accelerators*

**Chair:** S. Boucher, RadiaBeam (Marina del Rey)

- FR2GRI01 **USPAS and Its Role in Educating the Next Generation of Accelerator Scientists and Engineers – W.A. Barletta (MIT)**
- FR2GRI02 **The SPIRAL 2 Superconducting Linac – R. Ferdinand (GANIL)**

Friday, May 8 14:00 – 16:45  
Hyatt Regency Vancouver, Regency Ballroom

**FR3RB — Closing Plenary Session**

*Light Sources and FELs, High Energy Hadron Accelerators,  
Lepton Accelerators*

**Chair:** P. Schmor, TRIUMF (Vancouver)

- FR3RBI01 **Single Particle Diffraction at FLASH – M.J. Bogan (SLAC) H. Chapman (DESY) J. Hajdu (Uppsala University, Biomedical Centre)**
- FR3RBI02 **Science and Techniques of Ultra-Fast Electron and Photon Sources – S. Karsch (MPQ, LMU)**
- FR3RBI03 **The New Generation of Neutron Sources – T.E. Mason (ORNL)**
- FR3RBI04 **The Neutrino Factory - The Final Frontier in Neutrino Physics? – A.D. Bross (Fermilab)**
- FR3RBI05 **Progress Toward the International Linear Collider – N.J. Walker (DESY)**

**MO6PF — Afternoon Poster Session**  
**Magnets**

- M06PFP001 Design of Permanent Magnet Dipoles for the LNLS2 Electron Storage Ring – *G. Tosin, R. Basilio, J.F. Citadini (LNLS)***
- M06PFP002 System Based on Homogeneous Dipolar Field Magnet and a Reference Search Coil for Calibration of Magnetic Field Sensors – *J.F. Citadini, M. Potye, G. Tosin (LNLS)***
- M06PFP003 Specifications and R&D Program on Magnet Alignment Tolerances for NSLS-II – *S.L. Kramer, A.K. Jain (BNL)***
- M06PFP004 Small Gap Magnets and Vacuum Chambers for eRHIC – *W. Meng, Y. Hao, A.K. Jain, V. Litvinenko, G.J. Mahler, J.E. Tuozzolo (BNL)***
- M06PFP005 Steering Magnet Design for a Limited Space – *M. Okamura, J.M. Fite, V. Lo Destro, D. Raparia (BNL)***
- M06PFP006 Design of the NSLS-II High Order Multipoles – *J.W. Jackson, J. Bengtsson, G. Danby, M. Rehak, J. Skaritka, C.J. Spatharo (BNL)***
- M06PFP007 Design and Measurement of the NSLS-II Quadrupoles – *M. Rehak, A.K. Jain, J. Skaritka, C.J. Spatharo (BNL)***
- M06PFP008 Design and Construction of NSLS-II Magnets – *J. Skaritka, J. Bengtsson, W. Guo, R.C. Gupta, J.W. Jackson, A.K. Jain, S.L. Kramer, S. Krinsky, Y. Li, B. Nash, S. Ozaki, M. Rehak, S. Sharma, C.J. Spatharo, T. Tanabe, F.J. Willeke (BNL)***
- M06PFP009 Design and Measurement of the NSLS-II Correctors – *G. Danby, J.W. Jackson, A.K. Jain, M. Rehak, O. Singh, J. Skaritka, C.J. Spatharo (BNL)***
- M06PFP010 Design and Measurement of the NSLS-II Sextupoles – *C.J. Spatharo, A.K. Jain, M. Rehak, J. Skaritka (BNL)***
- M06PFP011 Imperfection Investigation for the Main Magnet Construction for Compact Cyclotron – *T.J. Zhang, Y.L. Lu, C. Wang, S.M. Wei, J.J. Yang, H.J. Yao, J.Q. Zhong (CIAE)***
- M06PFP012 Correction Coil System for Compact High Intensity Cyclotron – *T.J. Zhang, C.J. Chu, G.F. Song, S.M. Wei, J.Q. Zhong (CIAE) J.J. Yang (TUB)***
- M06PFP013 Field Interference Studies Between Bump Magnets with Different Coil Structures – *J. Tang, Y. Chen (IHEP Beijing)***

- MO6PFP014 **ALBA Synchrotron Quadrupoles and Sextupoles Manufacturing and Measurements – S.M. Gurov, A.M. Batrakov, M.F. Blinov, A.E. Levichev, E.B. Levichev, P. Martyshkin, I.N. Okunev, V.V. Petrov, S.I. Ruvinsky, T.V. Rybitskaya, A.V. Semenov, A.V. Sukhanov, P. Vobly (BINP SB RAS) E. Boter, D. Einfeld, M. Pont (ALBA)**
- MO6PFP015 **Fabrication and Production Test Results of Multi-Element Corrector Magnets for the Fermilab Booster Synchrotron – G. Velev, J. DiMarco, C.C. Drennan, D.J. Harding, V.S. Kashikhin, S. Kotelnikov, J.R. Lackey, A.V. Makarov, A. Makulski, R. Nehring, D.F. Orris, W. Pellico, E. Prebys, P. Schlabach, D.G.C. Walbridge (Fermilab)**
- MO6PFP016 **Magnetic Field Calculations for the Magnets of the High-Energy Storage Ring (HESR) at FAIR – H. Soltner, U. Bechstedt, R. Tolle (FZJ) J.G. De Villiers (iThemba LABS)**
- MO6PFP017 **Magnetic Field Control in Synchrotrons – A. Peters, E. Feldmeier, R. Steiner (HIT) H. Eickhoff, T. Knapp, C.P. Welsch (GSI) C. Schömers (MPI-K)**
- MO6PFP018 **The Pulsed Magnet System for the Simultaneous Injection of KEK-PF and KEKB Ring – T. Mimashi, K. Furukawa, N. Iida, K. Kakihara, M. Kikuchi, T. Miyajima, S. Nagahashi, M. Sato, M. Tawada, A. Ueda (KEK) T. Kudo (MELCO SC) H. Mori (Nichicon (Kusatsu) Corporation)**
- MO6PFP019 **Development of Pulsed Bending Magnet for Simultaneous Top-Up Injection to KEKB and PF – M. Tawada, M. Kikuchi, T. Mimashi, A. Ueda (KEK)**
- MO6PFP020 **Design Study of Superconducting Final Focus Quadrupoles for the Super KEKB Interaction Region – M. Tawada, Y. Funakoshi, H. Koiso, N. Ohuchi, K. Oide, K. Tsuchiya (KEK)**
- MO6PFP021 **Field Measurement System for CYCHU-10 – J. Yang, L. Cao, T. Hu, D. Li, K.F. Liu, B. Qin, J. Xiong, Y.Q. Xiong, T. Yu (HUST) C.J. Chu (CIAE)**
- MO6PFP022 **Main Magnet and Central Region Design for a 10 MeV PET Cyclotron – B. Qin, M. Fan, D. Li, K.F. Liu, Y.Q. Xiong, J. Yang (HUST) C.J. Chu (CIAE)**
- MO6PFP023 **Development of a Feedback Control System for Resonant Power Supplies in J-PARC 3-GeV Synchrotron – Y. Watanabe (JAEA/J-PARC)**
- MO6PFP024 **Permanent Magnet Final Focus Doublet R&D for ILC at ATF2 – Y. Iwashita, T. Sugimoto (Kyoto ICR) M. Masuzawa, T. Tauchi, K. Yokoya (KEK)**
- MO6PFP025 **Effect of Errors of Manufacture on the Magnetic Field of Quadrupole Lenses – O.V. Ryezayev (NSC/KIPT)**

- M06PFP026 **Design Considerations for the TPS Pulsed Magnets System**  
– **C.-H. Chang, C.K. Chan, J.-R. Chen, C.-S. Fann, C.-S. Hwang, Y.-H. Liu, C.-S. Yang (NSRRC)**
- M06PFP027 **Study of Eddy Current Effect on a Laminated Iron Design of a Booster-Ring Sextupole Magnet** – **J.C. Huang, C.-S. Hwang (NSRRC)**
- M06PFP028 **Status of Accelerator Lattice Magnets Design of TPS Project**  
– **C.-S. Hwang, C.-H. Chang, H.-H. Chen, M.-H. Huang, J.C. Jan, C.Y. Kuo, F.-Y. Lin, C.-S. Yang (NSRRC)**
- M06PFP029 **Precise Rotating Coil System for Characterizing the TPS Magnets** – **J.C. Jan, C.-H. Chang, C.-S. Hwang, F.-Y. Lin (NSRRC)**
- M06PFP030 **Development of Combined Function Magnets for the Taiwan Photon Source** – **C.Y. Kuo, C.-S. Hwang (NSRRC)**
- M06PFP031 **3D Field Quality Studies of SNS Ring Extraction Lambertson Septum Magnet** – **J. G. Wang (ORNL)**
- M06PFP032 **Magnet System for PLS Upgrade Project** – **D.E. Kim, H.S. Han, H.-G. Lee, K.-H. Park, H.S. Suh, Y.G. Young-Gyu (PAL)**
- M06PFP033 **Magnet Design for Proton and Carbon Iron Synchrotron for Cancer Therapy** – **H.S. Suh, H.-S. Kang, Y.G. Young-Gyu (PAL)**
- M06PFP034 **Field Distribution of the 90 Degree Bending Magnets of the IFUSP Microtron** – **C. Jahnke, A.A. Malafronte, M.N. Martins, T.F. Silva, V.R. Vanin (USP/LAL)**
- M06PFP035 **Magnetic Measurements of the Booster Dipole Magnets for the ALBA Synchrotron** – **F. Forest (Sigmaphi)**
- M06PFP036 **The "SF" System of Sextupoles for the JLAB 10 KW Free Electron Laser Upgrade** – **G.H. Biallas, K.S. Baggett, D. Douglas (JLAB) A. Smirnov, D. Yu (DULY Research Inc.)**
- M06PFP037 **Fabrication and Measurement of 12 GeV Prototype Quadrupoles at Thomas Jefferson National Accelerator Facility** – **T. Hiatt (JLAB)**
- M06PFP038 **Magnetic and Structural Analysis of SESAME Storage Ring Magnets** – **H. Tarawneh, M.M. Shehab (SESAME)**
- M06PFP039 **Design and Manufacture of a Step-Like Nonlinear Magnet for Beam Distribution Transformation** – **G. Feng (USTC/NSRL)**
- M06PFP040 **The Design of Combined Quadrupole and Sextupole Magnet**  
– **X. Zhao, G. Feng, L. Wang, H. Xu (USTC/NSRL)**
- M06PFP041 **Double-Helix Magnets –Technology, Application and Analysis** – **R.B. Meinke, M. Ball, C. Goodzeit (Advanced Magnet Lab., Inc)**
- M06PFP042 **Bent Superconducting Dipole Magnets** – **R.B. Meinke, M. Ball, C. Goodzeit (Advanced Magnet Lab., Inc)**

- MO6PFP043 **Fabrication of a Prototype Fast Cycling Superferric Dipole Magnet – G. Sikler, W. Gaertner, A. Wessner (BNG) E.S. Fischer, E. Floch, D. Krämer, P. Schnizer (GSI)**
- MO6PFP044 **Superconducting Magnets for a Final Focus Upgrade of ATF2 – B. Parker, M. Anerella, J. Escallier, P. He, A.K. Jain, A. Marone (BNL) B. Bolzon, A. Jeremie (IN2P3-LAPP) C. Hauviller (CERN) A. Seryi (SLAC) T. Tauchi, K. Tsuchiya, J. Urakawa (KEK) D. Urner (OXFORDphysics)**
- MO6PFP045 **Magnetic Design Studies for the Final Focus Quadrupoles of the SuperB Large Crossing Angle Collision Scheme – E. Paoloni (University of Pisa and INFN) S. Bettoni (CERN) M.E. Biagini, P. Raimondi (INFN/LNF) M.K. Sullivan (SLAC)**
- MO6PFP046 **First Field Test of FiDeL, the Magnetic Field Description for the LHC – L. Bottura, L. Deniau, P. Hagen, N.J. Sammut, E. Todesco, R. Wolf (CERN)**
- MO6PFP047 **Upgrade of the Protection System for Superconducting Circuits in the LHC – R. Denz, K. Dahlerup-Petersen, L. Walckiers (CERN)**
- MO6PFP048 **Conceptual Design of the Corrector Magnet Package for the Phase I Upgrade of the LHC Low- $\beta$  Triplets – M. Karppinen, N. Elias (CERN) P. Loveridge, J. Rochford (STFC/RAL) I. Rodriguez, F. Toral (CIEMAT)**
- MO6PFP049 **A Method to Detect Faulty Splices in the Superconducting Magnet System of the LHC – M. Koratzinos, R. Bailey, B. Bellesia, N. Catalan-Lasheras, Z. Charifoulline, S.D. Claudet, K. Dahlerup-Petersen, R. Denz, C. Fernandez-Robles, M. Pojer, L. Ponce, R.I. Saban, R. Schmidt, A.P. Siemko, M. Solfaroli Camilloci, L.J. Tavian, H. Thiesen, A. Vergara-Fernández (CERN) M. Bednarek, E. Gornicki, P. Jurkiewicz, P.J. Kapusta (HNINP) R.H. Flora, J. Strait (Fermilab)**
- MO6PFP050 **Hysteresis Effects of MCBX Magnets on the LHC Operation in Collision – N.J. Sammut, C. Giloux, M. Lamont, W. Venturini Delsolaro, S.M. White (CERN)**
- MO6PFP051 **Earth Current Monitoring Circuit for Inductive Loads – V. Montabonnet, S. Pittet, Y. Thurel (CERN)**
- MO6PFP052 **Electrical Behaviour of the LHC Main Dipole Circuits during Quenches and Fast Energy Discharges – A.P. Siemko, N. Catalan-Lasheras, K. Dahlerup-Petersen, R. Denz, G. Kirby, S.L.N. Le Naour, M. Modena, R.I. Saban, R. Schmidt, H. Thiesen, A.P. Verweij, R. Wolf (CERN) R.H. Flora (Fermilab)**
- MO6PFP053 **Study of a Less Invasive LHC Early Separation Scheme – G. Sterbini, J.-P. Koutchouk (CERN)**

- M06PFP054 **Pre-Cycle Selection for the Superconducting Main Magnets of the Large Hadron Collider – A.P. Verweij, N.J. Sammut, W. Venturini Delsolario, R. Wolf (CERN)**
- M06PFP055 **AC Dipole Magnet for Mu2e Experiment – V.S. Kashikhin, D.J. Harding, V. Kashikhin, A.V. Makarov (Fermilab)**
- M06PFP056 **Electromagnetic SCRF Tuner – V.S. Kashikhin, G.W. Foster, Y.M. Pischalnikov (Fermilab)**
- M06PFP057 **120-mm Superconducting Quadrupole for Interaction Regions of Hadron Colliders – V. Kashikhin, I. Novitski, A.V. Zlobin (Fermilab)**
- M06PFP058 **Operating Margin of Large-Aperture Nb3Sn IR Quadrupoles with Respect to Radiation Heat Depositions – V. Kashikhin, N.V. Mokhov, A.V. Zlobin (Fermilab)**
- M06PFP059 **Four-Coil Superconducting Helical Solenoid Model for MANX – M.J. Lamm, N. Andreev, V. Kashikhin, V.S. Kashikhin, A.V. Makarov, K. Yonehara, M. Yu, A.V. Zlobin (Fermilab) R.P. Johnson, S.A. Kahn (Muons, Inc)**
- M06PFP060 **Studies of the High-Field Section for a Muon Helical Cooling Channel – M.L. Lopes, V.S. Kashikhin, A.V. Zlobin (Fermilab) R.P. Johnson, S.A. Kahn (Muons, Inc)**
- M06PFP061 **Solenoid Focusing Lenses for the R&D Proton Linac at Fermilab – M.A. Tartaglia, J. DiMarco, Y. Huang, D.F. Orris, T.M. Page, R. Rabehl, I. Terechkine, J. C. Tompkins (Fermilab)**
- M06PFP062 **Magnets for Muon 6D Helical Cooling Channels – K. Yonehara, V.S. Kashikhin, A.V. Zlobin (Fermilab) R.P. Johnson, S.A. Kahn, M. Turenne (Muons, Inc)**
- M06PFP063 **Modeling of the High Field Section of a Muon Helical Cooling Channel – A.V. Zlobin, E.Z. Barzi, V.S. Kashikhin, M.J. Lamm, M.L. Lopes, M. Yu (Fermilab) R.P. Johnson, S.A. Kahn (Muons, Inc)**
- M06PFP064 **Development of High-Field Superconducting Solenoids for Muon Beam Cooling – A.V. Zlobin, E.Z. Barzi, V. Kashikhin, M.J. Lamm, V. Lombardo, G. Norcia, D. Turrioni (Fermilab)**
- M06PFP065 **Fast Ramped Superferric Prototype Magnets of the FAIR Project: First Test Results and Design Update – E.S. Fischer, E. Floch, J. Macavei, A. Mierau, P. Schnizer, C. Schroeder, A. Stafiniak, F. Walter (GSI) G. Sikler (BNG)**
- M06PFP066 **Design and Construction of a 15 T, 120 mm Bore IR Quadrupole Magnet for LARP – S. Caspi, D.W. Cheng, D.R. Dietderich, H. Felice, P. Ferracin, R.R. Hafalia, R. Hannaford, G.L. Sabbi (BNL) G. Ambrosio, R. Bossert, V. Kashikhin, D. Pasholk, A.V. Zlobin (Fermilab) M. Anerella, A.K. Ghosh, J. Schmalzle, P. Wanderer (BNL)**

- M06PFP067 **Magnetic Field Measurements of HD2, a High Field Nb3Sn Dipole Magnet – X. Wang, S. Caspi, D.W. Cheng, H. Felice, P. Ferracin, R.R. Hafalia, J.M. Joseph, A.F. Lietzke, J. Lizarazo, A.D. McInturff, G.L. Sabbi (LBNL) K. Sasaki (KEK)**
- M06PFP068 **Design and Analysis of a Nb3Sn Superconducting Magnet for a 56 GHz ECR Ion Source – P. Ferracin, S. Caspi, D. Leitner, C.M. Lyneis, S. Prestemon, G.L. Sabbi, D.S. Todd, F. Trillaud (LBNL)**
- M06PFP069 **Progress on the MuCOOL and MICE Coupling Coils – M.A. Green, D. Li, S.P. Virostek, M.S. Zisman (LBNL) A.B. Chen, X.L. Guo, X.K. Liu, H. Pan, L. Wang, H. Wu, F.Y. Xu, S.X. Zheng (ICST) D.J. Summers (UMiss)**
- M06PFP070 **Progress on the Fabrication and Testing of the MICE Spectrometer Solenoids – S.P. Virostek, M.A. Green, D. Li, M.S. Zisman (LBNL)**
- M06PFP071 **HTS Development for 30-50 T Final Muon Cooling Solenoids – S.A. Kahn, R.P. Johnson, M. Turenne (Muons, Inc) F. Hunte, J. Schwartz (NHMFL)**
- M06PFP072 **Multi-Purpose Fiber Optic Sensors for HTS Magnets – M. Turenne, R.P. Johnson (Muons, Inc) J. Schwartz (NHMFL)**
- M06PFP073 **PAMELA Magnets - Design and Performance – H. Witte, J.H. Cobb, T. Yokoi (OXFORDphysics) K.J. Peach, S.L. Sheehy (JAI)**
- M06PFP074 **Stress Computation in the C400 Superconducting Coil Using the Opera-2d Stress Analysis Module – W. Beeckman (Sigmaphi) J. Simkin (Vector Fields Ltd.) M. Wilson (Oxford Instruments, Accelerator Technology Group)**
- M06PFP075 **A New Generation of an In-Vacuum, Cryogenic Elliptical-Polarization Undulator (Cryo-EPU) – D.J. Waterman, A. Deyhim, J.D. Kulesza (Advanced Design Consulting, Inc) K.I. Blomqvist (MAX-lab)**
- M06PFP076 **Spectral Performance of Circular Polarizing Quasi-Periodic Undulators for Soft X-Rays at the Advanced Photon Source – R.J. Dejes, M. S. Jaski (ANL) S. Sasaki (HSRC)**
- M06PFP077 **Magnetic Simulation of a Superconducting Undulator for the Advanced Photon Source – Y. Ivanyushenkov (ANL)**
- M06PFP078 **Status of R&D on a Superconducting Undulator for the APS – Y. Ivanyushenkov, T.W. Buffington, C. Doose, Q.B. Hasse, M. S. Jaski, S.H. Kim, R. Kustom, E.R. Moog, E. Trakhtenberg, I. Vasserman (ANL)**
- M06PFP079 **A Concept for a Quasi-Periodic Planar Superconducting Undulator – Y. Ivanyushenkov, E. Trakhtenberg (ANL) S. Sasaki (HSRC)**

## **Monday, May 4**

- M06PFP080 **Circular Polarizing Quasi-Periodic Undulator – M. S. Jaski, E.R. Moog (ANL) S. Sasaki (HSRC)**
- M06PFP081 **Magnetic Field Measurement System for Superconducting Helical Undulators – S.H. Kim, C. Doose, Y. Ivanyushenkov (ANL)**
- M06PFP082 **SC Quadrupole for Cryomodule for ERL/ILC – A.A. Mikhailichenko (Cornell University, Department of Physics)**
- M06PFP083 **SC Undulator with the Possibility to Change Its Strength and Polarization – A.A. Mikhailichenko (Cornell University, Department of Physics)**
- M06PFP084 **Undulator Magnet for Cornell Energy Recovery Linac – A.B. Temnykh (Cornell University, Department of Physics)**
- M06PFP085 **Simulation of NdFeB Permanent Magnets at Low Temperature – G. Lebec, J. Chavanne (ESRF)**
- M06PFP086 **Spectrum of the Low Energy Electrons Bombarding the Wall in the ANKA Storage Ring – D. Saez de Jauregui, S. Casalbuoni, A.W. Grau, M. Hagelstein, E.M. Mashkina (FZK) R. Cimino, M. Commissio (INFN/LNF) R. Weigel (Max-Planck Institute for Metal Research)**
- M06PFP087 **Troubleshooting Status for the ALS In Vacuum Insertion Device – A. Madur, S. Marks, S. Prestemon, D. Schlueter (BNL)**
- M06PFP088 **LCLS Undulator System Tuning and Magnetic Measurements – Z.R. Wolf, S.D. Anderson, V. Kaplounenko, Yu.I. Levashov, A.W. Weidemann (SLAC)**
- M06PFP089 **Test of the Superconducting Undulator Short Prototype for the ANKA Synchrotron Light Source – E.M. Mashkina (University Erlangen-Nurnberg, Institute of Condensed Matter Physics) C. Boffo, M. Borlein, W. Walter (BNG) S. Casalbuoni, A.W. Grau, M. Hagelstein, D. Saez de Jauregui (FZK) N. Vassiljev (University Erlangen-Nuernberg, Institute of Condensed Matter Physics)**
- M06PFP090 **Phase Shifter Prototype with Laminated Permalloy Yokes for a Polarization-Controlled Undulator – N. Nakamura, A. Ishii, I. Ito, H. Kudo, S. Shibuya, K. Shinoe, H. Takaki (ISSP/SRL) T. Bizen (JASRI/SPRING-8) H. Kitamura, T. Tanaka (RIKEN Spring-8 Harima)**

Monday, May 4 14:00 – 18:30  
Hyatt Regency Vancouver, Regency Foyer

**MO6RF — Afternoon Poster Session**  
*Accelerator Technology T14, Sources and Injectors*

- MO6RFP001 Enhancing RHIC Luminosity Capabilities with In-situ Beam Pipe Coating – A. Hershcovitch, M. Blaskiewicz, W. Fischer (BNL) H.J. Poole (PVI)**
- MO6RFP002 Status of NSLS-II Storage Ring Vacuum Systems – H.-C. Hseuh, L. Doom, M.J. Ferreira, C. Longo, V. Ravindranath, P. Settepani, S. Sharma, K. Wilson (BNL)**
- MO6RFP003 The Vacuum System of HIRFL – X.T. Yang, D.Z. Guo, C.Y. Hao, S.J. Hou, Z.J. Hu, Y.S. Jia, M.L. Lou, S.M. Lv, X.L. Ma, J. Meng, Z.S. Nie, Z.W. Niu, W.S. Yang, Z.M. You, J.H. Zhang, Y.G. Zhao (IMP)**
- MO6RFP004 The Status of the Vacuum System of ALBA Synchrotron – E. Al-Dmour, D. Einfeld, R. Martin (ALBA)**
- MO6RFP005 CesrTA Vacuum System Modifications – Y. Li (Cornell University, Department of Physics) X. Liu, V. Medjitzade, M.A. Palmer, D.H. Rice, D. L. Rubin (CLASSE) J.J. Savino (CHESS)**
- MO6RFP006 Neon Venting of Activated NEG Beam Pipes in the CERN LHC Long Straight Sections without Losing Vacuum Performance – G. Bregliozi (CERN)**
- MO6RFP007 Design and Vacuum Tests of the CLIC Quadrupole Vacuum Chambers – C. Garion, H. Kos (CERN)**
- MO6RFP008 Experimental Studies of Carbon Coatings as Possible Means of Suppressing Beam Induced Electron Multipacting in the CERN SPS – E.N. Shaposhnikova, G. Arduini, J. Axensalva, E. Benedetto, S. Calatroni, P. Chiggiato, K. Cornelis, P. Costa Pinto, B. Henrist, J.M. Jimenez, E. Mahner, G. Rumolo, M. Taborelli, C. Yin Vallgren (CERN)**
- MO6RFP009 The ATLAS Beam Vacuum System – R. Veness (CERN)**
- MO6RFP010 Installation and Commissioning of Vacuum Systems for the LHC Particle Detectors – R. Veness, S. Blanchard, P. Lepeule, D. Ramos, A. Rossi, G. Schneider (CERN)**
- MO6RFP011 Status of the ESRF Vacuum System from an Operational Point of View – R. Kersevan, M. Hahn, I. Parat, D. Schmied (ESRF)**
- MO6RFP012 Vacuum Behavior of Longer Insertion Device Straight Sections for the Upgrade Program of the ESRF Storage Ring – R. Kersevan, M. Hahn (ESRF)**

- M06RFP013 **Photodesorption Measurements on Thin-Film Coatings at the ESRF – R. Kersevan, G. Debut (ESRF) P. Chiggiato, P. Costa Pinto (CERN)**
- M06RFP014 **Thin Film Coating for the Upgrade of the Heavy Ion Synchrotron SIS18 at GSI – M.C. Bellachioma, H. Kollmus, A. Kraemer, J. Kural, H. Reich-Sprenger, St. Wilfert (GSI) M. Bender (LMU)**
- M06RFP015 **Gas Desorption from TiN-Coated Copper Beam Duct – K. Shibata, H. Hisamatsu, K. Kanazawa, M. Shirai, Y. Suetsugu (KEK)**
- M06RFP016 **Vacuum Status during the Beam Operation of RCS in J-PARC – J. Kamiya, Y. Hikichi, K. Kanazawa, K. Mio, N. Ogiwara, Y. Takiyama (JAEA/J-PARC)**
- M06RFP017 **Large Scale Ti Bellows – N. Ogiwara, J. Kamiya, M. Kinsho, K. Suganuma (JAEA/J-PARC) O. Koizumi (Osaka Rasenkan Kogyo Co.,LTD.)**
- M06RFP018 **TPS Vacuum System – G.-Y. Hsiung, C.K. Chan, C.-C. Chang, C.L. Chen, S-N. Hsu, H.P. Hsueh, A. Sheng, C.Y. Yang, R. Yb (NSRRC) J.-R. Chen (National Tsing Hua University)**
- M06RFP019 **TPS Front End Design in NSRRC – A. Sheng (NSRRC)**
- M06RFP020 **The Pressure Distribution of the TPS FE Vacuum System – C.Y. Yang, C.K. Chan, J.-R. Chen, G.-Y. Hsiung, C.K. Kuan, A. Sheng (NSRRC)**
- M06RFP021 **TRIUMF Cyclotron Vacuum System Upgrade and Operational Experience – I. Sekachev, I.V. Bylinskii, A. Koveshnikov, D. Yosifov (TRIUMF)**
- M06RFP022 **The Design and Test of Plug-In Cryopumps – G.F. Pan, Z.G. Li, J.C. Qin, J.S. Xing, S.P. Zhang, T.J. Zhang (CIAE) I. Sekachev (TRIUMF)**
- M06RFP023 **Experimental Study of Stainless Steel Vacuum Chamber with TiN Film Coating – Y. Wang (USTC/NSRL)**
- M06RFP024 **Experimental Study of Stainless Steel Pipes with TiZrV Film Coating – Y. Wang, B. Zhang (USTC/NSRL)**
- M06RFP025 **Construction of the BNL EBIS Preinjector – J.G. Alessi, D.S. Barton, E.N. Beebe, S. Bellavia, O. Gould, A. Kponou, R.F. Lambiase, E.T. Lessard, V. LoDestro, R. Lockey, M. Mapes, D.R. McCafferty, A. McNerney, M. Okamura, A. Pendzick, D. Phillips, A.I. Pikin, D. Raparia, J. Ritter, J. Scaduto, L. Snydstrup, M. Wilinski, A. Zaltsman (BNL) T. Kanesue (Kyushu University) U. Ratzinger, A. Schempp (IAP) J. Tamura (Department of Energy Sciences, Tokyo Institute of Technology)**

- MO6RFP026 **Metal Ion Beam Acceleration with DPIS – M. Okamura (BNL)**  
*T. Kanesue (Kyushu University, Department of Applied Quantum Physics and Nuclear Engineering) J. Tamura (Department of Energy Sciences, Tokyo Institute of Technology)*
- MO6RFP027 **Results of LEBT/MEBT Upgrade at BNL 200 MeV Linac – D. Raparia (BNL)**
- MO6RFP028 **Highly Charged Ion Beam Production at SECRAL Superconducting ECR Ion Source – H.W. Zhao (IMP)**
- MO6RFP029 **Injection Layout for PAMELA – M.J. Easton, M. Aslaninejad, J. Pasternak, J.K. Pozimski (Imperial College of Science and Technology, Department of Physics) K.J. Peach (JAI) T. Yokoi (OxfordPhysics)**
- MO6RFP030 **The MISHA Ion Source for Hadron Therapy Facilities – S. Gammino, L. Celona, G. Ciavola, F. Maimone, D. Mascali (INFN/LNS)**
- MO6RFP031 **A New Approach to the Modelling of the Plasma Dynamics in ECR Ion Sources – D. Mascali, L. Celona, G. Ciavola, S. Gammino, F. Maimone (INFN/LNS)**
- MO6RFP032 **Development of Very Small ECR H<sup>+</sup> Ion Source with Pulse Gas Valve – M. Ichikawa, H. Fujisawa, Y. Iwashita, T. Sugimoto, H. Tongu, M. Yamada (Kyoto ICR)**
- MO6RFP033 **Development of a Li<sup>+</sup> Alumino-Silicate Ion Source – P.K. Roy, A. Anders, W.G. Greenway, J.W. Kwan, S.M. Lidia, P.A. Seidl, W.L. Waldron (LBNL)**
- MO6RFP034 **The EBIT Charge State Booster for Exotic Beam Reacceleration at MSU – O.K. Kester, G. Bollen, S. Chouhan, M. J. Johnson, J. Ottarson, M. Portillo, S. Schwarz, C. Wilson (NSCL)**
- MO6RFP035 **Performance Investigation of the NSCL 18 GHz Superconducting ECR Ion Source SUSI – G. Machicoane, C. Benatti, D. Cole, M. Doleans, O.K. Kester, F. Marti, X. Wu, P.A. Zavodszky (NSCL)**
- MO6RFP036 **H<sup>-</sup> Ion Sources for High Intensity Proton Drivers – V.G. Dudnikov, G. Dudnikova, R.P. Johnson (Muons, Inc) M.P. Stockli, R.F. Welton (ORNL)**
- MO6RFP037 **The SNS External Antenna H<sup>-</sup> Ion Source – R.F. Welton, J.R. Carmichael, D.W. Crisp, R.H. Goulding, S.N. Murray, T.R. Pennisi, M. Santana, M.P. Stockli (ORNL) B. Han (ORNL RAD)**
- MO6RFP038 **The ORNL Helicon H<sup>-</sup> Ion Source – R.F. Welton, J.R. Carmichael, D.W. Crisp, S.C. Forrester, R.H. Goulding, S.N. Murray, D.O. Sparks, M.P. Stockli (ORNL) O.A. Tarvainen (LANL)**

## **Monday, May 4**

- M06RFP039 **Calculation of Charge-Changing Cross Sections of Ions or Atoms Colliding with Fast Ions Using the Classical Trajectory Method – *I. Kaganovich, R.C. Davidson (PPPL) H.E. Mebane (HCL) A. Shnidman (PU)***
- M06RFP040 **Initial Results from the Front End Test Stand High Performance H Ion Source at RAL – *D.C. Faircloth, M.H. Bates, S.R. Lawrie, A.P. Letchford, M. Perkins, M. Whitehead, P. Wise, T. Wood (STFC/RAL/ISIS) C. Gabor (STFC/RAL/ASTeC) D.A. Lee, P. Savage (Imperial College of Science and Technology, Department of Physics) J.K. Pozimski (STFC/RAL)***
- M06RFP041 **Mechanical Engineering for the Front End Test Stand – *P. Wise, M.H. Bates, D.C. Faircloth, S.R. Lawrie, A.P. Letchford, M. Perkins, M. Whitehead, T. Wood (STFC/RAL/ISIS) C. Gabor (STFC/RAL/ASTeC) J.K. Pozimski, P. Savage (Imperial College of Science and Technology, Department of Physics)***
- M06RFP042 **A Highly Flexible Low Energy Ion Injector at KACST – *M.O.A. El Ghazaly (KUK) M.H. Al-Malki, M.O.A. El Ghazaly (KACST) A.I. Papash (MPI-K) C.P. Welsch (Cockcroft Institute)***
- M06RFP043 **Design of an SRF Gun for Polarized Electron Beams – *H. Bluem, D. Holmes, T. Schultheiss (AES) I. Ben-Zvi, A. Burrill, J. Kewisch, D. Pate, T. Rao, R.J. Todd, E. Wang, Q. Wu (BNL)***
- M06RFP044 **An Optimization of a DC Injector with Merger for the Energy Recovery Linac Upgrade to the APS – *X.W. Dong, M. Borland, Y.-C. Chae (ANL)***
- M06RFP045 **Photocathode Studies for Ultra-Low Emittance Electron Sources – *K.C. Harkay, K. Nemeth, M. White (ANL) L.K. Spentzouris (Illinois Institute of Technology)***
- M06RFP046 **Optimized Design of an Ultra-Low Emittance Injector for Future X-Ray FEL Oscillator – *P.N. Ostroumov, K.-J. Kim, B. Mustapha (ANL) P. Piot (Northern Illinois University)***
- M06RFP047 **High Frequency Bunch Train Generation from an RF Photoinjector at the AWA – *J.G. Power (ANL) C.-J. Jing (Euclid TechLabs, LLC)***
- M06RFP048 **Simulation Study of a Normal-Conducting CW Photoinjector for ERL X-Ray Sources – *C.-x. Wang (ANL)***
- M06RFP049 **An Experiment to Test the Viability of a GaAs Cathode in a SRF Electron Gun – *J. Kewisch, I. Ben-Zvi, A. Burrill, D. Pate, T. Rao, R.J. Todd, E. Wang, Q. Wu (BNL) H. Bluem, D. Holmes, T. Schultheiss (AES)***
- M06RFP050 **Ion Bombardment in RF Photoguns – *E. Pozdeyev, A. Kayran, V. Litvinenko (BNL)***

- MO6RFP051 **Ultra-Short High-Brightness Electron Beam Characterization at the NSLS SDL – X.J. Wang, Y. Hidaka, J.B. Murphy, B. Podobedov, H.J. Qian, S. Seletskiy, Y. Shen, X. Yang (BNL) C.-X. Tang (TUB)**
- MO6RFP052 **Scheme for Polarized Positron Production by Polarized Electrons at ILC – A.A. Mikhailichenko (Cornell University, Department of Physics) E.G. Bessonov (LPI)**
- MO6RFP053 **A Continuous Wave, Normal Conducting, L-Band PWT Photoelectron Gun – D. Yu, Y. Luo (DULY Research Inc.) M. Poelker (JLAB)**
- MO6RFP054 **XPS Investigations on Cs<sub>2</sub>Te Photocathodes of FLASH and PITZ – S. Lederer, S. Schreiber (DESY) P.M. Michelato, L. Monaco, C. Pagani, D. Sertore (INFN/LASA) R. Ovsyannikov, M. Sperling, A. Vollmer (BESSY GmbH) F. Stephan (DESY Zeuthen)**
- MO6RFP055 **Investigations on the Increased Life Time of Photocathodes at FLASH and PITZ – S. Lederer, S. Schreiber (DESY) J.H. Han (Diamond) M. Hanel, F. Stephan (DESY Zeuthen) P.M. Michelato, L. Monaco, C. Pagani, D. Sertore (INFN/LASA)**
- MO6RFP056 **Cryogenic Test of the Nb-Pb SRF Photoinjector Cavities – J.S. Sekutowicz, A. Muhs (DESY) P. Kneisel (JLAB) R. Nietubyc (The Andrzej Soltan Institute for Nuclear Studies, Centre Swierk)**
- MO6RFP057 **Recent Electron Beam Measurements at PITZ with a New Photocathode Laser System – M. Krasilnikov (DESY Zeuthen)**
- MO6RFP058 **Design of an Ultrafast Relativistic Electron Diffraction System with a Photocathode RF Gun – J.H. Han (Diamond)**
- MO6RFP059 **Design of a Normal Conducting L-Band Photoinjector – J.H. Han (Diamond)**
- MO6RFP060 **Numerical Study of the Thermal Behavior of a Photocathode RF Gun – J.H. Han, H.C. Huang (Diamond)**
- MO6RFP061 **Positron Source Target Survivability Studies – S. Hesselbach, G.A. Moortgat-Pick (Durham University) I.R. Bailey (Cockcroft Institute) J.-L. Fernandez-Hernando (STFC/DL/ASTeC) S. Riemann, A. Schaelicke, A. Ushakov (DESY Zeuthen) L. Zang (The University of Liverpool)**
- MO6RFP062 **Microbunching Studies for SPARX Photoinjector – C. Ronsivalle (ENEA C.R. Frascati) M. Ferrario, C. Vaccarezza (INFN/LNF) M. Migliorati (Rome University La Sapienza) M. Venturini (LBNL)**
- MO6RFP063 **First Results from Commissioning of the PHIN Photoinjector for CTF3 – M. Petrarca, H.-H. Braun, N. Champault, E. Chevallay, R. Corsini, S. Doeberl, K. Elsener, V. Fedosseev, G. Geschonke, R. Losito, A. Masi, O. Mete, L. Rinolfi (CERN) G.**

*Bienvenu, M. Jore, B.M. Mercier, C. Prevost, R. Roux (LAL) M. Divall (STFC/RAL) C. Vicario (INFN/LNF)*

- M06RFP064 **Stacking Simulations for Compton Positron Sources of Future Linear Colliders** – *F. Zimmermann, Y. Papaphilippou, L. Rinolfi (CERN) F. Antoniou (National Technical University of Athens) R. Chehab (IN2P3 IPNL) M. Kuriki (HU/AdSM) T. Omori, J. Urakawa (KEK) A. Variola, A. Vivoli (LAL) V. Yakimenko (BNL)*
- M06RFP065 **Simulations of Mode Separated RF Photo Cathode Gun** – *A. Deshpande (GUAS/AS) S. Araki, M.K. Fukuda, N. Terunuma, J. Urakawa (KEK) K. Sakaue, M. Washio (RISE) N. Sasao (Kyoto University)*
- M06RFP066 **Operational Performance of Positron Production from Tungsten Single-Crystal Target at the KEKB Injector Linac** – *T. Suwada, K. Furukawa (KEK)*
- M06RFP067 **Beam Dynamics Simulation for the Compact ERL Injector** – *T. Miyajima, Y. Honda, Y. Kobayashi, T.M. Mitsuhashi, T. Muto, S. Sakanaka (KEK) R. Hajima (JAEA/ERL)*
- M06RFP068 **ERL Scheme for Compton Polarised Positron Sources** – *A. Variola, C. Bruni, O. Dadoun (LAL) R. Chehab (IN2P3 IPNL) M. Kuriki (HU/AdSM) T. Omori, J. Urakawa (KEK) L. Rinolfi, A. Vivoli, F. Zimmermann (CERN)*
- M06RFP069 **A Study of Life Time of GaAs Photocathode for High Brightness Electron Source** – *C. Shonaka, H. Higaki, K. Ito, K. Kaneta, D. Kubo, M. Kuriki, H. Okamoto (HU/AdSM) T. Konomi, T. Nakanishi, S. Okumi, M. Yamamoto (Nagoya University)*
- M06RFP070 **Optical Injector Based on Particle Acceleration by Stimulated Emission of Radiation in a Penning-Trap** – *L. Schächter (Technion)*
- M06RFP071 **Velocity Bunching Experiments at SPARC** – *M. Ferrario, D. Alesini, M. Bellaveglia, R. Boni, M. Boscolo, M. Castellano, E. Chiadroni, L. Cultrera, G. Di Pirro, L. Ficcadenti, D. Filippetto, V. Fusco, A. Gallo, G. Gatti, C. Marrelli, E. Pace, L. Palumbo, B. Spataro, C. Vaccarezza, C. Vicario (INFN/LNF) G. Andonian, G. Marcus, J.B. Rosenzweig (UCLA) A. Bacci, D. Giove, V. Petrillo, A.R. Rossi, L. Serafini (Istituto Nazionale di Fisica Nucleare) A. Cianchi, B. Marchetti (INFN-Roma II) L. Giannessi, G.L. Orlandi, M. Quattromini, C. Ronsivalle (ENEA C.R. Frascati) M. Migliorati, A. Mostacci (Rome University La Sapienza)*
- M06RFP072 **On-Line Diagnostic of Cs<sub>2</sub>Te Photocathodes during their Growth** – *L. Monaco, P.M. Michelato, C. Pagani, D. Sertore (INFN/LASA)*
- M06RFP073 **Status of the SPARC Photocathode Drive Laser** – *C. Vicario, D. Filippetto, G. Gatti, A. Ghigo (INFN/LNF) M. Petrarca (CERN)*

- MO6RFP074 **Design and Fabrication of a 500-kV Photocathode DC Gun for ERL Light Sources – *R. Hajima* (JAEA/FEL) *Y. Honda, T. Miyajima, T. Muto* (KEK) *H. Iijima, R. Nagai, N. Nishimori* (JAEA/ERL) *M. Kuriki* (HU/AdSM) *T. Nakanishi, S. Okumi, M. Yamamoto* (Nagoya University)**
- MO6RFP075 **Development of a 250-kV Photocathode Electron Gun at JAEA – *R. Nagai, R. Hajima, H. Iijima, N. Nishimori* (JAEA/ERL) *Y. Honda, T. Miyajima, T. Muto* (KEK)**
- MO6RFP076 **Optimization Studies for the Advanced Photoinjector Experiment (APEX) – *S.M. Lidia* (BNL)**
- MO6RFP077 **Status of the LBNL Normal Conductive CW VHF Photoinjector – *F. Sannibale, K.M. Baptiste, J.N. Corlett, S. Kwiatkowski, D. Li, J. Qiang, J.W. Staples, R.P. Wells, L. Yang, A. Zholents* (LBNL) *T.M. Huang* (Institute of High Energy Physics, CAS)**
- MO6RFP078 **Upgrades to the Injector Cathode and Supporting Structure of the DARHT Second Axis Accelerator – *R.R. Mitchell, B.A. Gardner, T. Ilg* (LANL) *M. Leitner* (LBNL) *B.A. Prichard* (SAIC)**
- MO6RFP079 **Improved DC Gun Insulator – *R. Sah, K.B. Beard, M.L. Neubauer* (Muons, Inc) *C. Hernandez-Garcia, G. Neil* (JLAB)**
- MO6RFP080 **Intense Stopping Muon Beams – *C.M. Ankenbrandt, R.J. Abrams, R.P. Johnson, C. Y. Yoshikawa* (Muons, Inc) *M.A.C. Cummings, D.V. Neuffer, M. Popovic, E. Prebys, K. Yonehara* (Fermilab) *G.M. Wang* (ODU)**
- MO6RFP081 **Status of the Photo-Injector Development at NSRRC – *A.P. Lee, J.H. Chen, C.S. Chou, J.-Y. Hwang, W.K. Lau, C.C. Liang* (NSRRC) *C.H. Chen, N.Y. Huang, W.K. Luo* (NTHU)**
- MO6RFP082 **Theory and Modeling of Electron Emission from Cesiated Semiconductor Surfaces – *K. L. Jensen, J.L. Shaw, J.E. Yater* (NRL) *D.W. Feldman, E.J. Montgomery, P.G. O'Shea, P.Z. Pan* (UMD) *N.A. Moody* (LANL) *J.J. Petillo* (SAIC)**
- MO6RFP083 **Fabrication and Recesiation of Alkali Antimonide Photocathodes – *E.J. Montgomery, D.W. Feldman, P.G. O'Shea, P.Z. Pan* (UMD) *K. L. Jensen* (NRL) *N.A. Moody* (LANL)**
- MO6RFP084 **Control of the Incident Light to the Photocathode RF Gun Using the Digital $\mu$ Mirror Device for Radiation Therapy – *T. Kondoh, K. Kan, H. Kashima, K. Norizawa, A. Ogata, S. Tagawa, J. Yang, Y. Yoshida* (ISIR)**
- MO6RFP085 **Study of Transverse Emittance Evolution in 3.5-Cell DC-SC Photo-Injector – *W. Xu, S.W. Quan, K. Zhao, J. Zhuang* (PKU/IHIP)**

- M06RFP086 **Design, Construction and Operation of the Dutch rf-Photoguns – S.B. van der Geer** (*Pulsar Physics*) G.J.H. Brus-  
saard, O.J. Luiten, W.P.E.M. Op 't Root, M.J. de Loos, W. van  
Dijk, W.J. van Hemmen, **S.B. van der Geer** (*TUE*) W. Knulst  
(*Delft University of Technology, Opto-electronic Section*)
- M06RFP087 **Thermionic Cathode Grid Assembly for RF Guns – V. Volkov**,  
E. Kenjebulatov, G.Y. Kurkin, V.M. Petrov, E. Rotov, N. Vinokurov  
(*BINP SB RAS*)
- M06RFP088 **Operating a Tungsten Dispenser Cathode in Photoemission  
Mode – S.M. Gierman**, P.R. Bolton, W.J. Corbett, G.R. Hays,  
R.E. Kirby, J.F. Schmerge, J.J. Sebek (*SLAC*)
- M06RFP089 **Recent Polarized Photocathode Developments for Future  
Linear Colliders at SLAC – F. Zhou**, A. Brachmann, T.V.M.  
Maruyama, J. Sheppard (*SLAC*)
- M06RFP090 **The TRIUMF/VECC Collaboration on a 10MeV/50kW Electron  
Injector – R.E. Laxdal**, F. Ames, R.A. Baartman, S.R. Kosciel-  
niak, M. Marchetto, L. Merminga, A.K. Mitra, I. Sekachev, V.A.  
Verzilov, F. Yan (*TRIUMF*) A. Bandyopadhyay, A. Chakrabarti, V.  
Naik (*DAE/VECC*)
- M06RFP091 **A Laser-Cooled Electron Source for Ultrafast Electron  
Diffraction – S.B. van der Geer**, B. Fleskens, O.J. Luiten, M.P.  
Reijnders, G. Taban, E.J.D. Vredenbregt (*TUE*) **S.B. van der  
Geer** (*Pulsar Physics*)
- M06RFP092 **Undulator-Based Positron Source for CLIC – L. Zang** (*The  
University of Liverpool*) I.R. Bailey, A. Wolski (*Cockcroft Institute*)
- M06RFP093 **High Power Photon Collimators for the ILC – L. Zang** (*The  
University of Liverpool*) I.R. Bailey, A. Wolski (*Cockcroft Institute*)
- M06RFP094 **Optimization of Applied Electric Field of Multi-Alkali Photo-  
cathode S-Band RF Gun to Reduce Dark Current and De-  
signing a New RF Gun – K. Miyoshi** (*The University of Tokyo,  
Nuclear Professional School*)
- M06RFP095 **The MeV Ultra-Fast Electron Diffraction Experiment at Ts-  
inghua University – R.K. Li**, H. Chen, C. Cheng, Q. Du,  
Du.Taibin. Du, Y.-C. Du, W.-H. Huang, Y. Lin, J. Shi, C.-X. Tang,  
L.X. Yan (*TUB*)
- M06RFP096 **Beam Slice Characterization at SPARC High Brightness Photo-  
injection – A. Cianchi** (*Universita di Roma II Tor Vergata*) M.  
Bellaveglia, E. Chiadroni, L. Cultrera, G. Di Pirro, M. Ferrario, D.  
Filippetto, G. Gatti, E. Pace, C. Vaccarezza, C. Vicario (*INFN/  
LNF*) L. Ficcadenti, A. Mostacci (*Rome University La Sapienza*)  
B. Marchetti (*INFN-Roma II*)
- M06RFP097 **Longitudinal Beam Dynamics of the Photoinjector Blowout  
Regime – J.T. Moody**, M.S. Gutierrez, P. Musumeci, C.M. Scoby  
(*UCLA*)

- MO6RFP098 **Breaking the 100 Femtosecond Frontier in Relativistic Electron Diffraction – *P. Musumeci, M.S. Gutierrez, J.T. Moody, C.M. Scoby (UCLA)***
- MO6RFP099 **A Single Bunch Electron Gun for the ANKA Injector – *A. Hofmann, M. Fitterer, M. Klein, A.-S. Muller, K.G. Sonnad (University of Karlsruhe) G. Blokesch (PPT) E. Huttel, N.J. Smale (FZK) C. Piel (ACCEL) R. Weigel (Max-Planck Institute for Metal Research) T. Weis (DELTA)***
- MO6RFP100 **Design of a Combined ITC-RF Gun with a Diode Gun for FEL – *Y.J. Pei (USTC/NSRL)***
- MO6RFP101 **Development of High Brightness Injector at NSRL – *S.C. Zhang (USTC/NSRL)***
- MO6RFP102 **Present Status of a Multi-Bunch Electron Beam Linac Based on Cs-Te Photo-Cathode RF-Gun at Waseda University – *T. Suzuki (RISE)***
- MO6RFP103 **The Effects of Field Curvature on Bunch Formation in RF Electron Guns – *M.M. Allen (Xavier University of Louisiana) J. Bisognano, R.A. Legg (UW-Madison/SRC)***

**TU5PF — Morning Poster Session**  
*Radio Frequency Systems T06, T07, T08*

- TU5PFP001 Modeling RF Breakdown Arcs – *J. Norem, Z. Insepov (ANL)***  
*A. Hassanein (Purdue University) D. Huang (IIT) S. Mahalingam, P. Stoltz, S.A. Veitzer (Tech-X)*
- TU5PFP002 Recent Results from Tests of Atomic Layer Deposition (ALD) for Superconducting RF – *J. Norem, J.W. Elam, M.J. Pellin (ANL) L. Cooley (Fermilab) A.V. Gurevich (NHMFL) Y. Ha, Th. Proslier, J. Zasadzinski (IIT) P. Kneisel, R.A. Rimmer (JLAB)***
- TU5PFP003 A New SLED Test Stand in the APS Injector Linac – *S.J. Pasky, T. Berenc, D.J. Bromberek, A.R. Cours, J.E. Hoyt, D.A. Meyer, A. Pietryla, N. Sereno, T.L. Smith, J.H. Vacca, W.D. Wright (ANL)***
- TU5PFP004 Effects of External Magnetic Fields on RF Cavity Operation – *D. Stratakis, J.S. Berg, R.C. Fernow, J.C. Gallardo, R. B. Palmer (BNL)***
- TU5PFP005 Transfer Matrix Method Used in RF Tuning on DTL for CSNS – *Z.R. Sun, S. Fu, J. Peng (IHEP Beijing)***
- TU5PFP006 Wakefield Damping for the CLIC Crab Cavity – *P. K. Ambattu, G. Burt, R.G. Carter, A.C. Dexter (Cockcroft Institute, Lancaster University) V.A. Dolgashev (SLAC) R.M. Jones, V.F. Khan (UMAN)***
- TU5PFP007 A Damped Detuned Structure for the Main Accelerating Structures of Compact Linear Collider – *V.F. Khan, R.M. Jones (UMAN)***
- TU5PFP008 RF Measurements on Variations of the 500 MHz ALBA Dampy Cavity – *M.L. Langlois, M. Cornelis, D. Einfeld, F. Perez (ALBA)***
- TU5PFP009 Ferroelectric Based High Power Components for L-Band Accelerator Applications – *A. Kanareykin (Euclid TechLabs, LLC) S. Kazakov (KEK) E. Nenasheva (Ceramics Ltd.) A. Tagantsev (EPFL) V.P. Yakovlev (Fermilab)***
- TU5PFP010 Multipactor in Dielectric Loaded Accelerating Structures – *P. Schoessow, C.-J. Jing, A. Kanareykin (Euclid TechLabs, LLC) W. Gai, J.G. Power (ANL) O.V. Sinitsyn (UMD)***
- TU5PFP011 A Novel Technique for Mitigating Multipactor by Means of Magnetic Surface Roughness – *F. Caspers, E. Montesinos (CERN) V.E. Boria (DCOM-iTEAM-UPV) W. Bruns (WBFB) L. Galan (UAM) B. Gimeno (UVEG) I. Montero (CSIC) D. Raboso (ESA-ESTEC) C. Vicente (aurorasat)***

- TU5PFP012 **Statistical Modeling of DC Spark** – *Y.I. Levinson, S. Calatroni, A. Descoeuilles, M. Taborelli, W. Wuensch (CERN)*
- TU5PFP013 **Quantitative Outgassing Studies in DC Electrical Breakdown** – *Y.I. Levinson, S. Calatroni, A. Descoeuilles, M. Taborelli, W. Wuensch (CERN)*
- TU5PFP014 **Novel Acceleration Structure Using Slot-Resonance Coupling** – *N. Barov, J.S. Kim, D.J. Newsham (Far-Tech, Inc.) R.H. Miller (SLAC)*
- TU5PFP015 **A Compact, Low-Voltage Multi-Beam Klystron for 1300 MHz Cryomodules** – *N. Barov, J.S. Kim, D.J. Newsham (Far-Tech, Inc.)*
- TU5PFP016 **Rapidly Tunable RF Cavity for FFAG Accelerators** – *D.J. Newsham, N. Barov, J.S. Kim (Far-Tech, Inc.)*
- TU5PFP017 **Dielectric Loaded RF Cavities** – *M. Popovic, A. Moretti (Fermilab) M.L. Neubauer (Muons, Inc)*
- TU5PFP018 **Compact, Tunable RF Cavities** – *M. Popovic, A. Moretti (Fermilab) M. Alsharo'a, R.P. Johnson, M.L. Neubauer (Muons, Inc)*
- TU5PFP019 **Phase and Frequency Locked Magnetrons for SRF Sources** – *M. Popovic, A. Moretti (Fermilab) M.L. Neubauer (Muons, Inc)*
- TU5PFP020 **Hydrogen-Filled RF Cavities for Muon Beam Cooling** – *K. Yonehara, M. Chung, M. Hu, A. Jansson, A. Moretti, M. Popovic, A.V. Tollestrup (Fermilab) M. Alsharo'a, R.P. Johnson (Muons, Inc) D. Rose (Voss Scientific)*
- TU5PFP021 **Traveling Wave RF System for Muon Colliders** – *K. Yonehara, A. Moretti, M. Popovic, G.V. Romanov (Fermilab) R.P. Johnson, M.L. Neubauer (Muons, Inc) L. Thorndahl (CERN)*
- TU5PFP022 **COSY as Ideal Test Facility for HESR RF and Stochastic Cooling Hardware** – *R. Stassen, F.J. Etzkorn, R. Maier, D. Pra-suhn, H. Stockhorst (FZJ)*
- TU5PFP023 **Bunch Compression for FAIR** – *P. Hülsmann (GSI)*
- TU5PFP024 **Design of an MA Based RF System for the Collector Ring at FAIR** – *U. Laier, P. Hülsmann, K.-P. Ningel, G. Schreiber (GSI)*
- TU5PFP025 **The New cw RFQ Prototype** – *U. Bartz, A. Bechtold, N. Mueller, A. Schempp (IAP)*
- TU5PFP026 **RF System for RACCAM FFAG** – *C. Ohmori (KEK) F. Meot (CEA) J. Pasternak (LPSC)*
- TU5PFP027 **Design of a New J-PARC RF Cavity for Muon Short Bunch** – *C. Ohmori, E. Ezura, K. Hara, A. Takagi, M. Toda, M. Yoshii (KEK) K. Hasegawa, M. Nomura, A. Schnase, T. Shimada, H. Suzuki, F. Tamura, M. Yamamoto (JAEA/J-PARC)*

- TU5PFP028 High-Gradient RF Breakdown Studies with Narrow Waveguide – K. Yokoyama, S. Fukuda, Y. Higashi, T. Higo, N. Kudoh, S. Matsumoto, Y. Watanabe (KEK)**
- TU5PFP029 Preliminary Design of RF Cavities for the Cyclotron CYCHU-10 – L. Cao, M. Fan, T. Hu, J. Huang, D. Li, W. Xiao (HUST)**
- TU5PFP030 Design and Test of 10kW RF Amplifier Based on Direct Digital Synthesizer – D. Li, L. Cao, T. Hu, J. Huang, B. Qin, J. Yang (HUST)**
- TU5PFP031 Computational Study of Multipactor Discharge – S. Ahmed, D.M. Kaplan (Illinois Institute of Technology) A. Moretti (Fermilab)**
- TU5PFP032 RF Studies at Fermilab MuCool Test Area – D. Huang, Y. Torun (IIT) A.D. Bross, A. Moretti, Z. Qian (Fermilab) D. Li, M.S. Zisman (LBNL) J. Norem (ANL) R.A. Rimmer (JLAB)**
- TU5PFP033 BNL 703 MHz SRF Cryomodule Demonstration – A. Burrill, I. Ben-Zvi (BNL)**
- TU5PFP034 LHC Crab Cavity Cryostat and Infrastructure – R. Calaga (BNL) O. Brunner, E. Ciapala, T.P.R. Linnecar, J. Tuckmantel, W. Weingarten (CERN) T.J. Peterson, N. Solyak, V.P. Yakovlev (Fermilab)**
- TU5PFP035 A Proof-of-Principle Experiment of the Ferroelectric Tuner for a 1.3 GHz Cavity – H. Hahn, E. M. Choi (BNL) J.L. Hirshfield (Yale University, Physics Department) S. Kazakov, S.V. Shchelkunov (Omega-P, Inc.)**
- TU5PFP036 Design of the Fundamental Mode Damper and the HOM Dampers for the 56 MHz SRF Cavity – H. Hahn, S. Bellavia, I. Ben-Zvi, E. M. Choi (BNL)**
- TU5PFP037 Ripple Structure in 56 MHz Quarter Wave Resonator for Multipacting Suppression – D. Naik, I. Ben-Zvi (BNL)**
- TU5PFP038 1.3 GHz Superconducting RF Accelerator Unit and the Horizontal Test Stand R&D – J. Gao, Y.L. Chi, J.P. Dai, J. Gu, M. Hou, S.P. Li, Z.Q. Li, W.M. Pan, J. Yu, J.Y. Zhai (IHEP Beijing) J.Z. Chen (HJL) L.Q. Liu (Technical Institute of Physics and Chemistry) W.P. Xie (OTIC) Q.Z. Xing (TUB) H. Yuan (BIAM) T.X. Zhao (TIPC)**
- TU5PFP039 HOM Simulations with HFSS Using the TESLA 9-Cell Cavity Model – R.H. Zeng (IHEP Beijing) M. Schuh (CERN)**
- TU5PFP040 Novel Geometries for the LHC Crab Cavity – B.D.S. Hall, G. Burt, R.G. Carter (Cockcroft Institute, Lancaster University) R. Calaga (BNL) P. Goudket, P.A. McIntosh (STFC/DL/ASTeC) R.A. Rimmer, H. Wang (JLAB)**

- TU5PFP041 **Tests Status of the SPIRAL 2 Low Beta Cryomodules – P.-E. Bernaudin, P. Bosland, J. Giraud, A. Perolat, C.G. Thomas-Madec (CEA) R. Ferdinand (GANIL)**
- TU5PFP042 **Electromagnetic and Mechanical Properties of the Cornell ERL Injector Cryomodule – Z.A. Conway, M. Liepe (CLASSE)**
- TU5PFP043 **Fast Piezoelectric Actuator Control of Microphonics in the CW Cornell ERL Injector Cryomodule – Z.A. Conway, M. Liepe (CLASSE)**
- TU5PFP044 **Defect Location in Superconducting Cavities Cooled with He-II Using Oscillating Superleak Transducers – Z.A. Conway, D.L. Hartill, H. Padamsee, E.N. Smith (CLASSE)**
- TU5PFP045 **Status of Niowave ILC Vendor Qualification Tests at Cornell – Z.A. Conway, E.P. Chojnacki, D.L. Hartill, M. Liepe, H. Padamsee, J. Sears (CLASSE) M.S. Champion, G. Wu (Fermilab)**
- TU5PFP046 **ILC Nine-Cell Testing Program at Cornell University – Z.A. Conway, E.P. Chojnacki, D.L. Hartill, M. Liepe, H. Padamsee, J. Sears (CLASSE)**
- TU5PFP047 **Multi-Cell Reentrant Cavity Development and Testing At Cornell – Z.A. Conway, E.P. Chojnacki, D.L. Hartill, M. Liepe, D. Meidlinger, H. Padamsee, J. Sears (CLASSE) J. Rathke (AES)**
- TU5PFP048 **Robustness of the Superconducting Multicell Cavity Design for the Cornell Energy Recovery Linac – M. Liepe (Cornell University) G.Q. Stedman, N.R.A. Valles (CLASSE)**
- TU5PFP049 **Vertical Test Results for Vertically Electropolished 1.3GHz 5-Cell Superconducting Cavities – D. Meidlinger, E.P. Chojnacki, J.J. Kaufman, H. Padamsee, A.J. Windsor (CLASSE)**
- TU5PFP050 **A Procedure for Electropolishing Vertically Oriented Muticell Niobium Radiofrequency Cavities – A.C. Crawford (JLAB) H. Padamsee (CLASSE)**
- TU5PFP051 **Superconducting Multicell Cavity Design for the Energy Recovery Linac at Cornell – V.D. Shemelin, M. Liepe (CLASSE)**
- TU5PFP052 **Exploring the Maximum Superheating Magnetic Fields of Niobium – N.R.A. Valles, Z.A. Conway, M. Liepe (CLASSE)**
- TU5PFP053 **Cryogenic Test of a Coaxial Coupling Scheme for Fundamental and Higher Order Modes in Superconducting Cavities – J.S. Sekutowicz (DESY) P. Kneisel (JLAB)**
- TU5PFP054 **Development of Large Grain Superconducting Resonators for the European XFEL – W. Singer, J. Iversen, G. Kreps, L. Lilje, A. Matheisen, X. Singer, H. Weise (DESY) M. Pekeler, J.Sch. Schwellenbach (ACCEL) F. Schoelz (W.C. Heraeus GmbH COPY, Materials Technology Dept.) B. Spaniol, E. Stiedl (W.C. Heraeus GmbH, Materials Technology Dept.)**

## Tuesday, May 5

- TU5PFP055 Hydroforming of Multi-Cell Niobium and NbCu-Clad Cavities** – *X. Singer, I. Jelezov, A. Matheisen, W. Singer (DESY) G. Ciovati, P. Kneisel, M. Morrone (JLAB)*
- TU5PFP056 Control System Design for Automatic Cavity Tuning Machines** – *R.H. Carcagno, T.N. Khabiboulline, S. Kotelnikov, A. Makulski, R. Nehring, J.M. Nogiec (Fermilab) A. Goessel, G. Kreps, C. Mueller, J.H. Thie (DESY)*
- TU5PFP057 Analyses of Defects in the Heat Affected Zone of Welded Niobium Coupons** – *L. Cooley, D. Burk, M.H. Foley, D.T. Hicks, R. Schuessler, C. Thompson, G. Wu (Fermilab)*
- TU5PFP058 Construction of a 3.9 GHz Superconducting RF Cavity Module at Fermilab** – *E.R. Harms, T.T. Arkan, H.T. Edwards, M.H. Foley, M. Ge, A. Hocker, T.N. Khabiboulline, M.W. McGee, D.V. Mitchell, D.R. Olis, A.M. Rowe, N. Solyak (Fermilab)*
- TU5PFP059 Vibrational Stability of SRF Accelerator Test Facility at Fermilab** – *M.W. McGee, J.T. Volk (Fermilab)*
- TU5PFP060 Development of 325 MHz Single Spoke Resonators and Helium Vessels at Fermilab for HINS** – *L. Ristori, G. Apollinari, I.G. Gonin, T.N. Khabiboulline, A. Mukherjee, J.P. Ozelis, V. Poloubotko, D.A. Sergatskov, R. L. Wagner, R.C. Webber (Fermilab) G. Lanfranco (ELETTRA)*
- TU5PFP061 Improved Input and HOM Couplers for a SC Acceleration Structure** – *V.P. Yakovlev, I.G. Gonin, A. Lunin, N. Solyak (Fermilab)*
- TU5PFP062 Excitation of Traveling Wave in a Superconducting Structure with Feedback** – *V.P. Yakovlev, A. Lunin, N. Solyak (Fermilab) P.V. Avrakov, A. Kanareykin (Euclid TechLabs, LLC) S. Kazakov (KEK)*
- TU5PFP063 Low-Beta Structure for High Energy Part of Project X** – *V.P. Yakovlev, I.G. Gonin, A. Lunin, N. Solyak (Fermilab) I.K. Drozdov, N. Perunov (MIPT)*
- TU5PFP064 SC Crab Cavity with Reduced Transverse Size for the LHC Upgrade** – *V.P. Yakovlev, I.G. Gonin, T.N. Khabiboulline, N. Solyak (Fermilab)*
- TU5PFP065 FZJ HIPPI SC Triple-Spoke Cavity** – *E.N. Zaplatin, R. Maier, M. Pap, R. Stassen, R. Tolle (FZJ) W. Behr, H. Glueckler, W. Guenther, J. Wolters (Forschungszentrum Juelich GmbH, Institut für Nuklearchemie (INC))*
- TU5PFP066 IFMIF Superconducting beta=0.094 Half-Wave Resonator Design** – *E.N. Zaplatin (FZJ) P. Bosland, P. Bredy, N. Grouas, P. Hardy, A. Mosnier, F. Orsini, J. Plouin (CEA)*
- TU5PFP067 Structural Analyses of MSU Quarter-Wave Resonators** – *E.N. Zaplatin (FZJ) C. Compton, W. Hartung, M. J. Johnson, F. Marti, J. Oliva, J. Popielarski, R.C. York (NSCL)*

- TU5PFP068 Development of Surface Analysis System for Superconducting RF Cavity – *S. Kato, H. Hayano, M. Nishiwaki, T. Saeki (KEK) T. Noguchi (KAKEN Inc.)***
- TU5PFP069 Transient Analysis of Dynamic Lorentz Force Deformation and Detuning – *Y. Morozumi (KEK)***
- TU5PFP070 Surface Study Using Niobium Sample Coupons for Super Conducting RF Cavity – *M. Nishiwaki, H. Hayano, S. Kato, T. Saeki, M. Sawabe. (KEK) P.V. Tyagi (GUAS/AS)***
- TU5PFP071 Development of 2-Cell SC Cavity System for ERL Injector Linac at KEK – *S. Noguchi, E. Kako, M. Satoh, T. Shishido, K. Watanabe, Y. Yamamoto (KEK)***
- TU5PFP072 R&D for the Sponge Cleaning of Superconducting RF Cavity – *T. Saeki, Y. Funahashi, H. Hayano, S. Kato, M. Nishiwaki, M. Sawabe., K. Ueno, K. Watanabe (KEK)***
- TU5PFP073 Recent Results of the Cavity Inspection for the Superconducting Cavities at KEK-STF – *K. Watanabe, H. Hayano, E. Kako, S. Noguchi, T. Shishido, Y. Yamamoto (KEK) Y. Iwashita (Kyoto ICR)***
- TU5PFP074 Recent Results of the Vertical Test for 1.3 GHz Superconducting 9-Cell Cavities at KEK-STF – *Y. Yamamoto, H. Hayano, E. Kako, S. Noguchi, M. Satoh, T. Shishido, K. Umemori, K. Watanabe (KEK) H. Sakai (ISSP/SRL) T.X. Zhao (TIPC)***
- TU5PFP075 Observation and Numerical Calculation of Lorentz-Detuning for the Cryo-Module Test of STF Baseline Cavities at KEK-STF – *Y. Yamamoto, H. Hayano, E. Kako, T. Matsumoto, S. Michizono, T. Miura, S. Noguchi, M. Satoh, T. Shishido, K. Watanabe (KEK) T.X. Zhao (TIPC)***
- TU5PFP076 A New Cavity Diagnostic System for the Vertical Test of 1.3 GHz Superconducting 9-Cell Cavities at KEK-STF – *Y. Yamamoto, H. Hayano, E. Kako, S. Noguchi, M. Satoh, T. Shishido, K. Umemori, K. Watanabe (KEK) H. Sakai (ISSP/SRL) T.X. Zhao (TIPC)***
- TU5PFP077 Improvements to RF Cavity Input Couplers at the Advanced Photon Source – *D. Horan, D.J. Bromberg, L.H. Morrison, G.J. Waldschmidt (ANL)***
- TU5PFP078 352-MHz Solid State RF Power System Development at the Advanced Photon Source – *D. Horan, B. Brajuskovic, J.T. Collins, L.H. Morrison, G.J. Waldschmidt (ANL)***
- TU5PFP079 A Status Report on the Advanced Photon Source 2-MW DC Resistive Load – *G. Trento, D. Horan, E. Swetin, G.J. Waldschmidt (ANL)***

- TU5PFP080 Design, Construction, System Integration, and Test Results of the 1 MW CW RF System for the E-Gun Cavity in the Energy Recovery Linac at Brookhaven National Laboratory – A. Zaltsman, R.F. Lambiase (BNL) D.L. Dickey, J. Sainz, P.F. Utay (Continental Electronics Corp.) E.L. Eisen, S. Lenci (CPI)**
- TU5PFP081 Modular High Power Solid State RF Amplifiers for Particle Accelerators – H. Piel, B. A. Aminov, A. Borisov, M. Getta, S. Kolesov, N. Pupeter (CRE)**
- TU5PFP082 Commissioning of the Modulator Test Facility at DESY – H. Leich, U. Gensch, M. Grimberg, L. Jachmann, W. Koehler, M. Penno, R.W. Wendorff (DESY Zeuthen) S. Choroba, H.-J. Eckoldt, T. Grevsmuehl (DESY)**
- TU5PFP083 Modular Multi-Purpose Amplifier – I. Roth, M.P.J. Gaudreau, M.K. Kempkes, J. Kinross-Wright (Diversified Technologies, Inc.)**
- TU5PFP084 Multi-MW K-Band 7th Harmonic Multiplier for High-Gradient Accelerator R&D – N. Solyak, V.P. Yakovlev (Fermilab) A. Didenko, J.L. Hirshfield (Omega-P, Inc.)**
- TU5PFP085 A High Power Dual Resonant Ring System for High Gradient Testing of 11.424 GHz Linear Accelerator Structures – J. Haimson, B.A. Ishii, B.L. Mecklenburg, G.A. Stowell (HRC)**
- TU5PFP086 Status of RF Sources in Super-Conducting RF Test Facility (STF) at KEK – S. Fukuda, M. Akemoto, H. Hayano, H. Honma, H. Katagiri, S. Kazakov, S. Matsumoto, T. Matsumoto, H. Matsushita, S. Michizono, T. Miura, H. Nakajima, K. Nakao, T. Shidara, T. Takenaka, Y. Yano, M. Yoshida (KEK)**
- TU5PFP087 Renewal of a Klystron Power Supply for the Photon Factory Storage Ring at KEK – T. Takahashi, M. Izawa, S. Sakanaka, K. Umemori (KEK)**
- TU5PFP088 Integrating a Traveling Wave Tube into an AECR Ion Source – M. Kireeff Covo, J.Y. Benitez, D. Leitner, C.M. Lyneis, A. Ratti (LBNL) J.L. Vujic (UCB)**
- TU5PFP089 Dissolved Gas-in-Oil Analysis to Assess the Health of the LANSCE High Voltage Systems – K.A. Young, G.O. Bolme, J.T.M. Lyles, D. Rees, A.M. Velasquez (LANL)**
- TU5PFP090 Solid State High Power RF System for Superconducting Cavities – A.A. Zavadtsev, S.V. Kutsaev, D.A. Zavadtsev (Nano) L.V. Kravchuk (RAS/INR)**
- TU5PFP091 Status of the SNS RF Systems – T.W. Hardek, M.T. Crawford, Y.W. Kang, M.P. McCarthy, M.F. Piller, A.V. Vassiotchenko (ORNL) M.E. Middendorf (ORNL RAD)**
- TU5PFP092 Status and Upgrade Plan of High Power RF System for the PLS Storage Ring – M.-H. Chun, M.H. Jung, I.S. Park, Y.U. Sohn, I.H. Yu (PAL)**

- TU5PFP093 **Low Beam Voltage, 10 MW, L-Band Cluster Klystron – V.E. Teryaev** (*BINP SB RAS*) J.L. Hirshfield (*Yale University, Physics Department*) S. Kazakov (*KEK*) V.P. Yakovlev (*Fermilab*)
- TU5PFP094 **High Power RF Testing of the EMMA RF System – C.D. Beard** (*STFC/DL/ASTeC*)
- TU5PFP095 **MICE RF System – A.J. Moss**, J.F. Orrett (*STFC/DL/ASTeC*)
- TU5PFP096 **Operational Experience of the Super-Conducting RF System on ALICE at Daresbury Laboratory – A.E. Wheelhouse, S.R. Buckley, P.A. McIntosh, A.J. Moss, J.F. Orrett** (*STFC/DL/ASTeC*)
- TU5PFP097 **Design Progress of the RF System for EMMA at Daresbury Laboratory – A.E. Wheelhouse, P.A. McIntosh, A.J. Moss, J.F. Orrett** (*STFC/DL/ASTeC*)
- TU5PFP098 **The Elettra Radiofrequency System Status and Developments – C. Pasotti, M. Bocciai, L. Bortolossi, A. Fabris, M. Ottobretti, M. Rinaldi** (*ELETTRA*)
- TU5PFP099 **Phase-Modulation SLED Mode on BTW Sections at Elettra – D. Wang, G. D'Auria, P. Delgiusto, A. Fabris, M.M. Milloch, A. Rohlev, C. Serpico** (*ELETTRA*)
- TU5PFP100 **High Power rf Test on the C-Band rf Components of 8 GeV Accelerator for XFEL/SPring-8 – T. Sakurai, T. Inagaki, C. Kondo, T. Shintake, K. Shirasawa** (*RIKEN/SPring-8*) S. Suzuki (*JASRI/SPring-8*)
- TU5PFP101 **A New Prototype Modulator for the European XFEL Project in Pulse Step Modulator Technology – J. Alex, M. Bader, M. Iten, D. Reimann, J. Troxler** (*Thomson Broadcast & Multimedia AG*) S. Choroba, H.-J. Eckoldt, T. Grevsmuehl (*DESY*) U. Gensch, M. Grimberg, L. Jachmann, W. Koehler, H. Leich, M. Penno, R.W. Wenndorff (*DESY Zeuthen*)
- TU5PFP102 **RF System for SESAME – A. Kaftoosian, D.S. Foudeh, A. Nadji** (*SESAME*)

**TU5RF — Morning Poster Session**  
*Light Sources and FELs A05, A06, A16*

- TU5RFP001 A Study of Lattice Structure and Insertion Devices at the Positron Ring of the TAC Project – K. Zengin, A.K. Ciftci, R. Ciftci (Ankara University, Faculty of Sciences)**
- TU5RFP002 Alternate Hybrid Mode Bunch Patterns for the Advanced Photon Source – L. Emery, K.C. Harkay, V. Sajaev (ANL)**
- TU5RFP003 Superconducting Multi-Cell Deflecting Cavity for Short-Pulse X-Ray Generation at the Advanced Photon Source – G.J. Waldschmidt, L.H. Morrison, A. Nassiri (ANL) R.A. Rimmer, K. Tian, H. Wang (JLAB)**
- TU5RFP004 Observation of Ion Induced Effects and their Impact on the Performance of the MLS Electron Storage Ring – J. Feikes, M.V. Hartrott, G. Wuestefeld (BESSY GmbH) A. Hoehl, R. Klein, R. Muller, G. Ulm (PTB)**
- TU5RFP005 Low Alpha Operation of the MLS Electron Storage Ring – G. Wuestefeld, J. Feikes, M.V. Hartrott (BESSY GmbH) A. Hoehl, R. Klein, R. Muller, G. Ulm (PTB)**
- TU5RFP006 Beam Transport and Diagnostics for the NSLS II Injection System – R.P. Fliller, R. Alforque, R. Heese, R. Meier, J. Rose, T.V. Shaftan, O. Singh, N. Tsoupas (BNL)**
- TU5RFP007 NSLS II Booster Acceptance Studies – R.P. Fliller, W. Guo, R. Heese, Y. Li, T.V. Shaftan (BNL)**
- TU5RFP008 New Approaches in Lattice Design and Optimization with Insertion Devices – W. Guo, J. Bengtsson, S.L. Kramer, S. Krinsky, Y. Li, B. Nash, T.V. Shaftan (BNL)**
- TU5RFP009 NSLS-II Pulsed Magnet Design and Tolerances – R. Heese, R.P. Fliller, M. Rehak, T.V. Shaftan (BNL)**
- TU5RFP010 Flexibility in the Design of the NSLS-II Lattice – S.L. Kramer, W. Guo (BNL)**
- TU5RFP011 Top-Off Safety Analysis for NSLS-II – Y. Li, W.R. Casey, R. Heese, H.-C. Hseuh, P.K. Job, S. Krinsky, B. Parker, T.V. Shaftan, S. Sharma (BNL)**
- TU5RFP012 Alternative Designs of the NSLS-II Injection Straight Section – T.V. Shaftan, R.P. Fliller, R. Heese, R. Meier, M. Rehak, F.J. Willeke (BNL) E. Weihreter (BESSY GmbH)**
- TU5RFP013 Dynamic Response and Filtering Effects of a Light Source Accelerator Ring Structure – N. Simos, M. Fallier (BNL)**

- TU5RFP014 **Numerical Treatment of Moving Loads Affecting the Stability of NSLS2 Light Source Accelerator – N. Simos, M. Fallier (BNL) H. Amick (Colin Gordon, Associates)**
- TU5RFP015 **Model of NSLS II Lattice Response to Random, Stationary Vibrations – N. Simos, F.J. Willeke (BNL)**
- TU5RFP016 **Achieving Extreme Stability at NSLS II Beamlines – N. Simos, Y.Q. Cai, D.S. Coburn, M. Fallier, Q. Shen (BNL)**
- TU5RFP017 **Coherent Synchrotron Radiation Production at the Canadian Light Source – L.O. Dallin, M.S. de Jong (CLS)**
- TU5RFP018 **Orbit Improvements at the Canadian Light Source – T. Summers, D. Chabot, L.O. Dallin (CLS)**
- TU5RFP019 **Design and Optimization of the BEPCII Synchrotron Radiation Mode – Q. Qin, L.M. Chen, D. Wang, J.Q. Wang, X.H. Wang, Y. Wei, X.M. Wen, J. Xing, G. Xu, C.H. Yu, C. Zhang, Y. Zhang (IHEP Beijing)**
- TU5RFP020 **Status of the ALBA Light Source – D. Einfeld (ALBA)**
- TU5RFP021 **How Best to Produce Hard Coherent Monochromatic X-Rays from an Electron Beam – R.M. Talman (CLASSE)**
- TU5RFP022 **A Proposed New Light Source Facility for the UK – R.P. Walker, R. Bartolini, C. Christou, J.H. Han, J. Kay, I.P.S. Martin, G. Rehm (Diamond) D. Angal-Kalinin, M.A. Bowler, J.A. Clarke, D.J. Dunning, B.D. Fell, A.R. Goulden, S.P. Jamison, K.B. Marinov, P.A. McIntosh, J.W. McKenzie, B.L. Millsyn, B.D. Muratori, S.M. Pattalwar, M.W. Poole, R.J. Smith, S.L. Smith, N. Thompson, P.H. Williams (STFC/DL/ASTeC) N. Bliss, G.P. Diakun, M.D. Roper (STFC/DL) G.J. Hirst (STFC/RAL) J.P. Marangos (Imperial College of Science and Technology, Department of Physics) B.W.J. McNeil (USTRAT/SUPA) H.L. Owen (UMAN)**
- TU5RFP023 **Future Plans for DELTA – S. Khan (DELTA)**
- TU5RFP024 **Radiation Dose Depending on the Operating Conditions of a Superconducting In-Vacuum Undulator at ANKA – I. Birkel, E. Huttel, A.-S. Muller (FZK)**
- TU5RFP025 **Full-Energy-Injector for ANKA – E. Huttel, I. Birkel, A.-S. Muller, N.J. Smale, K.G. Sonnad, P. Wesolowski (FZK)**
- TU5RFP026 **Electro-Optical Sampling of Coherent Terahertz Radiation Emitted by Short Bunches in the ANKA Storage Ring – A. Plech, S. Casalbuoni, E. Huttel, Y.-L. Mathis, A.-S. Muller, K.G. Sonnad (FZK) A. Bartels (CAP Konstanz) R. Weigel (Max-Planck Institute for Metal Research)**
- TU5RFP027 **Observations of Coherent THz Radiation from the ANKA and MLS Storage Rings with a Hot Electron Bolometer – A.-S. Muller, I. Birkel, E. Huttel, Y.-L. Mathis, N.J. Smale (FZK) E. Brueckermann (Ruhr-Universitat Bochum) T. Bueckle, M. Fitterer, S.**

*Hillenbrand, N. Hiller, A. Hofmann, M. Klein, S. Marsching, K.G. Sonnad (University of Karlsruhe) H.W. Huebers, A. Semenov (DLR) R. Muller (PTB) G. Wuestefeld (BESSY GmbH)*

- TU5RFP028 TBONE: Ultra-fast High-Power Coherent THz to Mid-IR Radiation Facility – A.-S. Muller, T. Baumbach, S. Casalbuoni, B. Gasharova, M. Hagelstein, E. Huttel, Y.-L. Mathis, D.A. Moss, A. Plech, R. Rossmanith (FZK) E. Bruendermann, M. Havenith (Ruhr-Universitat Bochum) S. Hillenbrand, K.G. Sonnad (University of Karlsruhe)**
- TU5RFP029 Detection of Particle Losses at the MLS Using Cherenkov Fibers – J. Bahrdt, J. Feikes, W. Frentrup, A. Gaupp, M.V. Hartrott, M. Scheer, G. Wuestefeld (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Elektronen-Speicherring BESSY II) R. Klein, G. Ulm (PTB)**
- TU5RFP030 Universal Mode Operation of the BESSY II UE112 APPLE Undulator – J. Bahrdt, W. Frentrup, A. Gaupp, M. Scheer (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH)**
- TU5RFP031 Recent Progress of the Operation at PF-Ring and PF-AR – Y. Kobayashi, T. Aoto, S. Asaoka, K. Ebihara, K. Haga, K. Harada, T. Honda, T. Ieiri, M. Izawa, T. Kageyama, T. Kasuga, M. Kikuchi, K. Kudo, H. Maezawa, K. Marutsuka, A. Mishina, T.M. Mitsuhashi, T. Miyajima, H. Miyauchi, S. Nagahashi, T.T. Nakamura, T. Nogami, T. Obina, K. Oide, M. Ono, T. Ozaki, C.O. Pak, H. Sakai, Y. Sakamoto, S. Sakanaka, H. Sasaki, Y. Sato, M. Shimada, T. Shioya, M. Tadano, T. Tahara, T. Takahashi, R. Takai, S. Takasaki, Y. Tanimoto, M. Tejima, K. Tsuchiya, T. Uchiyama, A. Ueda, K. Umemori, S. Yamamoto, Ma. Yoshida, S.I. Yoshimoto (KEK)**
- TU5RFP032 Top-Up Operation of the Photon Factory – T.M. Mitsuhashi, T. Aoto, S. Asaoka, A. Enomoto, K. Haga, K. Harada, T. Honda, K. Hurukawa, N. Iida, M. Ikeda, M. Isawa, K. Kakihara, T. Kasuga, M. Kikuchi, Y. Kobayashi, H. Maezawa, T. Mimashi, A. Mishina, T. Miyajima, H. Miyauchi, S. Nagahashi, T. Nogami, T. Obina, Y. Ogawa, Y. Ohnishi, S. Ohsawa, C.O. Pak, S. Sakanaka, H. Sasaki, M. Sato, Y. Sato, T. Shioya, A. Shirakawa, T. Sugimura, T. Suwada, M. Tadano, T. Tahara, T. Takahashi, R. Takai, Y. Tanimoto, M. Tawada, K. Tsuchiya, T. Uchiyama, A. Ueda, K. Umemori, S. Yamamoto, Y. Yano, K. Yokoyama, M. Yoshida (KEK)**
- TU5RFP033 Test of Hybrid Fill Mode at the Photon Factory Storage Ring – R. Takai, T. Honda, Y. Kobayashi, T.M. Mitsuhashi, M. Shimada, Y. Tanimoto (KEK)**
- TU5RFP034 Design Study of a Dedicated Beamline for THz Radiation Generation at the SPARC Linac – M. Boscolo, M. Castellano, E. Chiadroni, M. Ferrario (INFN/LNF) P. Calvani, S. Lupi, A.**

*Nucara (Universita di Roma I La Sapienza) B. Marchetti (INFN-Roma II) V. Petrillo (Universita' degli Studi di Milano) A.R. Rossi (Istituto Nazionale di Fisica Nucleare)*

- TU5RFP035 Development of Kicker Magnet for Generation of Short Pulse Synchrotron Radiation in the SPring-8 Storage Ring – C. Mitsuda, K. Fukami, A. Mochihashi, T. Ohshima, M. Oishi, J. Schimizu, Y. Shimosaki, M. Shoji, K. Soutome, K. Tamura, H. Yonehara (JASRI/SPring-8) K. Kobayashi, T. Nakanishi (SES)**
- TU5RFP036 Bunch Length in Low Alpha Operation at the SPring-8 Storage Ring – K. Tamura, M. Masaki, A. Mochihashi, T. Nakamura, J. Schimizu, Y. Shimosaki, K. Soutome, M. Takao (JASRI/SPring-8)**
- TU5RFP037 Ultra-Low Emittance Light Source Storage Ring with Four Long Straight Sections – K. Tsumaki (JASRI/SPring-8)**
- TU5RFP038 Performance Requirements and Metrics for Future X-Ray Sources – J.N. Corlett (LBNL) R.O. Hettel (SLAC)**
- TU5RFP039 Using Synchrobetatron Resonances to Generate a Crabbed Beam at the ALS – C.T. Hliang, D. Robin, F. Sannibale, W. Wan (LBNL)**
- TU5RFP040 Pseudo Single Bunch at the ALS: First Experiment Results – G.J. Portmann, P. Fischer, M.P. Hertlein (LBNL)**
- TU5RFP041 Progress on Diagnostics Upgrades for ALS Top-Off Mode – T. Scarvie, W. Barry, F. Sannibale (LBNL)**
- TU5RFP042 Commissioning and User Operation of the ALS in Top-Off Mode – C. Steier, K.M. Baptiste, W. Barry, R.J. Donahue, H. Nishimura, D. Robin, S.L. Rossi, F. Sannibale, T. Warwick (LBNL)**
- TU5RFP043 Design of a 250 MeV, X-Band Photoinjector Linac for a Precision Compton-Scattering Based Gamma-Ray Source – S.G. Anderson, F. Albert, C.P.J. Barty, D.J. Gibson, F.V. Hartemann, D.P. McNabb, M. J. Messerly, B. Rusnak, M. Shverdin, C. Siders (LLNL) S.G. Tantawi, A.E. Vlieks (SLAC)**
- TU5RFP044 An Optic with Small Vertical Beta Function for the CAMD Light Source – V.P. Suller, P. Jines, D.J. Launey, T.A. Miller, Y. Wang (LSU/CAMD) S. Wang (CAEP/IPF)**
- TU5RFP045 Skew Quadrupoles for the CAMD Light Source – V.P. Suller, A.J. Crappell, P. Jines, D.J. Launey, T.A. Miller, Y. Wang (LSU/CAMD)**
- TU5RFP046 Accelerator Design of the MIT Compact X-Ray Source Project – W. Graves, J. Brown, D.E. Moncton (MIT) J.R. De-layeren, G.A. Krafft (JLAB) T.L. Grimm (Niowave, Inc.) R.A. Legg (UW-Madison/SRC) J.W. Lewellen (NPS) P. Piot (Northern Illinois University)**

- TU5RFP047 Proposal for a Synchrotron Radiation Source for Romania – F. Scarlat, E.S. Badita, G. Georgescu, R. Medianu, E. Mitru, M. Oane, A.M. Scarisoreanu (INFLPR) V. Babin, E. Carstea, I. S. Dontu, S. Miclos, C. M. Radu, E. Ristici, M.I. Rusu, D. Savastru, M. Tautan (Mustata) (INOE 2000) A. Dafinei, M.R. Leonovici (Bucharest University, Faculty of Physics)**
- TU5RFP048 Design and Performance of Linac and Recirculation Optics for the X-Ray Free Electron Laser Oscillator – M. Borland (ANL)**
- TU5RFP049 Parameter Study of an X-Ray FEL Oscillator – R.R. Lindberg, K.-J. Kim (ANL)**
- TU5RFP050 Electron Beam Energy Stabilization Using a Neural Network Hybrid Controller at the Australian Synchrotron Linac – E. Meier (ASCo)**
- TU5RFP051 A Study of the Stability of FEL Resonators – S. Krishnagopal (BARC) T. Basak, S.A. Samant (CBS)**
- TU5RFP052 Experimental Characterization of a SASE FEL in the Exponential Gain and Saturation Regimes – X.J. Wang, Y. Hidaka, J.B. Murphy, B. Podobedov, H.J. Qian, S. Seletskiy, Y. Shen, X. Yang (BNL) B. Hafizi (Icarus Research, Inc.) J. Penano, P. Sprangle (NRL)**
- TU5RFP053 Efficiency and Spectrum Enhancement in a Tapered Free-Electron Laser Amplifier – X.J. Wang, D.A. Harder, J.B. Murphy, H.J. Qian, Y. Shen, X. Yang (BNL) H. Freund, W.H. Miner (SAIC)**
- TU5RFP054 PSI-XFEL Sensitivity to Beam Main Parameters and Undulator Focusing – V.G. Khachatryan, V. Sahakyan, A. Tarloyan, V.M. Tsakanov (CANDLE) T. Garvey, S. Reiche, A. Streun (PSI)**
- TU5RFP055 Design of an Intense Terahertz Source at CBS – T. Basak, S. Krishnagopal, S.A. Samant (CBS)**
- TU5RFP056 A High Power Terahertz Source Based on a Photoinjector – D. Yu, A. Smirnov (DULY Research Inc.)**
- TU5RFP057 Coordinating Civil Construction of the European XFEL – L. Hagge, S. Eucker, J. Kreutzkamp, A.S. Schwarz (DESY)**
- TU5RFP058 Inter-Disciplinary Collaborative 3D Design Processes for the European XFEL and the ILC – L. Hagge, N. Bergel, A. Herz, J. Kreutzkamp, S. Suehl, N. Welle (DESY)**
- TU5RFP059 FLASH Upgrade – S. Schreiber, B. Faatz, J. Feldhaus, K. Honkavaara, R. Treusch (DESY)**
- TU5RFP060 Impedance Budget Database for European XFEL – O. Zagorodnova, T. Limberg (DESY)**

- TU5RFP061 A Fast Switching Mirror Unit at FLASH – *M. Sachwitz, A. Donat, U. Gensch, R. Heller, L.V. Vu (DESY Zeuthen) U. Hahn, S. Karstensen, H. Schulte-Schrepping, K.I. Tiedtke (DESY)***
- TU5RFP062 Start to End Simulations of a 1 keV FEL Driven by a Superconducting Linac – *R. Bartolini, C. Christou, J.H. Han, I.P.S. Martin (Diamond)***
- TU5RFP063 Laser Heater Coherent Synchrotron Radiation: Numerical and Analytical Results – *G. Dattoli (ENEA C.R. Frascati) M. Migliorati (INFN/LNF) A. Schiavi (Rome University La Sapienza)***
- TU5RFP064 Towards A Self Sustained Free Electron Laser Device – *E. Sabia, G. Dattoli (ENEA C.R. Frascati) A. Dipace (ENEA Portici)***
- TU5RFP065 FEL Transverse Mode Shaping Using Intra-Cavity Apertures – *J. Li, Y.K. Wu (FEL/Duke University) S. Huang (PKU/IHIP)***
- TU5RFP066 Multibunch Injection Scheme for the Booster Synchrotron of the Duke FEL and HIGS Facility – *S.F. Mikhailov, J. Li, V. Popov, P.W. Wallace, P. Wang, Y.K. Wu (FEL/Duke University) O. Anchugov (BINP SB RAS)***
- TU5RFP067 Pass-by-Pass Multistage FEL Gain Measurement Technique for a Storage Ring FEL – *S.F. Mikhailov, J. Li, V. Popov, Y.K. Wu (FEL/Duke University)***
- TU5RFP068 Quasi-Monochromatic High Intensity Compton Gamma Source Powered by a High Finesse Fabry-Perot Optical Cavity – *Y.K. Wu, M.D. Busch, B. Jia, J. Li, S.F. Mikhailov, V. Popov, C. Sun (FEL/Duke University)***
- TU5RFP069 Experiments on Madey Theorem with Optical Klystron Free-Electron Laser – *S. Huang, J. Li, Y.K. Wu (FEL/Duke University) S. Huang (PKU/IHIP)***
- TU5RFP070 Accelerator Physics Research and Development Programs at Duke University – *Y.K. Wu (FEL/Duke University)***
- TU5RFP071 Study of Storage Ring Free Electron Laser Dynamics – *B. Jia, Y.K. Wu (FEL/Duke University) J. Wu (SLAC)***
- TU5RFP072 Status of the XUV Seeding Experiment at FLASH – *J. Boedewadt, A. Azima, F. Curbis, H. Delsim-Hashemi, M. Drescher, Th. Maltezopoulos, V. Miltchev, M. Mittenzwey, J. Rossbach, S. Schulz, R. Tarkeshian, M. Wieland (Uni HH) S. Dusterer, J. Feldhaus, T. Laarmann, H. Schlarp (DESY) R. Ischebeck (PSI) S. Khan (DELTA) A. Meseck (BESSY GmbH)***
- TU5RFP073 Simulation and Optimization Research of a THz Free-Electron Laser Oscillator – *P. Tan, M. Fan, B. Qin, Y.Q. Xiong (HUST)***

- TU5RFP074 Status of Thomson Source at SPARC/PLASMONX – *D. Filippetto, L. Cultrera, G. Di Pirro, M. Ferrario, G. Gatti, C. Vaccarezza, C. Vicario (INFN/LNF) A. Bacci (Istituto Nazionale di Fisica Nucleare)***
- TU5RFP075 Status of the SPARX-FEL Project – *L. Palumbo (INFN/LNF)***
- TU5RFP076 Mechanical Layout and Civil Infrastructures of the SPARX-FEL Complex – *S. Tomassini, C. Biscari, R. Boni, A. Ghigo, L. Palumbo, C. Vaccarezza (INFN/LNF) M. Del Franco, L. Giannessi (ENEA C.R. Frascati)***
- TU5RFP077 Microbunching Instability Modeling in the SPARX Configurations – *C. Vaccarezza, M. Ferrario, A. Marinelli (INFN/LNF) L. Giannessi, C. Ronsivalle (ENEA C.R. Frascati) M. Migliorati (Rome University La Sapienza) M. Venturini (LBNL)***
- TU5RFP078 Lasing of MIR-FEL and Construction of User Beamline at Kyoto University – *M. A. Bakr, K. Higashimura, T. Kii, R. Kinjo, K. Masuda, H. Ohgaki, T. Sonobe, K. Yoshida, H. Zen (Kyoto IAE) Y.U. Jeong (KAERI)***
- TU5RFP079 ERL Staging – *K.C. Harkay, Y.-C. Chae (ANL)***
- TU5RFP080 Multi-Beam Injection and a Quasi-CW ERL for Future X-Ray Light Sources – *C.-x. Wang (ANL)***
- TU5RFP081 Status of the Energy Recovery Linac Project in Japan – *S. Sakanaka, M. Akemoto, A. Enomoto, S. Fukuda, K. Furukawa, T. Furuya, K. Haga, K. Harada, T. Honda, Y. Honda, K. Hosoyama, E. Kako, T. Kasuga, H. Kawata, M. Kikuchi, Y. Kobayashi, Y. Kojima, H. Matsushita, S. Michizono, T.M. Mitsuhashi, T. Miura, T. Miyajima, T. Muto, S. Nagahashi, H. Nakai, H. Nakajima, E. Nakamura, K. Nakanishi, T. Nogami, S. Ohsawa, T. Ozaki, S. Sasaki, M. Satoh, T. Shidara, M. Shimada, T. Suwada, T. Takahashi, R. Takai, Y. Tanimoto, M. Tawada, M. Tobiyama, T. Uchiyama, K. Umemori, M. Yamamoto, S. Yamamoto (KEK) R. Hajima, H. Iijima, N. Kikuzawa, E.J. Minehara, R. Nagai, N. Nishimori, M. Sawamura (JAEA/ERL) H. Hanaki (JASRI/SPring-8) A. Ishii, I. Ito, T. Kawasaki, H. Kudo, N. Nakamura, H. Sakai, S. Shibuya, K. Shinoe, T. Shiraga, H. Takaki (ISSP/SRL) M. Katoh (UVSOR) M. Kuriki (HU/AdSM) K. Torizuka, D. Yoshitomi (AIST)***
- TU5RFP082 ERL Based Light Source with Multiturn Circulation Ring – *T. Nakamura (JASRI/SPring-8)***
- TU5RFP083 Progress on the Commissioning of ALICE, the Energy Recovery Linac Based Light Source at Daresbury Laboratory – *S.L. Smith, C.D. Beard, S.R. Buckley, D.J. Dunning, S.P. Jamison, J.K. Jones, L.B. Jones, P.A. McIntosh, J.W. McKenzie, K.J. Middleman, B.L. Militsyn, A.J. Moss, J.F. Orrett, Y.M. Saveliev, D.J. Scott, B.J.A. Shepherd, N. Thompson, A.E. Wheelhouse, P.H. Williams (STFC/DL/ASTeC) K. Harada (KEK) S.F.***

*Hill (STFC/DL/SRD) D.J. Holder (Cockcroft Institute) P.J. Phillips  
(University of Dundee)*

**TU5RFP084 Beam Optics Study for the Compact ERL in Japan – T. Shiraga, N. Nakamura, H. Takaki (ISSP/SRL) R. Hajima (JAEA/ERL) K. Harada, Y. Kobayashi, T. Miyajima, S. Sakanaka, M. Shimada (KEK)**

**TU6PF — Afternoon Poster Session**

*Applications of Accelerators, High Energy Hadron Accelerators,  
Pulsed Power and High Intensity Beams A15*

- TU6PFP001 Production of High-Purity-Niobium under Industrial Scale for Upcoming Linear Collider Projects – R. Grill, W. Simader (Plansee Metall GmbH) B. Spaniol (W.C. Heraeus GmbH, Materials Technology Dept.) U. Weitzel-Hoefler (W.C. Heraeus GmbH COPY, Materials Technology Dept.)**
- TU6PFP002 Design, Construction and Tests of a 10 MeV Linac for Polymer Radiation Processing – G. Feng (USTC/NSRL)**
- TU6PFP003 Application of Portable 950 keV X-Band Linac X-Ray Source to Condition Based Maintenance for Pump-Impeller – T. Yamamoto, T. Natsui (UTNL) E. Hashimoto, S. Hirai, K. Lee, M. Uesaka (The University of Tokyo, Nuclear Professional School) J. Kusano, N. Nakamura, M. Yamamoto (A) E. Tanabe (AET Japan, Inc.)**
- TU6PFP004 Proton LINACs for Medical Applications – Y. Kawai Parker, H. Seki (AccSys)**
- TU6PFP005 Status Report on the Centro Nazionale di Adroterapia Oncologica (CNAO) – E. Bressi, M. Pullia (CNAO Foundation) C. Biscari (INFN/LNF)**
- TU6PFP006 Conceptual Design of Carbon/Proton Synchrotron for Particle Beam Therapy – F. Noda, F. Ebina, F. Fujitaka, H. Hae, H. Hiramoto, H. Nishiuchi, K. Saito, M. Umezawa (Hitachi, Ltd., Energy and Environmental System Laboratory) H. Akiyama (Hitachi Ltd., Power & Industrial Systems)**
- TU6PFP007 Compact and Non Expensive Transport Systems for Medical Facilities Using Ion Beams – M.M. Kats (ITEP)**
- TU6PFP008 Design Features of a 300 AMeV Superconducting Cyclotron for Hadron Therapy – L.A.C. Piazza, L. Calabretta, D. Campo, L. Celona, G. Cuttone, G. Gallo, D. Garufi, R. La Rosa, M.M. Maggiore, S. Passarello (INFN/LNS)**
- TU6PFP009 Design of Laser-Driven Ion Accelerator Systems for Hadron Therapy at PMRC (Photo-Medical Research Center) – H. Sakaki (JAEA)**
- TU6PFP010 Feasibility Studies on the In-Vivo Experiments at the MC-50 Cyclotron Using a Prototype LEPT System – K. R. Kim, J.-H. Jang, M.H. Jung, S.-K. Lee (KAERI) Y.M. Lee (Kyungpook National University) T.K. Yang (KIRAMS)**

- TU6PFP011 Preliminary Results of Sample Activation Measurement Using a HPGe Detector for the Nano Particle Fabrication by Proton Beam Irradiation – K. R. Kim, J.-H. Jang, M.H. Jung, H.O. Kim, C.W. Lee (KAERI) Chai, G.s. Chai (Samsung SDI Co. Ltd.) H.J. Kim (Kyungpook National University) M.K. Min (SAMSUNG SDI CO. LTD)**
- TU6PFP012 Extra Dose Reduction by Optimizing RF-KO Slow-Extraction at HIMAC – K. Mizushima, T. Fujisawa, T. Furukawa, Y. Iwata, K. Noda, S. Sato, T. Shirai (NIRS) H. Uchiyama (AEC)**
- TU6PFP013 Status of the Siemens Particle Therapy Accelerators – H. Rohdjeß, S. Emhofer, P. Fischer, V.L. Lazarev, M. Leghissa, B. Steiner, E. Tanke, P. Urschütz (Siemens Med) M. Budde, F. Bødker, I. Jensen, S.P. Møller, S.V. Weber (Siemens DK)**
- TU6PFP014 Electron Linac Concepts for the Production of Molybdenum 99 – S.R. Koscielniak, N.S. Lockyer, L. Merminga (TRIUMF)**
- TU6PFP015 Compton Backscattering Concept for the Production of Molybdenum-99 – L. Merminga (TRIUMF) G.A. Krafft (JLAB)**
- TU6PFP016 Pinpoint keV X-Ray Imaging for X-Ray Drug Delivery System – M. Uesaka (The University of Tokyo, Nuclear Professional School) K. Mizuno, A. Mori, T. Natsui, H. Taguchi, J.D. Trono (University of Tokyo)**
- TU6PFP017 Biomolecular Cluster Irradiation System (DIAM) – M.J. Bajard (UCBL) C. Peaucelle (IN2P3 IPNL)**
- TU6PFP018 MeV Ultrafast Electron Diffraction System at the NSLS SDL – Y. Hidaka, C.C. Kao, J.B. Murphy, S. Pjerov, B. Podobedov, H.J. Qian, S. Seletskiy, Y. Shen, X.J. Wang, X. Yang (BNL)**
- TU6PFP019 Magnetic Property Changes of FeMn-NiFe Thin Films by the Irradiation of Various Ion Species – Y. Noh, K. R. Kim (KAERI)**
- TU6PFP020 Integration of Scanning Probes with Ion Beams with Application to Single Ion Implantation – T. Schenkel (LBNL)**
- TU6PFP021 Dual-Energy Operations at LANSCE for Proton Induced Nuclear Cross Section Measurements – M.S. Gulley, H. Bach, L.J. Bitteker, A.J. Couture, R. E. Gritzo, F.M. Nortier, C. Pillai, A. Seifter, D. M. Smith, J.L. Ullmann, F.O. Valdez, S.A. Wender (LANL)**
- TU6PFP022 Decontamination of Antistress Food Supplement Components by Irradiation with Electron Beam – R.D. Minea, M. Dumitrascu, E. Mitru, E. Sima (INFLPR) P. Constantinescu (ISPB) E. Mazilu (Hofigal S.A.) V. Meltzer (University of Bucharest, Faculty of Chemistry)**
- TU6PFP023 Spectrocolorimetric Methods Used to Evaluate the Radioinduced Changes in Irradiated Medicinal Plants with Electron Beam in Order to Decontaminate – R.D. Minea, M. Dumitrascu, E. Mitru, E. Sima (INFLPR) E. Mazilu (Hofigal S.A.)**

- TU6PFP024 Swift Heavy Ion Induced Modifications at Multilayered Mo/Si System – *G. Agarwal, I.P. Jain, V.K. Kulshrestha, R. Verma (UOR) D. Kabiraj (IUAC)***
- TU6PFP025 SHI Induced Effect on Structural, Optical and Electrical Properties of Nickel Nitride Thin Films – *R. Dhunna, I.P. Jain, C. Lal, V. Sisodia (UOR)***
- TU6PFP026 Conceptual Design of a Helium Ion FFAG for Helium Embitterment Research – *H.L. Luo, H. Hao, X.Q. Wang (USTC/NSRL)***
- TU6PFP027 Improvement of Compact Pico-Second and Nano-Second Pulse Radiolysis Systems at Waseda University – *A. Fujita, Y. Hama, Y. Hosaka, T. Nomoto, K. Sakaue, M. Washio (RISE) S. Kashiwagi (ISIR) R. Kuroda (AIST) K.U. Ushida (RIKEN)***
- TU6PFP028 GENEPI-3C, a Versatile Neutron Generator for the GUINEVERE ADS Feasibility Studies – *J.-M. De Conto, M.A. Baylac, A. Billebaud, P. Boge, D. Bondoux, J. Bouvier, T. Cabanel, Y. Carcagno, G. Dargaud, E. Froidefond, Y. Gomez-Martinez, M. Heusch, D. Marchand, R. Micoud, E. Perbet, M. Planet, D. Tourres (LPSC) P. Beaten, G. Vittiglio (SCK-CEN) G. Gaudiot, G. Heitz, P. Poussot, C. Ruescas (IPHC) J.M. Gautier, Y. Merrer (LPC) G. Granget, F. Mellier (CEA Cadarache) J. Laune, D. Reynet (IPN)***
- TU6PFP029 Reactor Design Studies for an Accelerator Driven System – *C. Bungau (Manchester University) R.J. Barlow (UMAN) R. Cywinski (University of Leeds)***
- TU6PFP030 6D Acceleration Studies in Proton Fixed Field Alternating Gradient Accelerator Lattices – *S.C. Tygier (Manchester University) R.J. Barlow, H.L. Owen (UMAN)***
- TU6PFP031 Research on a Terahertz Coherent Transition Radiation Source Based on Ultrashort Electron Beam – *W. Liu, Y.-C. Du, W.-H. Huang, R.K. Li, C.-X. Tang, D. Wu, L.X. Yan (TUB)***
- TU6PFP032 Comparison of Excitation Function for the  $^{64}\text{Cu}$  Production via Various Nuclear Reactions – *M. Sadeghi (Agricultural, Medical & Industrial Research School) Z. Gholamzadeh, S. Seyyedi (Islamic Azad University, Faculty of Engineering)***
- TU6PFP033 No-Carrier-Added  $^{109}\text{Cd}$  Production from Silver on a Gold-Coated Copper Backing – *M. Mirzaii, M. Sadeghi (Agricultural, Medical & Industrial Research School) Z. Gholamzadeh (Islamic Azad University, Faculty of Engineering)***
- TU6PFP034 Design of L-Band High Power Linac for Irradiation Processing – *H.C. Liu, S. Fu, G. Pei (IHEP Beijing)***
- TU6PFP035 A University-Based Accelerator Complex for Pulsed Neutron and Proton Applications, Therapy, and Accelerator-Driven Sub-Critical System Tests – *J. Wei (IHEP Beijing)***

- TU6PFP036 The First Results of the SOPHI Experiment at Saclay – O. Delferriere, A. Curtoni, P. Dupré, L. Liszkay, T. Muranaka, P. Perez, J.M. Rey, N. Ruiz, Y. Sacquin (CEA)**
- TU6PFP037 End-to-End Spectrum Reconstruction Method to Assist Electron Beam Parameters Determination from Compton gamma-Ray Beam – C. Sun, Y.K. Wu (FEL/Duke University) G. Rusev, A. Tonchev (TUNL)**
- TU6PFP038 Studies of High Energy Density Matter Using Intense Ion Beams at FAIR at Darmstadt: The HEDgeHOB Collaboration – N.A. Tahir (GSI) V.E. Fortov, I. Lomonosov, A. Shutov (IPCP) D. Hoffmann (TU Darmstadt) R. Piriz (Universidad de Castilla-La Mancha)**
- TU6PFP039 Material Recognition by Means of Different Bremsstrahlung Beams: Is that Really Possible? – L. Auditore (INFN - Gruppo Messina) L. Auditore, R.C. Barna, D. Loria, E. Morgana, A. Trifiro, M. Trimarchi (Università di Messina) M. Carpinelli (INFN-Cagliari) A. Franconieri, M. Gambaccini (INFN-Ferrara)**
- TU6PFP040 Ring Optics for Compact X-Ray Source – C. Bruni, Y. Fedala, J. Haissinski, M. Lacroix, R. Roux, A. Variola (LAL) P. Brunelle, A. Loulergue (SOLEIL)**
- TU6PFP041 Fast Pulsing Neutron Generators for Security Application – Q. Ji, J.W. Kwan (BNL)**
- TU6PFP042 Dual-Energy Electron Linac for Cargo Inspection System – M.A. Ferderer, D. Churanov, A.A. Krasnov, M. Urbant, A.A. Zavadtsev, D.A. Zavadtsev (IBS) S.V. Kutsaev, N.P. Sobenin (MEPhI)**
- TU6PFP043 Design Study of an Accelerator Mass Spectrometer Based on a Cyclotron – J.-W. Kim (NCC, Korea) M. Youn, C.C. Yun (SNU)**
- TU6PFP044 Development of Laser Compton Scattering X-Ray and High Intense THz Sources Based on S-Band Compact Linac – R. Kuroda, H. Ikeura-Sekiguchi, M.K. Koike, H. Ogawa, N. Sei, H. Toyokawa, K. Y. Yamada, M.Y. Yasumoto (AIST)**
- TU6PFP045 Design and Test of a Low Run-Out Rotating Sample Stage for TXM at NSRRC – H.S. Wang (NSRRC)**
- TU6PFP046 High-Flux Inverse Compton Scattering Systems for Medical, Industrial and Security Applications – S. Boucher, P. Frigola, A.Y. Murokh (RadiaBeam) I. Jovanovic (Purdue University) J.B. Rosenzweig, G. Travish (UCLA)**
- TU6PFP047 Magnet Design and Testing of a FFAG Betatron for Industrial and Security Applications – S. Boucher, R.B. Agustsson, P. Frigola, A.Y. Murokh, M. Ruelas (RadiaBeam) F.H. O'Shea, J.B. Rosenzweig, G. Travish (UCLA)**

- TU6PFP048 **Generation of Electron Beam Train with Adjustable Spacing for Coherently Enhanced Terahertz Radiation Source – Y.-C. Du, W.-H. Huang, R.K. Li, W. Liu, C.-X. Tang (TUB)**
- TU6PFP049 **Coherent Terahertz Radiation Emitted by Sub-Picosecond Electron Bunches in a Magnetic Chicane – M.P. Dunning, G. Andonian, A. M. Cook, E. Hemsing, S. Reiche, J.B. Rosenzweig, D. Schiller (UCLA) M. Babzien, K. Kusche, V. Yakimenko (BNL) A.Y. Murokh (RadiaBeam)**
- TU6PFP050 **Exploring the Feasibility of Stand Alone Muon Facility for MuSR Research – A. Bungau (University of Huddersfield) R. Cywinski (University of Leeds) P.J.C. King, J.S. Lord (STFC/RAL)**
- TU6PFP051 **Development and Optimisation of the Muon Target at the ISIS-RAL Muon Facility – A. Bungau (University of Huddersfield) R. Cywinski (University of Leeds)**
- TU6PFP052 **GEANT4 Simulations of the ISIS Muon Target at Rutherford Appleton Laboratory – A. Bungau (University of Huddersfield) R. Cywinski (University of Leeds) P.J.C. King, J.S. Lord (STFC/RAL)**
- TU6PFP053 **Structural and Optical Properties of AlN/Si System – R. Dhunna, I.P. Jain, C. Lal, V. Sisodia (UOR)**
- TU6PFP054 **Simulation of Longitudinal Phase Space Painting for the CSNS RCS Injection – L. Liu, J. Qiu, J. Tang, T. Wei (IHEP Beijing)**
- TU6PFP055 **An RF Scenario for Protons and Ions in the PS2 – S. Hancock, M. Benedikt, C. Carli (CERN)**
- TU6PFP056 **Longitudinal Painting Schemes for H<sup>+</sup> Charge Exchange Injection into the PS2 – C. Carli, M. Benedikt, S. Hancock (CERN) V. Knuenz, I. Vonderhaid (TU Vienna)**
- TU6PFP057 **Operational Experience with First Circulating Beam in the LHC – M. Lamont, R. Alemany-Fernandez, R. Bailey, P. Collier, B. Goddard, V. Kain, A. Macpherson, L. Ponce, S. Redaelli, W. Venturini Delsolaro, J. Wenninger (CERN)**
- TU6PFP058 **An Alternative Approach to Project X – W. Chou (Fermilab)**
- TU6PFP059 **Numerical Studies of High-Intensity Injection Painting for Project X – A.I. Drozdin, L.G. Vorobiev (Fermilab)**
- TU6PFP060 **Current and Future High Power Operation of Fermilab Main Injector – I. Kourbanis, P. Adamson, B.C. Brown, D. Capista, W. Chou, D.K. Morris, K. Seiya, G.H. Wu, M.-J. Yang (Fermilab)**
- TU6PFP061 **Progress in Multi-Batch Slip Stacking at the Fermilab Main Injector and Future Plans – K. Seiya, B. Chase, J.E. Dey, P.W. Joireman, I. Kourbanis, J. Reid (Fermilab)**

- TU6PFP062 **Preparations for Muon Experiments at Fermilab – M.J. Syphers, M. Popovic, E. Prebys (Fermilab) C.M. Ankenbrandt (Muons, Inc)**
- TU6PFP063 **Synchrotron Operation with Intermediate Charge State Heavy Ions – P.J. Spiller (GSI)**
- TU6PFP064 **Feasibility of a Common Proton Driver for a Neutron Spallation Source and a Neutrino Factory – J. Pasternak, M. Aslaninejad, K.R. Long (Imperial College of Science and Technology, Department of Physics) J. Pasternak, J.K. Pozimski (STFC/RAL) C.M. Warsop (STFC/RAL/ISIS)**
- TU6PFP065 **Status of the J-PARC 3-GeV RCS – M. Kinsho (JAEA/J-PARC)**
- TU6PFP066 **Beam Commissioning of Spallation Neutron and Muon Source at J-PARC – S.I. Meigo, M. Futakawa, T. Kai, F. Noda, M. Ohi, S. Shinichi (JAEA/J-PARC) H. Fujimori (J-PARC, KEK & JAEA)**
- TU6PFP067 **Beam Loss Issues Connected to the Foil Scattering: Estimation vs. Measurement at the RCS of J-PARC – P.K. Saha, H. Hotchi, K. Yamamoto, M. Yoshimoto (JAEA/J-PARC) Y. Irie (KEK)**
- TU6PFP068 **Longitudinal Painting Studies in the J-PARC RCS – F. Tamura, K. Hasegawa, M. Nomura, A. Schnase, T. Shimada, H. Suzuki, M. Yamamoto (JAEA/J-PARC) K. Hara, C. Ohmori, M. Toda, M. Yoshii (KEK/JAEA)**
- TU6PFP069 **Physics Design of the PEFP RCS – J.-H. Jang, Y.-S. Cho, H.S. Kim, H.-J. Kwon (KAERI) Y.Y. Lee (BNL)**
- TU6PFP070 **The Beam Dynamics Design for J-PARC Linac Energy Upgrade – T. Morishita, H. Sako, Y. Yamazaki (JAEA/J-PARC) H. Ao (JAEA/LINAC) M. Ikegami (KEK)**
- TU6PFP071 **Exploration of Design Alternatives for an 8 GeV Proton Linac at Fermilab – X. Wu, C. Compton, M. Doleans, W. Hartung, F. Marti, R.C. York, Q. Zhao (NSCL)**
- TU6PFP072 **SNS Superconducting Linac Power Ramp-Up Status and Plan – S.-H. Kim, D.E. Anderson, I.E. Campisi, F. Casagrande, M.T. Crofford, R.I. Cutler, G.W. Dodson, J. Galambos, T.W. Hardek, S. Henderson, M.P. Howell, D.-O. Jeon, Y.W. Kang, K.-U. Kasemir, S.W. Lee, J. Mammosser, M.P. McCarthy, Y. Zhang (ORNL)**
- TU6PFP073 **Coherent Electron Cooling Proof-of-Principle Experiment at RHIC – E. Pozdnyakov, I. Ben-Zvi, J. Bengtsson, M. Blaskiewicz, A.V. Fedotov, Y. Hao, A. Kayran, V. Litvinenko, G. Wang (BNL) G.I. Bell, D.L. Bruhwiler, A.V. Sobol (Tech-X) O.A. Shevchenko, N. Vinokurov (BINP SB RAS)**
- TU6PFP074 **Analytical Studies of Coherent Electron Cooling – G. Wang, M. Blaskiewicz, V. Litvinenko (BNL)**

- TU6PFP075 Progress in Antiproton Production at the Fermilab Tevatron Collider – *R.J. Pasquinelli, B.E. Drendel, K. Gollwitzer, S.R. Johnson, V.A. Lebedev, A.F. Leveling, J.P. Morgan, V.P. Nagaeslaev, D.W. Peterson, A.D. Sondgeroth, D. Vander Meulen, S.J. Werkema (Fermilab)***
- TU6PFP076 Optimization of Electron Cooling in the Recycler – *A.V. Sheomyakin, A.V. Burov, K. Carlson, L.R. Prost, M. Sutherland, A. Warner (Fermilab)***
- TU6PFP077 Status of the 2 MeV Electron Cooler Development for COSY Juelich – *J. Dietrich (FZJ) M.I. Bryzgunov, A.D. Goncharov, V.V. Parkhomchuk, V.B. Reva, D.N. Skorobogatov (BINP SB RAS)***
- TU6PFP078 Stochastic Cooling for the HESR at the FAIR Facility – *H. Stockhorst, R. Maier, D. Prasuhn, R. Stassen (FZJ) T. Katayama (CNS)***
- TU6PFP079 First Year of Physics at CNGS – *I. Efthymiopoulos, A. Ferrari, E. Gschwendtner, A. Pardons, L. Sarchiapone, H. Vincke, J. Wenninger (CERN) D. Autiero (IN2P3 IPNL) A. Guglielmi (INFN/LNL) P.R. Sala (Istituto Nazionale di Fisica Nucleare)***
- TU6PFP080 Non-Scaling FFAG Accelerator Variants for HEP and Medical Applications – *C. Johnstone (Fermilab) S.R. Koscielnik (TRIUMF)***
- TU6PFP081 Commissioning of the Muon Test Area Beamline at Fermilab – *C. Johnstone, F.G. Garcia, M.A. Gerardi, W.S. Higgins, M.J. Kucera, M.R. Kufer, D.L. Newhart (Fermilab)***
- TU6PFP082 Baseline Design for the ESS-Bilbao Superconducting Proton Accelerator – *F.J. Bermejo (Bilbao, Faculty of Science and Technology) I. Bustinduy, D. Fernandez-Cañoto (ESS Bilbao) V. Etxebarria (University of the Basque Country, Faculty of Science and Technology) J. Lucas (Elytt Energy) L. Uriarte (Fundacion TEKNIKER)***
- TU6PFP083 Conceptual Design of the ESS-Scandinavia Accelerator and Target – *S. Peggs (BNL) M. Lindroos (CERN)***
- TU6PFP084 A 15 MeV Accelerator Scheme Based on a DC Photo-Injector and a RF Superconducting Linac – *D. Guilhem (CEA/DAM - ile de France, Service CEF)***
- TU6PFP085 Time Structure of Particle Production in the MERIT High-Power Target Experiment – *I. Efthymiopoulos, A. Fabich, A. Grudiev, F. Haug, J. Lettry, M. Palm, H. Pernegger, R.R. Steenberg (CERN) J.R.J. Bennett (STFC/RAL/ASTeC) O. Caretta, P. Loveridge (STFC/RAL) A.J. Carroll, V.B. Graves, P.T. Spampinato (ORNL) H.G. Kirk, H. Park, T. Tsang (BNL) K.T. McDonald (PU) N.V. Mokhov, S.I. Striganov (Fermilab)***
- TU6PFP086 LHC Beams from the CERN PS Booster – *B. Mikulec, A. Blas, C. Carli, A. Findlay, K. Hanke, G. Rumolo, J. Tan (CERN)***

- TU6PFP087 High Intensity Beams from the CERN PS Booster – *B. Mikulec, M. Chanel, A. Findlay, K. Hanke, D. Quatraro, G. Rummolo, J. Tan, R. Tomas (CERN)***
- TU6PFP088 Chopper for Intense Proton Beams at Repetition Rates up to 250 kHz – *C. Wiesner, L.P. Chau, M. Droba, O. Meusel, I. Mueller, U. Ratzinger (IAP)***
- TU6PFP089 Acceleration of Ions via a Shock Compression in a Critical Density Plasma Using a CO<sub>2</sub> Laser – *F.S. Tsung, C. Joshi, W.B. Mori (UCLA) S.F. Martins (Instituto Superior Tecnico)***
- TU6PFP090 Comparison of Measurements and Simulations in the J-PARC 3-GeV RCS – *H. Hotchi (JAEA/J-PARC)***
- TU6PFP091 Performance of the Bump System for the Painting Injection at J-PARC – *T. Takayanagi, H. Hotchi, Y. Irie, J. Kamiya, M. Kinsho, P.K. Saha, T. Togashi, T. Ueno, M. Watanabe, M. Yoshimoto (JAEA/J-PARC) H. Harada (Hiroshima University, Graduate School of Science)***
- TU6PFP092 Commissioning Results of the Upgraded Neutralized Drift Compression Experiment – *S.M. Lidia, P.K. Roy, P.A. Seidl, W.L. Waldron (LBNL) E.P. Gilson (PPPL)***
- TU6PFP093 Fast Correction Optics to Reduce Chromatic Aberrations in Longitudinally Compressed Ion Beams – *S.M. Lidia, E. P. Lee, D. Ogata, P.A. Seidl, W.L. Waldron (LBNL) S.M. Lund (LLNL)***
- TU6PFP094 Compact Proton Injector and First Accelerator System Test for Compact Proton Dielectric Wall Cancer Therapy Accelerator – *Y.-J. Chen, D.T. Blackfield, G.J. Caporaso, E.G. Cook, S. Falabella, G. Guethlein, J.R. Harris, S.A. Hawkins, S.D. Nelson, B. R. Poole, R.A. Richardson, S. Sampayan, L. Wang, J.A. Watson (LLNL) D.W. Pearson (TomoTherapy) J.T. Weir (CPAC)***
- TU6PFP095 Beamline for Warm Dense Matter Experiment Using the KEK Digital Accelerator – *T. Kikuchi (Nagaoka University of Technology) K. Horioka (TIT) T. Sasaki (Nihon University) K. Takayama (KEK)***
- TU6PFP096 Cold-Cathode Kiloampere Electron Gun with Secondary Emission at Relativistic Voltage – *S.A. Cherenshchykov (NSC/KIPT)***
- TU6PFP097 Collective Instabilities and Beam-Plasma Interactions for an Intense Ion Beam Propagating through Background Plasma – *R.C. Davidson, M. Dorf, I. Kaganovich, H. Qin, E. Startsev (PPPL)***
- TU6PFP098 Multi-Meter-Long Plasma Source for Heavy Ion Beam Charge Neutralization – *P. Efthimion, R.C. Davidson, E.P. Gilson (PPPL) B.G. Logan, P.A. Seidl, W.L. Waldron (LBNL)***

**Tuesday, May 5**

- TU6PFP099 **High Power Target for 0.5 MW Photo-Fission Electron and 100 kW Proton Driver – P.G. Bricault, M. Dombsky (TRIUMF)**
- TU6PFP100 **Temperature and Stress Rise Induced by Cracks in Accelerating Structures – W. Zhu, T.M. Antonsen, J. Mizrahi, G.S. Nusinovich, G. Sharon (UMD)**
- TU6PFP101 **Commissioning of the Low Energy Beam Transport of the Front End Test Stand – J.J. Back (University of Warwick) J. Alonso (Fundacion Tekniker) F.J. Bermejo (Bilbao, Faculty of Science and Technology) R. Enparantza (Fundacion TEKNIKER) D.C. Faircloth, A.P. Letchford, P. Wise (STFC/RAL/ISIS) C. Gabor (STFC/RAL/ASTeC) J. Lucas (Elytt Energy) J.K. Pozimski (STFC/RAL) P. Savage (Imperial College of Science and Technology, Department of Physics)**

Tuesday, May 5 14:00 – 18:30  
Hyatt Regency Vancouver, Regency Foyer

**TU6RF — Afternoon Poster Session**  
*Accelerator Technology T11, T12, T24, T28,  
Pulsed Power and High Intensity Beams T16*

- TU6RFP001 The New Generation Power Supplies for the Circular Polarized Undulator at the APS – *B. Deriy, A.L. Hillman, J. Wang (ANL)***
- TU6RFP002 A High Resolution DPWM Generation Topology for Digitally Controlled Precision DC/DC Converters at the APS – *G. Feng, B. Deriy, T. Fors, J. Wang (ANL)***
- TU6RFP003 Commissioning of the New AGS MMPS Transformers – *E.M. Bajon (BNL)***
- TU6RFP004 Progress on the R&D of the CSNS Power Supply System – *J. Zhang (IHEP Beijing)***
- TU6RFP005 Precision Magnet Power Supply for Accelerator Application at VEC Centre, Kolkata – *A.S. Banerjee (DAE/VECC)***
- TU6RFP006 Power Supplies of PETRA III – *H.-J. Eckoldt (DESY)***
- TU6RFP007 Fermilab's Booster Correction Element Power Supply Silicone Temperature Rise – *G.E. Krafczyk, H. Pfeffer, G.J. Warchol (Fermilab)***
- TU6RFP008 A Dual Triangle Timing Circuit For Improved Performance of 4-Quadrant H-Bridge Switchers – *G.E. Krafczyk, H. Pfeffer, G.J. Warchol (Fermilab)***
- TU6RFP009 ALS FPGA-Based Digital Power Supply Controller for Ramped Power Supplies in the Booster – *J.M. Weber, M.J. Chin, C. Steier, E.C. Williams (LBNL)***
- TU6RFP010 TLS Corrector Magnet Power Supplies Upgrade – *K.-B. Liu, P.C. Chiu, K.T. Hsu, K.H. Hu (NSRRC)***
- TU6RFP011 Increasing Output Current Stability by Adding an External Current Control Loop – *K.-B. Liu (NSRRC)***
- TU6RFP012 Conduction EMI and EMC Measurement and Testing in NSRRC Power Supply – *C.-Y. Liu (NSRRC)***
- TU6RFP013 Conductive EMI Test of Magnet Power Supply in NSRRC – *Y.-H. Liu, J.-R. Chen, C.-Y. Liu (NSRRC)***
- TU6RFP014 The EMI Reduction of Pulsed Magnets – *Y.-H. Liu, C.K. Chan, C.-H. Chang, J.-R. Chen, C.-S. Fann, C.-S. Yang (NSRRC)***
- TU6RFP015 High Precision Voltage Reference for High Precision Magnet Power Supplies – *S.-H. Jeong, D.E. Kim, K.-H. Park (PAL) B.-K. Kang (POSTECH)***

- TU6RFP016 **Klystron Cathode Heater Power Supply System Based on the High-Voltage Gap Transformer – P.A. Bak, A.A. Koropenov, V.D. Zabrodin (BINP SB RAS) V. Vogel (DESY)**
- TU6RFP017 **Digitally Controlled High Availability Power Supply – D.J. MacNair (SLAC)**
- TU6RFP018 **10 Hz Pulsed Power Supplies and the DC Septum Power Supply for the ISIS Second Target Station (TS-2) – S.L. Birch, S.P. Stoneham (STFC/RAL/ISIS)**
- TU6RFP019 **Elettra Booster Magnet Power Supplies: One Year of Operations – R. Visintini, D.M. Molaro (ELETTRA)**
- TU6RFP020 **Magnet Power Supplies for FERMI@Elettra – R. Visintini, M. Cautero, D.M. Molaro (ELETTRA)**
- TU6RFP021 **New Generation Transtechnik Modular Power Supply TT-MoPS for Accelerators – M. Hohmann (Transtechnik)**
- TU6RFP022 **First Results for the Beam Commissioning of the CERN Multi-Turn Extraction – S.S. Gilardoni, F. Arnold Malandain, E. Benedetto, T. Bohl, S. Cettour Cave, K. Cornelis, H. Damerau, F. Follin, T. Fowler, F. Franchi, P. Freyermuth, H. Genoud, R. Giachino, M. Giovannozzi, S. Hancock, Y. Le Borgne, D. Manglunki, G. Metral, L. Pereira, J.P. Ridewood, Y. Riva, M. Schokker, L. Sermeus, R.R. Steerenberg, B. Vandorpe, J. Wenninger (CERN)**
- TU6RFP023 **Installation and Hardware Commissioning of the Multi-Turn Extraction at the CERN Proton Synchrotron – S.S. Gilardoni, D. Allard, M.J. Barnes, O.E. Berrig, A. Beuret, D. Bodart, P. Bourquin, R. Brown, M. Caccioppoli, F. Caspers, J.-M. Cravero, C. De Almeida Martins, C.G.A. Dehayav, T. Dobers, M. Dupont, G. Favre, T. Fowler, F. Franchi, M. Giovannozzi, J. Hansen, M. Karppinen, C. Lacroix, E. Mahner, V. Mertens, J. Monteiro, R. Noulibus, E. Page, R. Principe, C. Rossi, L. Sermeus, R.R. Steerenberg, G. Vandoni, G. Villiger, Th. Zickler (CERN)**
- TU6RFP024 **Initial Results from Beam Commissioning of the LHC Dump System – B. Goddard, I.V. Agapov, E. Carlier, L. Ducimetiere, E. Gallet, M. Gyr, L.K. Jensen, O.R. Jones, V. Kain, T. Kramer, M. Lamont, M. Meddahi, V. Mertens, T. Risselada, J.A. Uythoven, J. Wenninger, W.J.M. Weterings (CERN)**
- TU6RFP025 **Operational Considerations for the PSB H<sup>+</sup> Injection System – W.J.M. Weterings, M. Aiba, J. Borburgh, C. Carli, T. Fowler, B. Goddard, H. Vincke (CERN)**
- TU6RFP026 **Beam Commissioning of Injection into the LHC – V. Mertens, I.V. Agapov, B. Goddard, M. Gyr, V. Kain, T. Kramer, M. Lamont, M. Meddahi, J.A. Uythoven, J. Wenninger (CERN)**
- TU6RFP027 **Resonant Third-Integer Extraction from the PS2 – M. Gyr, W. Bartmann, M. Benedikt, B. Goddard, M. Meddahi (CERN) A. Koschik (ETHZ) D. Mayani Paras (UNAM)**

- TU6RFP028 **Laser Stripping for the PS2 Charge-Exchange Injection System – *B. Goddard, W. Bartmann (CERN) V.V. Danilov (ORNL) D.E. Johnson (Fermilab)***
- TU6RFP029 **Experience with the LHC Beam Dump Post-Operational Checks System – *J.A. Uythoven, J. Axensalva, V. Baggioolini, E. Carlier, E. Gallet, B. Goddard, V. Kain, M. Lamont, N. Magnin (CERN)***
- TU6RFP030 **Fast Injection into the PS2 – *J.A. Uythoven, W. Bartmann, J. Borburgh, T. Fowler, B. Goddard, M. Meddahi (CERN)***
- TU6RFP031 **LHC Beam Dump System - Consequences of Abnormal Operation – *T. Kramer, B. Goddard, J.A. Uythoven (CERN)***
- TU6RFP032 **Improvements to Antiproton Accumulator to Recycler Transfers at the Fermilab Tevatron Collider – *J.P. Morgan, B.E. Drendel, D. Vander Meulen (Fermilab)***
- TU6RFP033 **AC Dipole System for Inter-Bunch Beam Extinction in Mu2e Beam Line – *E. Prebys, A.I. Drozhdin, N.V. Mokhov (Fermilab) C.M. Ankenbrandt (Muons, Inc)***
- TU6RFP034 **SIS100/300 Extraction System Design - Beam Dynamics and Technological Challenges – *N. Pyka, U.B. Blell, C. Muehle, E. Mustafin, A. Saa-Hernandez, P.J. Spiller, J. Stadlmann (GSI) A. Smolyakov (ITEP)***
- TU6RFP035 **Development of Spill Control System for the J-PARC Slow Extraction – *A. Kiyomichi, T. Adachi, R. Muto, H. Nakagawa, H. Sato, H. Someya, M. Tomizawa (KEK) T.I. Ichikawa, K. Mochiki, S. Onuma (Musasi Institute of Technology, Instrumentation and Control Laboratory) K. Noda (NIRS)***
- TU6RFP036 **Beam Test of the Strip-Line Kicker at KEK-ATF – *T. Naito, S. Araki, H. Hayano, K. Kubo, S. Kuroda, T. Okugi, N. Terunuma, J. Urakawa (KEK)***
- TU6RFP037 **Effects of the Residual Gas Scattering in Plasma Accelerator Experiments and Linacs – *F. Broggi (INFN/LASA) A. Bacci, A.R. Rossi, L. Serafini (Istituto Nazionale di Fisica Nucleare) A. Cianchi (INFN-Roma II) A. Clozza, G. Di Pirro (INFN/LNF)***
- TU6RFP038 **Conceptual Design of Beam Transport Lines for the PEEP User Facility – *B.-S. Park, Y.-S. Cho, B.H. Choi, I.-S. Hong, J.-H. Jang, H.S. Kim, K. R. Kim, H.-J. Kwon, H.R. Lee (KAERI)***
- TU6RFP039 **Laser Stripping for H<sup>+</sup> Injection – *K.B. Beard, V.G. Dudnikov (Muons, Inc) V.V. Danilov (ORNL) M.D. Shinn (JLAB)***
- TU6RFP040 **Design of the TPS Injection System – *C.K. Chan, C.-H. Chang, P.J. Chou, C.-S. Fann, G.-Y. Hsiung, Y.-H. Liu, C.-S. Yang (NSRRC) J.-R. Chen (National Tsing Hua University)***
- TU6RFP041 **Computational Model of Hydrogen Ion Laser Stripping – *T.V. Gorlov, V.V. Danilov, A.P. Shishlo (ORNL)***

## Tuesday, May 5

- TU6RFP042 **An Electron Beam SNS Foil Test Stand** – *R.W. Shaw, D.P. Bontrager, M.A. Plum (ORNL) C.S. Feigerle (University of Tennessee) C.F. Luck (ORNL RAD)*
- TU6RFP043 **Optimization of the Booster to SPEAR Transport Line for Top-Off Injection** – *J.A. Safranek, W.J. Corbett, X. Huang, J.J. Sebek (SLAC)*
- TU6RFP044 **Options for an 11 GeV RF Beam Separator for the Jefferson Lab CEBAF Upgrade** – *J.R. Delayen, M. Spata, H. Wang (JLAB) J.R. Delayen (ODU)*
- TU6RFP045 **New Beam Injection System with a Single Pulsed Sextupole Magnet at the Photon Factory Storage Ring** – *H. Takaki, N. Nakamura (ISSP/SRL) K. Harada, T. Honda, Y. Kobayashi, T. Miyajima, S. Nagahashi, T. Obina, M. Shimada, A. Ueda (KEK) S. Matsuba (Hiroshima University, Graduate School of Science)*
- TU6RFP046 **A New Single-Lens Shaper Design with Diffraction Suppression Consideration** – *C. Liu (CASA) C. Liu (PKU/IHIP) S. Zhang (JLAB)*
- TU6RFP047 **Demonstration and Optimization of a Drive Laser for an X-Band Photoinjector** – *D.J. Gibson, S.G. Anderson, C.P.J. Barty, S.M. Betts, F.V. Hartemann, M. J. Messerly, H.H. Phan, M. Shverdin, C. Siders (LLNL)*
- TU6RFP048 **Upgrade of the FRIB Prototype Injector for Liquid Lithium Film Testing** – *S.A. Kondrashov, A. Barcikowski, Y. Momozaki, B. Mustapha, J.A. Nolen, P.N. Ostroumov, B. Reed, R.H. Scott (ANL)*
- TU6RFP049 **The Wire Technology for Magnetic Shield Fabrication** – *V.S. Avagyan (CANDLE) I.A. Pribitko (ChSTU)*
- TU6RFP050 **Monitoring the FLASH Cryomodule Transportation from DESY Hamburg to CEA Saclay: Coupler Contact, Vacuum, Acceleration and Vibration Analysis** – *M.W. McGee (Fermilab) R. Amirikas, M. Boehnert, C. Engling, D. Hoppe, K. Jensch, D. Kostin, C. Mueller, H. Remde, O. Sawlanski, J. Wojtkiewicz (DESY) S. Barbanotti, A. Bosotti, M. Fusetti, P.M. Michelato (INFN/LASA) S. Berry, M. Dorlot, O. Napoly, C.G. Thomas-Madec (CEA) A. Bertolini (Albert Einstein, Leibniz Universität)*
- TU6RFP051 **Transport of DESY 1.3 GHz Cryomodule at Fermilab** – *M.W. McGee, T.T. Arkan, E. Borissov, J.R. Leibfritz, W. Schappert (Fermilab) S. Barbanotti (INFN/LASA)*
- TU6RFP052 **Transatlantic Transport of Fermilab 3.9 GHz Cryomodule to DESY** – *M.W. McGee, J. Grimm, D.R. Olis (Fermilab)*
- TU6RFP053 **Controlled Emittance Blow Up in the Tevatron** – *C.-Y. Tan, J. Steimel (Fermilab)*

- TU6RFP054 Lifetime and Polarized E-Beam Measurements in Duke Storage Ring – *J. Zhang, J. Li, C. Sun, W. Wu, Y.K. Wu (FEL/Duke University) A. Chao (SLAC) H. Xu (USTC/NSRL)***
- TU6RFP055 Measurements of the Temperature on Carbon Stripper Foils by Pulsed 650 keV H<sup>+</sup> Ion Beams – *A. Takagi, Y. Irie, I. Sugai, Y. Takeda (KEK)***
- TU6RFP056 Design and Simulation of Microstrip Directional Coupler with Tight Structure and High Directivity – *T. Hu, L. Cao, J. Huang, D. Li, B. Qin, J. Yang (HUST)***
- TU6RFP057 Status of the MICE Muon Ionization Cooling Experiment – *V.C. Palladino (INFN-Napoli)***
- TU6RFP058 Neutron Energy Spectra and Dose Equivalent Rates from Heavy-Ion Reactions below 20 MeV/u Using the PHITS Code – *Y. Iwamoto (JAEA) K. Niita (RIST) R.M. Ronningen (NSCL)***
- TU6RFP059 Experimental Studies of the ReA3 Triple-Harmonic Buncher – *Q. Zhao, V. Andreev, J. Brandon, G. Machicoane, F. Marti (NSCL)***
- TU6RFP060 Note of Some Thermal Analytical Solutions in Accelerator Engineering – *A. Sheng (NSRRCC)***
- TU6RFP061 Radiation Damage Studies with Fast Neutrons on Optical Materials – *J.E. Spencer (SLAC)***
- TU6RFP062 Radiation Damage Studies with Fast Neutrons on REPMs – *J.E. Spencer, S.D. Anderson, Z.R. Wolf (SLAC) M. Boussoufi (UCD/MNRC) D.E. Pellet (UCD)***
- TU6RFP063 The Development of a Slow-Wave Chopper Structure for Next Generation High Power Proton Drivers – *M.A. Clarke-Gayther (STFC/RAL/ISIS)***
- TU6RFP064 Coaxial Coupler for X-Band Photocathode RF Gun – *X.H. Liu, C.-X. Tang (TUB)***
- TU6RFP065 The MICE PID Detector Systems – *L.M. Cremaldi, D.A. Sanders, D.J. Summers (UMiss)***
- TU6RFP066 Fast Tune Jump Magnets and Power Supplies – *J.W. Glenn, H. Huang, C.J. Liaw, I. Marneris, W. Meng, J.-L. Mi, P.J. Rosas, J. Sandberg, J.E. Tuozzolo, W. Zhang (BNL)***
- TU6RFP067 The Redesign, Installation and Commissioning of Light II-A Pulsed Power Generator and its Potential Application – *C. Wang, X.D. Jiang, S.M. Wei, N.G. Zeng, T.J. Zhang (CIAE) J.Z. Wang (Department of Physics, Central China Normal University)***
- TU6RFP068 Development of the Prototype Module of the 6MV/10MA Z-Pinch Test Stand – *H.T. Li (CAEP/IPF)***

- TU6RFP069 **Development of a Prototype Kicker Magnet for CSNS/RCS Extraction** – *W. Kang, Y. Hao, L.H. Huo, J.X. Song, L. Wang (IHEP Beijing)*
- TU6RFP070 **A Prototype of Pulsed Power Supply for CSNS/RCS Injection Painting Bump Magnets** – *L. Shen, Y.L. Chi, C. Huang (IHEP Beijing)*
- TU6RFP071 **Development of a Prototype Bump Magnet for CSNS/RCS Injection** – *J.X. Song, Y. Hao, L.H. Huo, W. Kang, L. Wang (IHEP Beijing)*
- TU6RFP072 **Fast Kicker** – *A.A. Mikhailichenko (Cornell University, Department of Physics)*
- TU6RFP073 **Voltage Droop Compensation For High Power Marx Modulators** – *D. Yu, P. Chen, M. Lundquist (DULY Research Inc.)*
- TU6RFP074 **Marx Bank Technology for a Short Pulse ILC Modulator** – *M.K. Kempkes, F.O. Arntz, J.A. Casey, M.P.J. Gaudreau, I. Roth (Diversified Technologies, Inc.)*
- TU6RFP075 **Design, Testing and Operation of the Modulator for the CTF3 Tail Clipper Kicker** – *M.J. Barnes, T. Fowler, G. Ravida (CERN)*
- TU6RFP076 **Measurement of the Longitudinal and Transverse Impedance of Kicker Magnets Using the Coaxial Wire Method** – *M.J. Barnes, F. Caspers, T. Kroyer, E. Métral, F. Roncarolo, B. Salvant (CERN)*
- TU6RFP077 **Extraction Kicker Magnet Design for Main Injector** – *C.C. Jensen, R.E. Reilly, I. Terechkine (Fermilab)*
- TU6RFP078 **Extraction Kicker Pulser Design for Main Injector** – *C.C. Jensen (Fermilab)*
- TU6RFP079 **A High Voltage, High Rep-Rate, High Duty Factor Stacked Transformer Modulator** – *G.W. Saewert, H. Pfeffer (Fermilab)*
- TU6RFP080 **Cold Cathode Thyratron Based High-Voltage Kicker System for the Duke Accelerators: Performance and Improvements** – *V. Popov, S.F. Mikhailov, P.W. Wallace (FEL/Duke University)  
O. Anchugov, Yu. Matveev, D.A. Shvedov (BINP SB RAS)*
- TU6RFP081 **Field Compensation of the Injection Septum of the JPARC Main Ring Injection System** – *K. Fan (KEK)*
- TU6RFP082 **Tests and Operational Experience with the DAFNE Stripline Injection Kicker** – *F. Marcellini, D. Alesini, S. Guiducci, P. Raimondi (INFN/LNF)*
- TU6RFP083 **Measurement Results of the Characteristic of the Pulse Power Supply for the Injection Bump System in J-PARC 3-GeV RCS** – *T. Takayanagi, Y. Irie, J. Kamiya, M. Kinsho, T. Togashi, T. Ueno, M. Watanabe, M. Yoshimoto (JAEA/J-PARC)*

- TU6RFP084 **Fast Disconnect Switch for ALS Storage Ring RF System High Voltage Power Supply – S. Kwiatkowski, K.M. Baptiste, J. Julian (BNL)**
- TU6RFP085 **The Electron Accelerator Based on the Magnetron Gun – V. Zakutin, A.N. Dovbnya, N.G. Reshetnyak (NSC/KIPT)**
- TU6RFP086 **A Macro-Pulsed 1.2 MW Proton Beam for the PSI Ultra Cold Neutron Source – D. Reggiani, M. Daum, P.-A. Duperrex, G. Dzieglewski, U.P. Frei, T. Korhonen, A.C. Mezger, U. Muller, U. Rohrer (PSI)**
- TU6RFP087 **Development of High Stability Klystron-Modulator System for PLS-II 3.0-GeV Electron Linac – S.S. Park, S.H. Kim, S.-C. Kim, S.H. Nam, Y. G. Son, J.-H. Suh (PAL)**
- TU6RFP088 **Design of Dual Gun System for the PLS-II Linear Accelerator – Y. G. Son, K.R. Kim, S.H. Nam, S.J. Park (PAL)**
- TU6RFP089 **Resonant Kicker System Development at SLAC – T.G. Beukers, J.W. Krzaszczak, M.H. Larrus, A.C. de Lira (SLAC)**
- TU6RFP090 **ILC Marx Modulator Development Program Status – C. Burkhardt, T.G. Beukers, M.A. Kemp, R.S. Larsen, K.J.P. Macken, M.N. Nguyen, J. Olsen, T. Tang (SLAC)**
- TU6RFP091 **Development of an Adder-Topology ILC Damping Ring Kicker Modulator – T. Tang, C. Burkhardt (SLAC)**
- TU6RFP092 **Report on a New SLAC ESB L-Band Modulator and Klystron Test Stand – C. Hast, C. Adolphsen, T.G. Beukers, C. Burkhardt, R.K. Jobe, R.S. Larsen, D.J. McCormick, B.D. McKee, M.N. Nguyen, Z.M. Szalata, T. Tang (SLAC)**
- TU6RFP093 **Redesign of the H-Bridge Switch Plate of the SNS High Voltage Converter Modulator – M.A. Kemp, C. Burkhardt, M.N. Nguyen (SLAC) D.E. Anderson (ORNL)**
- TU6RFP094 **Advanced IGBT Gate Drive for the SNS High Voltage Converter Modulator – M.N. Nguyen, C. Burkhardt, M.A. Kemp (SLAC) D.E. Anderson (ORNL)**
- TU6RFP095 **Towards a PEBB-Based Design Approach for a Marx-Topology ILC Klystron Modulator – K.J.P. Macken, T.G. Beukers, C. Burkhardt, M.A. Kemp, M.N. Nguyen, T. Tang (SLAC)**
- TU6RFP096 **A New Concept of a Fast Magnetic Kicker System: Bridged-T Network Lumped Kicker – T. Oki (Tsukuba University)**
- TU6RFP097 **A MOSFET Solid-State Modulator for Fast Kicker in NSRL – Y.C. Xu, H. Hao, D.H. He, X.Q. Wang (USTC/NSRL)**

**WE5PF — Morning Poster Session**  
*Radio Frequency Systems T06, T07, T25*

- WE5PFP001 The Effects of Field Emitted Electrons on RF Surface – A. Zarrebini, M. Ristic (Imperial College of Science and Technology) A. Kurup, K.R. Long, J.K. Pozimski (Imperial College of Science and Technology, Department of Physics) R. Seviour (Cockcroft Institute, Lancaster University)**
- WE5PFP002 Impedance Measurements of MA Loaded RF Cavities in J-PARC Synchrotrons – M. Nomura, K. Hasegawa, A. Schnase, T. Shimada, H. Suzuki, F. Tamura, M. Yamamoto (JAEA/J-PARC) E. Ezura, K. Hara, C. Ohmori, M. Toda, M. Yoshii (KEK)**
- WE5PFP003 Higher Harmonic Voltages in J-PARC RCS Operation – A. Schnase, M. Nomura, F. Tamura, M. Yamamoto (JAEA/J-PARC) E. Ezura (KEK) K. Hara, K. Hasegawa, C. Ohmori, T. Shimada, H. Suzuki, M. Toda, M. Yoshii (KEK/JAEA)**
- WE5PFP004 Titanium Nitride Coating as a Multipactor Suppressor on RF Coupler Ceramic Windows – W. Kaabi, H. Jenhani, A. Variola (LAL) G. Keppel, V. Palmieri (INFN/LNL)**
- WE5PFP005 The Normal Conducting RF Cavity for the MICE Experiment – D. Li, A.J. DeMello, S.P. Virostek, M.S. Zisman (LBNL)**
- WE5PFP006 Gridded-Wire Windows for High Pressure RF Cavities – M. Alsharo'a, R.P. Johnson (Muons, Inc) M. Gosz, D.M. Kaplan, S. Nair (Illinois Institute of Technology) A. Moretti (Fermilab)**
- WE5PFP007 Building Twisted Waveguide Accelerating Structures – Y.W. Kang (ORNL) M.H. Awida, J.L. Wilson (University of Tennessee)**
- WE5PFP008 RF Breakdown of Metallic Surfaces in Hydrogen at 805 MHz – M. BastaniNejad, A.A. Elmoustafa (Old Dominion University) M. Alsharo'a, R.P. Johnson, M.L. Neubauer, R. Sah (Muons, Inc) J.M. Byrd, D. Li (LBNL) M. Chung, M. Hu, A. Jansson, A. Moretti, M. Popovic, A.V. Tollestrup, K. Yonehara (Fermilab) D. Rose (Voss Scientific)**
- WE5PFP009 RF Breakdown Studies Using Pressurized Cavities – M. BastaniNejad, A.A. Elmoustafa (Old Dominion University) J.M. Byrd, D. Li (LBNL) R.P. Johnson, M.L. Neubauer, R. Sah (Muons, Inc)**
- WE5PFP010 L-Band (700 MHz) High-Power Ferroelectric Switch/Phase Shifter – S.V. Shchelkunov, J.L. Hirshfield (Omega-P, Inc.) S. Kazakov (KEK) V.P. Yakovlev (Fermilab)**
- WE5PFP011 PAMELA: Development of the RF System for a Non-Relativistic Non-Scaling FFAG – T. Yokoi, J.H. Cobb, H. Witte (OXFORDphysics) M. Aslaninejad, J. Pasternak, J.K. Pozimski (Imperial College of Science and Technology, Department**

*of Physics) R.J. Barlow (UMAN) C.D. Beard, P.A. McIntosh, S.L. Smith (STFC/DL/ASTeC) R.J.L. Fenning (Brunel University) I.S.K. Gardner (STFC/RAL/ISIS) D.J. Kelliher, S. Machida (STFC/RAL/ASTeC) K.J. Peach, S.L. Sheehy (JAI) R. Seviour (Cockcroft Institute, Lancaster University) S.C. Tygier (Manchester University) B. Vojnovic (Gray Cancer Institute)*

- WE5PFP012 RF Deflector for Bunch Length Measurement at Low Energy at PSI – A. Falone, M. Bopp, H. Fitze, Y. Kim, M. Pedrozzi, V. Schlott, L. Stingelin (PSI) D. Alesini, A. Clozza, L. Ficcadenti, L. Palumbo (INFN/LNF)**
- WE5PFP013 Development of Solid Freeform Fabrication (SFF) for the Production of RF Photoinjectors – P. Frigola, R.B. Agustsson, S. Boucher, A.Y. Murokh (RadiaBeam) H. Badakov, P. Musumeci, J.B. Rosenzweig, G. Travish (UCLA) D. Cormier, T. Mahale (NCSU) L. Faillace (INFN/LNF)**
- WE5PFP014 Development and Fabrication of X-Band Deflecting Cavity at 11.424 GHz – A.Y. Murokh, R.B. Agustsson, P. Frigola, E. Spranza (RadiaBeam) D. Alesini (INFN/LNF) J.B. Rosenzweig (UCLA) V. Yakimenko (BNL)**
- WE5PFP015 Upgrade of the RF System of Siberia-2 Electron Storage Ring / SR Source – I.K. Sedlyarov, V.S. Arbuzov, E.I. Gorniker, A.A. Kondakov, S.A. Krutikhin, I.V. Kuptsov, G.Y. Kurkin, S.V. Motygin, V.M. Petrov, A.M. Pilan, A.G. Tribendis, N. Vinokurov (BINP SB RAS) V. Korchuganov (RRC)**
- WE5PFP016 Shunt Impedance of SAMEER 6 MeV Linac Structure – T.S. Dixit, A. Deshpande, V.C. Hatode, R. Krishnan, C.S. Nainwad (SAMEER)**
- WE5PFP017 Processing and Breakdown Localization Results for an L-Band Standing-Wave Cavity – F. Wang, C. Adolphsen (SLAC)**
- WE5PFP018 Results from the CLIC X-Band Structure Test Program at NLCTA – C. Adolphsen, G.B. Bowden, V.A. Dolgashev, L. Laurent, S.G. Tantawi, F. Wang, J.W. Wang (SLAC) S. Doeberl, A. Grudiev, G. Riddone, W. Wuensch, R. Zennaro (CERN) Y. Higashi, T. Higo (KEK)**
- WE5PFP019 Coupler Development and Processing Facility at SLAC – C. Adolphsen, A.A. Haase, D. Kiehl, C.D. Nantista, T.N. Nieland, J. Tice, F. Wang (SLAC)**
- WE5PFP020 Multipacting and Dark Current Simulation for Muon Collider Cavity – L. Ge, K. Ko, Z. Li, C.-K. Ng (SLAC) D. Li (LBNL) R. B. Palmer (BNL)**
- WE5PFP021 Klystron Cluster Scheme for ILC High Power RF Distribution – C.D. Nantista, C. Adolphsen (SLAC)**

- WE5PFP022 **Progress of the S-Band RF Systems of the FERMI@Elettra Linac – A. Fabris**, A.O. Borga, G. D'Auria, P. Delgiusto, O. Ferrando, A. Franceschinis, F. Gelmetti, M.M. Milloch, A. Milocco, G.C. Pappas, F. Pribaz, A. Rohlev, C. Serpico, N. Sodomaco, R. Umer, L. Veljak, D. Wang (*ELETTRA*)
- WE5PFP023 **The 3pi/4 Backward TW Structure for the FERMI@Elettra Linac – C. Serpico**, P. Craievich (*ELETTRA*)
- WE5PFP024 **Optimal Timing for Spark Recovery in the TRIUMF Cyclotron – K. Fong** (*TRIUMF*)
- WE5PFP025 **Numerical Calculus of Resonant Frequency Change by 3D Reconstruction of Thermal Deformed Accelerator Tube – Z. Shu**, M.J. Li, L.G. Shen, Y. Sun, X.C. Wang, W. Zhao (*USTC/PMPI*) Y.J. Pei (*USTC/NSRL*)
- WE5PFP026 **Preliminary Design for the Third Harmonic Cavity of Hefei Advanced Light Source – C.-F. Wu**, S. Dong, G. Feng, X.D. He, W. Li, G. Liu, L. Wang, S.C. Zhang (*USTC/NSRL*) Z.P. Li (*USTC*)
- WE5PFP027 **Active Quasi-Optical Ka-Band RF Pulse Compressor – O.A. Ivanov**, A.M. Gorbachev, V.A. Isaev, A.A. Vikharev, A.L. Vikharev (*IAP/RAS*) J.L. Hirshfield (*Yale University, Physics Department*) M.A. LaPointe (*Yale University, Beam Physics Laboratory*)
- WE5PFP028 **Using Cerenkov Light to Detect Field Emission in Superconducting Cavities – Y. Torun** (*IIT*)
- WE5PFP029 **RF Power Coupler Development for Superconducting Spoke Cavities at Nuclear Physics Institute in Orsay – E. Rampoux**, S. Berthelot, P. Blache, S. Bousson, D. Grolet, J. Lesrel, L. Lukovac, G. Olry (*IPN*)
- WE5PFP030 **Simplification of the End Group Geometry for 1.3 GHz SC Accelerating Structures – P.M. Michelato**, L. Monaco, C. Paganini, N. Panzeri (*INFN/LASA*)
- WE5PFP031 **Development of an Acceptance Test Procedure for the XFEL SC Cavities Tuners – R. Paparella**, A. Bosotti (*INFN/LASA*) C. Albrecht, L. Lilje (*DESY*)
- WE5PFP032 **Cold Testing and Recent Results of the Blade Tuner for CM2 at FNAL – R. Paparella**, A. Bosotti, C. Pagani, N. Panzeri (*INFN/LASA*) J. Knobloch, O. Kugeler, A. Neumann (*BESSY GmbH*)
- WE5PFP033 **Fabrication Experience of the Third Harmonic Superconducting Cavity Prototypes for the XFEL – P. Pierini**, A. Bosotti, R. Paparella, D. Sertore (*INFN/LASA*) E. Vogel (*DESY*)
- WE5PFP034 **Low Beta Elliptical Cavities for Pulsed and cw Operation – P. Pierini**, S. Barbanotti, A. Bosotti, P.M. Michelato, L. Monaco, R. Paparella (*INFN/LASA*)

- WE5PFP035 **Prototyping PEFP Low-Beta Copper Cavity – S. An, Y.-S. Cho, B.H. Choi, Y.M. Li, Y.Z. Tang, L. Zhang (KAERI)**
- WE5PFP036 **Full Temperature Mapping System for Standard 1.3 GHz 9-cell Elliptical SRF Cavities – T. Tajima, A.S. Bhatty, A. Canabal, G.V. Eremeev, F.L. Krawczyk (LANL)**
- WE5PFP037 **SRF Cavity High-Gradient Study at 805 MHz for Proton and Other Applications – T. Tajima, A.S. Bhatty, G.V. Eremeev, F.L. Krawczyk, R.J. Roybal (LANL)**
- WE5PFP038 **Studies on the Effect of Coating Nb with Thin Layers of Another Superconductor such as NbN and MgB2 – T. Tajima, A. Canabal, G.V. Eremeev (LANL) I.E. Campisi (ORNL) V.A. Dolgashev, S.G. Tantawi (SLAC) X. Xi (Penn State University)**
- WE5PFP039 **Development of a Superconducting Half Wave Resonator for Beta = 0.53 – J. Popielarski, S. Bricker, C. Compton, W. Hartung, M. J. Johnson, F. Marti, J. Oliva, R.C. York (NSCL)**
- WE5PFP040 **SRF Activities for ILC at MHI – K. Sennyu, H. Hara, K. Kanaoka, T. Yanagisawa (Mitsubishi Heavy Industries,,Ltd, MHI) M. Matsuoka (MHI)**
- WE5PFP041 **1500 MHz Passive SRF Cavity for Bunch Lengthening in the NSLS-II Storage Ring – T. Yanagisawa (Mitsubishi Heavy Industries,,Ltd, MHI) T.L. Grimm (Niowave, Inc.) J. Rose (BNL)**
- WE5PFP042 **Rugged Ceramic Window for RF Applications – M.L. Neubauer, R.P. Johnson (Muons, Inc) T. Elliott, R.A. Rimmer (JLAB)**
- WE5PFP043 **Beam Pipe HOM Absorber for 750 MHz RF Cavity – M.L. Neubauer, R. Sah (Muons, Inc) E.P. Chojnacki, M. Liepe (CLASSE) H. Padamsee (Cornell University)**
- WE5PFP044 **High Power Co-Axial SRF Coupler – M.L. Neubauer (Muons, Inc) R.A. Rimmer (JLAB)**
- WE5PFP045 **Experimental Studies of Capacitive Power Coupler for SRF Accelerators – F.S. He, J.K. Hao, F. Wang, W. Xu, B.C. Zhang, K. Zhao (PKU/IHIP)**
- WE5PFP046 **Multipacting and Dark Current Simulation for High Gradient Accelerator Structures – Z. Li, A.E. Candel, L. Ge, K. Ko, C.-K. Ng, G.L. Schussman (SLAC) A. Grudiev, W. Wuensch (CERN) T. Higo (KEK)**
- WE5PFP047 **A Compact Alternative Crab Cavity Design at 400 MHz for the LHC Upgrade – Z. Li, L. Xiao (SLAC)**
- WE5PFP048 **800MHz LHC Crab Cavity Conceptual Design – L. Xiao, Z. Li, C.-K. Ng, A. Seryi (SLAC)**

- WE5PFP049 **Phase Control Testing of Two Superconducting Cavities in a Vertical Cryostat – *P. Goudket, R. Bate, C.D. Beard, B.D. Fell, P.A. McIntosh, S.M. Pattalwar (STFC/DL/ASTeC) P. K. Ambattu, G. Burt, A.C. Dexter, B.D.S. Hall, M.I. Tahir (Cockcroft Institute, Lancaster University)***
- WE5PFP050 **Assembly of the ERL International Cryomodule (ERIC) at Daresbury Laboratory – *P.A. McIntosh, R. Bate, C.D. Beard, S.M. Pattalwar (STFC/DL/ASTeC) A. Buechner, F.G. Gabriel (FZD) M.A. Cordwell, J. Strachan (STFC/DL) J.N. Corlett, D. Li, S.M. Lidia (BNL) M. Liepe, H. Padamsee (CLASSE) T.I. Smith (Stanford University)***
- WE5PFP051 **RF System for SSRF Storage Ring – *J.F. Liu, M. Chen, Z.Q. Feng, H.T. Hou, C. Luo, D.Q. Mao, Zh.G. Zhang, S.J. Zhao, Y.B. Zhao (SINAP)***
- WE5PFP052 **First Cold Test with the TRIUMF ISAC-II Phase II Cryomodule – *R.E. Laxdal, K. Fong, A. Grassellino, W.R. Rawnsley, I. Sekachev, V. Zvyagintsev (TRIUMF)***
- WE5PFP053 **Design of Superconducting Parallel Bar Deflecting and Crabbing RF Structures – *J.R. Delayen, H. Wang (JLAB) J.R. Delayen (ODU)***
- WE5PFP054 **HOM Survey of the First CEBAF Upgrade Style Cavity Pair – *F. Marhauser, E. Daly, G.K. Davis, M. A. Drury, C. Grenoble, J. Hogan, J.P. Preble, C.E. Reece, R.A. Rimmer, K. Tian, H. Wang (JLAB)***
- WE5PFP055 **Improved Performance of JLab 7-Cell Cavities by Electropolishing – *C.E. Reece, A.C. Crawford, R.L. Geng (JLAB)***
- WE5PFP056 **A Family of L-Band SRF Cavities for High Power Proton Driver Applications – *R.A. Rimmer, F. Marhauser (JLAB)***
- WE5PFP057 **Integrated Surface Topography Characterization of Variously Polished Niobium for Superconducting Particle Accelerators – *H. Tian, C.E. Reece (JLAB) M.J. Kelley, H. Tian (The College of William and Mary)***
- WE5PFP058 **Basic Electropolishing Process Research and Development in Support of Improved Performance of SRF Cavities for Future Accelerators – *H. Tian, C.E. Reece (JLAB) M.J. Kelley, H. Tian (The College of William and Mary)***
- WE5PFP059 **Design, Prototype and Measurement of APS Single-Cell Crab Cavity – *H. Wang, G. Cheng, G. Ciovati, P. Kneisel, R.A. Rimmer, L. Turlington (JLAB) A. Nassiri, G.J. Waldschmidt (ANL)***
- WE5PFP060 **Buffered Electropolishing – A New Way for Achieving Extremely Smooth Surface Finish on Nb SRF Cavities to be**

**Used in Particle Accelerators – A.T. Wu, G. Ciovati, A.C. Crawford, R. Manus, H.L. Phillips, C.E. Reece, R.A. Rimmer, W. Sommer, J.S. Williams (JLAB) F. Eozénou (CEA) X.Y. Lu (PKU/IHIP) J. Mammosser (ORNL)**

- WE5PFP061 Commissioning of the SRF Surface Impedance Characterization System at Jefferson Lab – B. Xiao, R.L. Geng, F. Marhauser, H.L. Phillips, C.E. Reece, H. Wang (JLAB) M.J. Kelley (The College of William and Mary)**
- WE5PFP062 Surface Analysis of "Hotspot" Regions from a Single Cell SRF Cavity – X. Zhao, G. Ciovati, P. Kneisel, C.E. Reece, A.T. Wu (JLAB)**
- WE5PFP063 Medium Field Q-Slope Studies in Superconducting Cavities – A. Grassellino (University of Pennsylvania) K. Fong, R.E. Laxdal, V. Zvyagintsev (TRIUMF) W. Trischuk (University of Toronto)**
- WE5PFP064 Cavity Load Impedance Diagnostic at the Australian Synchrotron – R.T. Dowd, K. Zingre (ASCo)**
- WE5PFP065 Development of RF System Model for CERN Linac2 Tanks – G. Joshi (BARC) V. Agarwal, G. Kumar (Indian Institute of Technology Bombay) M. Vretenar (CERN)**
- WE5PFP066 Low-Level Radio Frequency Control Development for the National Synchrotron Light Source II – H. Ma, J. Rose (BNL)**
- WE5PFP067 The ERL Cold Emissions Test and the Low Level RF System Results – C. Schultheiss, A. Burrill, C. Pai, A. Zaltsman (BNL)**
- WE5PFP068 Design of a Linear-Quadratic-Gaussian Controller for a Single-Cavity Rigid-Bunch RF System – N.A. Towne, H. Ma, J. Rose (BNL)**
- WE5PFP069 Alternative Cavity Tuning Control for CRM Cyclotron – P.Z. Li, K. Fei, S.G. Hou, B. Ji, L. Xia, Z.G. Yin, T.J. Zhang (CIAE)**
- WE5PFP070 Modelling and Simulation of the RF System for SPIRAL2 – O. Piquet, M. Luong (CEA)**
- WE5PFP071 Transient Analysis of RF Cavities under Beam Loading – H. Hassanzadegan, R. Grino (UPC) D. Einfeld (ALBA)**
- WE5PFP072 A Modular Digital LLRF Control System for Normal as well as Superconducting RF Accelerators – N. Pupeter, B. A. Aminov, F. Aminova, A. Borisov, M. Getta, W. Jalmuzna, T. Jezynski, S. Kolesov, H. Piel, D. Wehler (CRE) S. Simrock (DESY)**
- WE5PFP073 Demonstration of an ATCA Based LLRF Control System at FLASH – S. Simrock, M.K. Grecki, T. Jezynski, W. Koprek (DESY) K. Czuba (Warsaw University of Technology, Institute of Electronic Systems) G.W. Jablonski, W. Jalmuzna, D.R. Makowski, A. Piotrowski (TUL-DMCS)**

- WE5PFP074 **First Beam Commissioning of the 400 MHz LHC RF System – A.C. Butterworth, M. E. Angloletta, L. Arnaudon, P. Baudrenghien, T. Bohl, O. Brunner, E. Ciapala, F. Dubouchet, W. Höfle, T.P.R. Linnekar, P. Maesen, J.C. Molendijk, E.N. Shaposhnikova, J. Tuckmantel, D. Valuch, U. Wehrle, F. Weierud (CERN)**
- WE5PFP075 **A New CERN PS Transverse Damper – A. Blas, J.M. Bellemans, E. Benedetto, F. Caspers, D.C. Glenat, R. Louwerse, M. Martini, E. Métral, V. Rossi, J.P.H. Sladen (CERN)**
- WE5PFP076 **General Purpose Digital Signal Processing VME-Module for 1-Turn Delay Feedback Systems of the CERN Accelerator Chain – V. Rossi (CERN)**
- WE5PFP077 **Analysis of DESY-FLASH LLRF Measurements for the ILC Heavy Beam Loading Test – G.I. Cancelo, B. Chase, M.A. Davidsaver (Fermilab) V. Ayvazyan, S. Simrock (DESY) J. Carwardine (ANL) T. Matsumoto, S. Michizono (KEK)**
- WE5PFP078 **Development of SCRF Cavity Resonance Control Algorithms at Fermilab – Y.M. Pischalnikov, R.H. Carcagno, D.F. Orris, W. Schappert (Fermilab)**
- WE5PFP079 **Development of a Digital System Damping Longitudinal Quadrupole Oscillations – M. Mehler, H. Klingbeil, M. Kumm, U. Laier, K.-P. Ningel (GSI)**
- WE5PFP080 **The Intelligent Gate Control for the Induction Acceleration System in the KEK Digital Accelerator – T. Iwashita, T. Adachi, Y. Arakida, H. Someya, K. Takayama, M. Wake (KEK)**
- WE5PFP081 **Digital Low-Level RF Control System with Four Intermediate Frequencies at STF – T. Matsumoto, S. Fukuda, H. Katagiri, S. Michizono, T. Miura, Y. Yano (KEK) Y. Okada (NETS)**
- WE5PFP082 **Evaluation of Digital Feedback Control at 972 MHz rf System in J-PARC Linac – S. Michizono, Z. Fang, T. Matsumoto, S. Yamaguchi (KEK) T. Kobayashi (JAEA/J-PARC) Y. Okada (NETS)**
- WE5PFP083 **Vector-Sum Control of Superconducting rf Cavities at STF – S. Michizono, S. Fukuda, T. Matsumoto, T. Miura, Y. Yano (KEK) Y. Okada (NETS)**
- WE5PFP084 **LLRF Feedback Control Stability at STF – T. Miura, S. Fukuda, H. Katagiri, T. Matsumoto, S. Michizono, Y. Yano (KEK) Y. Okada (NETS)**
- WE5PFP085 **The Arithmetic Study of the Prototype Digital LLRF for CSNS Linac – Z.C. Mu (Institute of High Energy Physics, CAS) S. Fu, J. Li, X.A. Xu (IHEP Beijing)**
- WE5PFP086 **Evaluation of the Analog and Digital Receiver Section in the Libera LLRF System – B.B. Baricevic, C.J. Bocchetta, R. Cerne, Z. Lestan, U. Mavric, B. Repic (Instrumentation Technologies)**

- WE5PFP087 **Automatic Frequency Matching for Cavity Warming-up in J-PARC Linac Digital LLRF Control – *T. Kobayashi* (JAEA/J-PARC) *S. Anami, Z. Fang, S. Michizono, S. Yamaguchi (KEK) H. Suzuki (JAEA)***
- WE5PFP088 **Direct Sampling of rf Signal for 1.3 GHz Cavity – *Y. Okada* (NETS) *S. Fukuda, H. Katagiri, T. Matsumoto, S. Michizono, T. Miura, Y. Yano (KEK)***
- WE5PFP089 **Study of Direct RF Feedback with the Pedersen Model – *L.-H. Chang, M.-C. Lin, Y.-H. Lin, C.H. Lo, Ch. Wang, M.-S. Yeh* (NSRRC)**
- WE5PFP090 **Energy Saving for Booster RF System in NSRRC – *M.-S. Yeh* (NSRRC)**
- WE5PFP091 **Status of the Spallation Neutron Source Prototype Accumulator Ring LLRF System – *M.T. Crofford* (ORNL)**
- WE5PFP092 **SNS LLRF Control System Temperature Sensitivity Characterization – *M.F. Piller, M.T. Crofford, T.W. Hardek* (ORNL) *J.A. Ball, T.L. Davidson, S.L. Jones (ORNL RAD)***
- WE5PFP093 **High Intensity Beam Performance of the SNS Accumulator Ring LLRF Control System – *M.F. Piller, M.T. Crofford, T.W. Hardek (ORNL) K. Smith (BNL)***
- WE5PFP094 **Phase Amplitude Detection (PAD) and Phase Amplitude Control (PAC) for PXFEL – *W.H. Hwang, M.-H. Chun, K.M. Ha, Y.J. Han, D.T. Kim, S.H. Kim (PAL) R. Akre (SLAC)***
- WE5PFP095 **Application of Non-Linear Time-Domain RF Simulations to Longitudinal Emittance Studies for the LHC – *T. Mastorides, J.D. Fox, C.H. Rivetta, D. Van Winkle (SLAC)***
- WE5PFP096 **Damping Effect Studies for X-Band High Gradient Structures – *S. Pei, V.A. Dolgashev, Z. Li, S.G. Tantawi, J.W. Wang (SLAC)***
- WE5PFP097 **Data Analysis of LLRF Measurement with Beam Off at FLASH – *S. Pei, C. Adolphsen (SLAC) J. Carwardine (ANL) N.J. Walker (DESY)***
- WE5PFP098 **Feedback Configuration Tools for LHC Low Level RF System – *D. Van Winkle, J.D. Fox, T. Mastorides, C.H. Rivetta (SLAC) P. Baudrenghien, A.C. Butterworth, J.C. Molendijk (CERN)***
- WE5PFP099 **TRIUMF e-Linac RF Control System Design – *M.P. Laverty, K. Fong, Q. Zheng (TRIUMF)***
- WE5PFP100 **Beam Loading Effects on the RF Control Loops of a Double-Harmonic Cavity System for FAIR – *D. Lens (TU Darmstadt, RTR) P. Hülsmann, H. Klingbeil (GSI)***
- WE5PFP101 **RF System Modeling for the CEBAF Energy Upgrade – *T. E. Plawski, C. Hovater (JLAB)***

**Wednesday, May 6**

**WE5PFP102 The RF Phase Reference Distribution System Concept for the European XFEL – K. Czuba, K. Antoszkiewicz (Warsaw University of Technology, Institute of Electronic Systems) S. Simrock, H.C. Weddig (DESY)**

Wednesday, May 6 08:30 – 12:30  
Hyatt Regency Vancouver, Regency Foyer

**WE5RF — Morning Poster Session**  
*Light Sources and FELs A05, A06, T15*

- WE5RFP001 **Current Status of the Design of TPS 3 GeV Booster Synchrotron – H.C. Chao, H.-P. Chang, P.J. Chou, C.-C. Kuo, G.-H. Luo, H.-J. Tsai (NSRRC)**
- WE5RFP002 **Design Status of Transfer Lines in TPS – P.J. Chou, H.-P. Chang, C.-C. Kuo, W.T. Liu (NSRRC)**
- WE5RFP003 **Study of Transverse RF Deflecting Structures in QBA Lattice of TPS for Generation Subpicosecond Pulses – H. Ghasem, G.-H. Luo (NSRRC)**
- WE5RFP004 **Study of Errors due to Deflecting Structures in QBA Low Emittance Lattice of 3 GeV Taiwan Photon Source – H. Ghasem, G.-H. Luo (NSRRC)**
- WE5RFP005 **Bunch Lengthening in 3 GeV Taiwan Photon Source Using Harmonic Cavity – H. Ghasem (NSRRC)**
- WE5RFP006 **Progress Report of the TPS Lattice Design – C.-C. Kuo, H.-P. Chang, H.C. Chao, P.J. Chou, G.-H. Luo, A. Rusanov, H.-J. Tsai (NSRRC)**
- WE5RFP007 **Generation of Sub-Hundred Femtosecond X-Ray via Inverse Compton Scattering – N.Y. Huang, S.S. Yang (NTHU) J.H. Chen, C.S. Chou, W.K. Lau, A.P. Lee, C.C. Liang (NSRRC)**
- WE5RFP008 **Ultra-Low Vertical Emittance at the SLS – M. Boge, A. Luedke, A. Streun (PSI) ? Andersson (MAX-lab)**
- WE5RFP009 **Correction of Imperfections in the SLS Storage Ring Lattice – A. Streun, M. Boge, A. Luedke (PSI)**
- WE5RFP010 **Low-Alpha Operation of the SLS Storage Ring – D.K. Kalantaryan, G.A. Amatuni, D. Gishyan, L.M. Hovhannisyan (CANDLE) M. Boge, V. Schlott, A. Streun (PSI) S.T. Hakobyan (YSU)**
- WE5RFP011 **Characterization of MLS THz Radiation at a Dedicated Beamline – R. Muller, A. Bawagan, A. Hoehl, R. Klein, G. Ulm (PTB) J. Feikes, M.V. Hartrott, U. Schade, G. Wuestefeld (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Elektronen-Speicherring BESSY II)**
- WE5RFP012 **Analysis of the Orbit Response Matrix and Correction of Beta Function at the SAGA Light Source – Y. Iwasaki, T. Kaneyasu, S. Koda, Y. Takabayashi (SAGA) H. Ohgaki (Kyoto IAE)**
- WE5RFP013 **Linear Coupling Measurement and Control at the SAGA Light Source – Y. Iwasaki, T. Kaneyasu, S. Koda, Y. Takabayashi (SAGA)**

- WE5RFP014 **Present Status of Synchrotron Radiation Facility SAGA-LS – T. Kaneyasu, Y. Iwasaki, S. Koda, Y. Takabayashi (SAGA)**
- WE5RFP015 **Concepts for the PEP-X Light Source – R.O. Hettel, K.L.F. Bane, K.J. Bertsche, Y. Cai, V.A. Dolgashev, J.D. Fox, X. Huang, Z. Huang, T. Mastorides, C.-K. Ng, Y. Nosochkov, A. Novokhatski, T. Rabedeau, C.H. Rivetta, J.A. Safranek, J. Seeman, J. Stohr, G.V. Stupakov, S.G. Tantawi, L. Wang, M.-H. Wang, U. Wienands, L. Xiao (SLAC) I. Lindau (Stanford University) C. Pellegrini (UCLA)**
- WE5RFP016 **Short Bunch Measurements in SPEAR3 – W.J. Corbett, X. Huang (SLAC) W.X. Cheng (BNL)**
- WE5RFP017 **Prospect of an IR or THz Beamline at SSRL – X. Huang, J.A. Safranek (SLAC)**
- WE5RFP018 **Further Reduction of Beam Emittance of PEP-X Using Quadruple Bend Achromat Cell – M.-H. Wang, Y. Cai, Y. Nosochkov (SLAC)**
- WE5RFP019 **Deformation and Thermal Analysis for SSRF Septum Magnets – L. Ouyang, M. Gu, B. Liu (SINAP)**
- WE5RFP020 **Operational Advances at Elettra and its New Full Energy Injector – E. Karantzoulis, A. Carniel, S. Krecic (ELETTRA)**
- WE5RFP021 **Operation and Performance of the SOLEIL Storage Ring – J.-M. Filhol, J.C. Besson, P. Brunelle, L. Cassinari, M.-E. Couprise, J. Denard, C. Herbeaux, N. Hubert, J.-F. Lamarre, J.-P. Lavieville, P. Lebasque, M.-P. Level, A. Loulergue, P. Marchand, A. Nadji, L.S. Nadolski, R. Nagaoka, M.-A. Tordeux (SOLEIL)**
- WE5RFP022 **General Status of SESAME – A. Nadji (SOLEIL)**
- WE5RFP023 **Status of UVSOR-II and Light Source Developments – M. Adachi, K. Hayashi, M. Katoh, J. Yamazaki (UVSOR) M. Hosaka, Y. Takashima, N. Yamamoto (Nagoya University) T. Tanikawa (Sokendai)**
- WE5RFP024 **HALS: Our Future Light Source in NSRL – L. Wang, G. Feng, W. Li, L. Liu, S.C. Zhang (USTC/NSRL)**
- WE5RFP025 **The Design Consideration of Full Energy Booster of HALS – L. Wang, G. Feng, W. Li, L. Liu, S.C. Zhang (USTC/NSRL)**
- WE5RFP026 **Impedance Budget for Hefei Advanced Light Source – W. Xu, L. Wang (USTC/NSRL)**
- WE5RFP027 **Simulation of Hefei Advanced Light Source (HALS) Injection System – S.C. Zhang (USTC/NSRL)**
- WE5RFP028 **Coherent Soft X-Ray Generation in the Water Window with the EEHG Scheme – D. Xiang, G.V. Stupakov (SLAC) W.M. Fawley (LBNL)**

- WE5RFP029 **Full Electromagnetic Simulation of Free-Electron Laser Amplifier Physics via the Lorentz-Boosted Frame Approach – W.M. Fawley, J.-L. Vay (BNL)**
- WE5RFP030 **Development of a Precision Tunable Gamma-Ray Source Driven by a Compact X-Band Linac – F.V. Hartemann, F. Albert, S.G. Anderson, C.P.J. Barty, D.J. Gibson, M. J. Messerly, M. Shverdin, C. Siders (LLNL) V. A. Semenov (UCB)**
- WE5RFP031 **Dynamics of Seeded Free Electron Laser Harmonic Cascades – W. Graves (MIT)**
- WE5RFP032 **Design of the Wisconsin FEL Seeded Soft X-Ray FEL Undulator Lines – W. Graves, F.X. Kaertner, D.E. Moncton (MIT) J. Bisognano, M. Bissen, R.A. Bosch, M.A. Green, K. Jacobs, K. J. Kleman, R.A. Legg, R. Reininger (UW-Madison/SRC)**
- WE5RFP033 **Consideration for NILPRP Free Electron Laser Project – F. Scarlat, E.S. Badita, G. Georgescu, R. Medianu, E. Mitru, M. Oane, A.M. Scarsioreanu (INFLPR) V. Babin, E. Carstea, I. S. Dontu, S. Miclos, C. M. Radu, E. Ristici, M.I. Rusu, D. Savastru, M. Tautan (Mustata) (INOE 2000) A. Dafinei, M.R. Leonovici (Bucharest University, Faculty of Physics)**
- WE5RFP034 **Drive Laser System for the NSRRC Photoinjector – C.S. Chou, W.K. Lau, A.P. Lee, C.C. Liang (NSRRC) N.Y. Huang, W.K. Luo (NTHU)**
- WE5RFP035 **Desktop, 20-MW Superradiance FEL at THz Frequencies – Y.-C. Huang, C.H. Chen (NTHU) W.K. Lau (NSRRC)**
- WE5RFP036 **The PKU Terahertz Facility at Peking University – K. Yu, S.W. Quan, W. Xu, K. Zhao, F. Zhu, J. Zhuang (PKU/IHIP)**
- WE5RFP037 **A Simple Longitudinal Phase Space Diagnostic – K.J. Bertsche, P. Emma (SLAC) O.A. Shevchenko (BINP SB RAS)**
- WE5RFP038 **Improving Beam Stability in the LCLS Linac – F.-J. Decker, R. Akre, A. Brachmann, W.S. Colocho, Y.T. Ding, D. Dowell, P. Emma, J.C. Frisch, A. Gilevich, G.R. Hays, P. Hering, Z. Huang, R.H. Iverson, K.D. Kotturi, A. Krasnykh, H. Loos, A. Miahnahri, H.-D. Nuhn, D.F. Ratner, J.L. Turner, J.J. Welch, W.E. White, J. Wu (SLAC)**
- WE5RFP039 **Characterisation and Reduction of Transverse RF Kicks in the LCLS Linac – F.-J. Decker, R. Akre, K.J. Bertsche, A. Brachmann, W.S. Colocho, Y.T. Ding, D. Dowell, P. Emma, J.C. Frisch, A. Gilevich, G.R. Hays, P. Hering, Z. Huang, R.H. Iverson, A. Krasnykh, H. Loos, H.-D. Nuhn, D.F. Ratner, H. Smith, J.L. Turner, J.J. Welch, W.E. White, J. Wu (SLAC)**
- WE5RFP040 **Start-to-End Simulations of the LCLS Accelerator and FEL Performance at Very Low Charge – Y.T. Ding, A. Brachmann, F.-J. Decker, D. Dowell, P. Emma, J.C. Frisch, A. Gilevich, G.R. Hays, P. Hering, Z. Huang, R.H. Iverson, H. Loos, A. Miahnahri,**

*H.-D. Nuhn, D.F. Ratner, J.L. Turner, J.J. Welch, W.E. White, J. Wu (SLAC) C. Pellegrini (UCLA)*

- WE5RFP041 First Results of the LCLS Laser-Heater System – *P. Emma, R.F. Boyce, A. Brachmann, R. Carr, F.-J. Decker, Y.T. Ding, D. Dowell, S.A. Edstrom, J.C. Frisch, A. Gilevich, G.R. Hays, P. Hering, Z. Huang, R.H. Iverson, Yu.I. Levashov, H. Loos, A. Miahnahri, H.-D. Nuhn, B.D. Poling, D.F. Ratner, J.L. Turner, J.J. Welch, W.E. White, Z.R. Wolf, J. Wu (SLAC)***
- WE5RFP042 Polarization Analysis of Nonlinear Harmonic Radiation in a Crossed-Planar Undulator – *H. Geng, Y.T. Ding, Z. Huang (SLAC) H. Geng (USTC/NSRL)***
- WE5RFP043 Optics Design for a Soft X-Ray FEL at the SLAC A-Line – *H. Geng, Y.T. Ding, P. Emma, Z. Huang, Y. Nosochkov, M. Woodley (SLAC)***
- WE5RFP044 Tolerance Study for the Echo-Enabled Harmonic Generation Free Electron Laser – *D. Xiang, G.V. Stupakov (SLAC)***
- WE5RFP045 Microbunching Instability in Velocity Bunching – *D. Xiang, J. Wu (SLAC)***
- WE5RFP046 Peak Current, Energy, and Trajectory Regulation and Feedback for the LCLS Electron Bunch – *J. Wu, R. Akre, A. Brachmann, P. Chu, F.-J. Decker, Y.T. Ding, D. Dowell, S.A. Edstrom, P. Emma, D. Fairley, J.C. Frisch, A. Gilevich, G.R. Hays, P. Hering, Z. Huang, R.H. Iverson, H. Loos, A. Miahnahri, H.-D. Nuhn, D.F. Ratner, J.L. Turner, J.J. Welch, W.E. White (SLAC)***
- WE5RFP047 Simulations of a Recirculating Superconducting FEL Driver – *P.H. Williams, D. Angal-Kalinin, J.K. Jones, B.D. Muratori (STFC/DL/ASTeC) H.L. Owen (UMAN)***
- WE5RFP048 The Use of Phase Shifters for Optimizing Free Electron Lasers – *E. Allaria (ELETTRA) G. De Ninno (University of Nova Gorica)***
- WE5RFP049 Extending the FERMI FEL2 towards Shortest Wavelengths – *E. Allaria (ELETTRA) G. De Ninno (University of Nova Gorica)***
- WE5RFP050 The X-Band System for the FERMI@ELETTRA FEL Project – *G. D'Auria (ELETTRA)***
- WE5RFP051 Dark Current Suppression at XFEL/SPring-8 by Using the Combination of Sextupole Magnets with a Small Magnetic Chicane – *H. Tanaka, T. Hara, H. Kitamura, N. Kumagai, K. Togawa (RIKEN/SPring-8)***
- WE5RFP052 Development of Accelerator Based THz Sources at Tohoku University – *H. Hama, F. Hinode, M. Kawai, K. Nanbu, M. Yasuda (Tohoku University, School of Science)***

- WE5RFP053 **Temporal Shaping of UV Laser with alpha-BBO Serials – L.X. Yan, Q. Du, Y.-C. Du, Hua, J.F. Hua, W.-H. Huang, R.K. Li, C.-X. Tang (TUB)**
- WE5RFP054 **Single Spike Radiation Production and Diagnostic at SPARC – V. Petrillo (Universita' degli Studi di Milano) A. Bacci, S. Cialdi, L. Serafini (Istituto Nazionale di Fisica Nucleare) M. Boscolo, M. Ferrario, C. Vaccarezza (INFN/LNF) L. Giannessi, C. Ronsivalle (ENEA C.R. Frascati) L. Palumbo (Rome University La Sapienza) M. Serluca (INFN-Roma)**
- WE5RFP055 **Helical Microbunching of a Relativistic Electron Bunch – E. Hemsing, A. Marinelli, P. Musumeci, J.B. Rosenzweig, R. Tikhoplav (UCLA) A. Gover (University of Tel-Aviv, Faculty of Engineering) S. Reiche (PSI)**
- WE5RFP056 **Long Path Length Experimental Study of the Propagation of Longitudinal Space Charge Waves in the University of Maryland Electron Ring – J.C.T. Thangaraj, B.L. Beaudoin, S. Bernal, M. Cornacchia, D.W. Feldman, I. Haber, R.A. Kishek, P.G. O'Shea, M. Reiser, D.F. Sutter (UMD)**
- WE5RFP057 **Microbunching Gain of the Wisconsin FEL Beam Spreader – R.A. Bosch, K. J. Kleman (UW-Madison/SRC) J. Wu (SLAC)**
- WE5RFP058 **Single-Stage Bunch Compression for the Wisconsin FEL – R.A. Bosch, K. J. Kleman (UW-Madison/SRC) J. Wu (SLAC)**
- WE5RFP059 **Diffusive Radiation from Rough Surfaces for Beam Diagnostics – Zh.S. Gevorkian (YerPhI)**
- WE5RFP060 **Development of a Elliptically Polarizing Undulator – J.D. Kulesza, A. Deyhim, E. Van Every, D.J. Waterman (Advanced Design Consulting, Inc) K.I. Blomqvist (MAX-lab)**
- WE5RFP061 **Development of a Hybrid Wiggler/Undulator MPW-80 – J.D. Kulesza, A. Deyhim, E. Van Every, D.J. Waterman (Advanced Design Consulting, Inc) K.I. Blomqvist (MAX-lab)**
- WE5RFP062 **Cancellation of the Planar Hall Probe Effect Using a New Two-Sensor Design – I. Vasserman, B. Berkes, J.Z. Xu (ANL) J. Kvitkovitc (Slovak Academy of Sciences, Institute of Electrical Engineering)**
- WE5RFP063 **Performance of the Production Support and Motion Systems for the Linac Coherent Light Source Undulator System – M. White, J.T. Collins, P.K. Den Hartog, G. Pile, S.E. Shoaf, S.J. Stein, E. Trakhtenberg, J.Z. Xu (ANL)**
- WE5RFP064 **A New Superconducting Undulator for the ANKA Synchrotron Light Source – C. Boffo, M. Borlein, W. Walter (BNG) T. Baumbach, A. Bernhard, D. Wollmann (University of Karlsruhe) S. Casalbuoni, A.W. Grau, M. Hagelstein, R. Rossmanith (FZK) E.M. Mashkina (University Erlangen-Nuernberg)**

- WE5RFP065 **Fabrication of 11 Permanent Magnet Undulators for PETRA III and FLASH – G. Sikler, W. Gaertner, St. Sattler (BNG) A. Schoeps, M. Tischer (DESY)**
- WE5RFP066 **A Simple Model-Based Magnet Sorting Algorithm for Undulators – G. Rakowsky, T. Tanabe (BNL)**
- WE5RFP067 **First Operational Experience with a Cryogenic Permanent Magnet Undulator at ESRF – G. Lebec, J. Chavanne, C. Penel, F. Revol (ESRF)**
- WE5RFP068 **Design, Development and Testing of Diagnostic Systems for Superconducting Undulators – M. Hagelstein, T. Baumbach, S. Casalbuoni, A.W. Grau, B.K. Kostka, R. Rossmanith, D. Saez de Jauregui (FZK) A. Bernhard, D. Wollmann (University of Karlsruhe) J. Chavanne, P. Elleaume (ESRF) B. Diviacco (ELETTRA) E.M. Mashkina (University Erlangen-Nurnberg, Institute of Condensed Matter Physics) E.J. Wallen (MAX-lab)**
- WE5RFP069 **Electron Multipacting to Explain the Pressure Rise in the ANKA Cold Bore Superconducting Undulator – S. Casalbuoni, M. Hagelstein, D. Saez de Jauregui, S. Schleede (FZK)**
- WE5RFP070 **Undulator System for Seeded FEL Experiment at FLASH – H. Delsim-Hashemi, J. Rossbach (Uni HH) Y. Holler, A. Schoeps, M. Tischer (DESY)**
- WE5RFP071 **Overview of Quasi-Periodic Undulators – S. Sasaki (HSRC)**
- WE5RFP072 **Fast Local Bump System for the Helicity Switching at the Photon Factory – S. Matsuba (Hiroshima University, Graduate School of Science) K. Harada, Y. Kobayashi, T. Miyajima, S. Nagahashi, T. Obina, M. Shimada, R. Takai (KEK)**
- WE5RFP073 **Magnetic Design of a Hybrid Undulator for Compact Terahertz FEL – J. Xiong, M. Fan, K.F. Liu, B. Qin, P. Tan, Y.Q. Xiong, J. Yang (HUST) Y.J. Pei (USTC/NSRL)**
- WE5RFP074 **Generation of Periodic Magnetic Field Using Bulk High-Tc Superconductor – T. Kii, M. A. Bakr, K. Higashimura, R. Kinjo, K. Masuda, H. Ohgaki, T. Sonobe, K. Yoshida, H. Zen (Kyoto IAE)**
- WE5RFP075 **High Performance Short-Period Undulators Using High Temperature Superconductor Tapes – S. Prestemon, D.R. Dietderich, A. Madur, S. Marks, D. Schlueter (LBNL)**
- WE5RFP076 **Status of UCLA Helical Permanent-Magnet Inverse Free Electron Laser – A. Knyazik (UCLA)**
- WE5RFP077 **Development of Dy Poles for HTS Undulator Applications – A.Y. Murokh, R.B. Agustsson, P. Frigola (RadiaBeam) V. Solovyov (BNL)**

- WE5RFP078 **Magnetic and Mechanical Characterization of the Two Variable Polarization Undulators for the ALBA Project – D. Zangrandó, R. Bracco, B. Diviacco, D. La Civita, D. Millo, M. Musardo, G. Tomasin (ELETTRA) F. Becheri, J. Campmany, C. Colldelram, D. Einfeld, J.V. Gigante (ALBA) M. Zeus (LLS)**
- WE5RFP079 **Field Optimization in Superconducting Undulators – S. Chunjarean (SLRI) C.-S. Hwang, J.C. Jan, F.-Y. Lin, P.H. Lin (NSRR) H. Wiedemann (SLAC)**
- WE5RFP080 **Development and Installation of Insertion Devices at SOLEIL – F. Marteau, C. Benabderrahmane, P. Berteaud, F. Briquet, L. Chapuis, O.V. Chubar, M.-E. Couprie, T.K. El Ajjouri, J.-M. Filhol, C.A. Kitegi, O. Marcouille, M. Massal, M. Valneau, J. Veteran (SOLEIL)**
- WE5RFP081 **Development of an Electromagnetic/Permanent Magnet Helical Undulator for Fast Polarization Switching – F. Marteau, P. Berteaud, F. Bouvet, L. Chapuis, M.-E. Couprie, J.P. Daguerre, J.-M. Filhol, A. Mary, K. Tavakoli (SOLEIL)**
- WE5RFP082 **A Short Undulator Utilizing Novel Materials – F.H. O'Shea (UCLA)**
- WE5RFP083 **Characterization of the BNL ATF Compton X-Ray Source Using K-Edge Absorbing Foils – O. Williams, G. Andonian, E. Hemsing, J.B. Rosenzweig (UCLA) M. Babzien, K. Kusche, J.H. Park, I. Pogorelsky, V. Yakimenko (BNL)**
- WE5RFP084 **Spectral Characterisation of the ANKA-SCU Radiation – A. Bernhard, T. Baumbach, F. Burkart, S. Ehlers, G. Fuchert, P. Peiffer, M. Wolf, D. Wollmann (University of Karlsruhe) R. Rossmanith, D. Saez de Jauregui (FZK)**
- WE5RFP085 **Magnetic Field Transients in Superconducting Undulators – S. Ehlers, T. Baumbach, G. Fuchert, P. Peiffer, D. Wollmann (University of Karlsruhe) A. Bernhard, R. Rossmanith (FZK) D. Schoerling (IMFD)**
- WE5RFP086 **New Materials for Superconductive Insertion Devices – P. Peiffer, T. Baumbach, A. Bernhard, D. Wollmann (University of Karlsruhe) R. Maccaferri (CERN) M. Noe, R. Rossmanith, T. Schneider (FZ Karlsruhe)**
- WE5RFP087 **Experimental Demonstration of the Induction-Shimming Concept in Superconductive Undulators – D. Wollmann, T. Baumbach, A. Bernhard, P. Peiffer (University of Karlsruhe) A.W. Grau, R. Rossmanith (FZK) E.M. Mashkina (University Erlangen-Nuernberg)**
- WE5RFP088 **Harmonic Motion of Electron Trajectory in Planar Undulator – Q.K. Jia (USTC/NSRL)**

**WE6PF — Afternoon Poster Session**  
*Circular Colliders, Lepton Accelerators*

- WE6PFP001 **Commissioning of RHIC Spin Flipper** – *M. Bai, A.K. Jain, A.U. Luccio, Y. Makdisi, M. Mapes, W. Meng, S. Nayak, P. Oddo, C. Pai, C. Pearson, P.H. Pile, V. Ptitsyn, T. Roser, T. Russo, J.E. Tuozzolo, P. Wanderer (BNL)*
- WE6PFP002 **Longitudinal Collision Area Measurements at RHIC** – *K.A. Drees, R.C. Lee, S. Nemesure (BNL)*
- WE6PFP003 **Results from Vernier Scans at RHIC during PP Runs 2005-2008** – *K.A. Drees, T. D'Ottavio (BNL)*
- WE6PFP004 **Beam Dynamics and Expected RHIC Performance with 56MHz RF Upgrade** – *A.V. Fedotov, I. Ben-Zvi (BNL)*
- WE6PFP005 **IBS and Possible Luminosity Improvement for RHIC Operation below Transition Energy** – *A.V. Fedotov (BNL)*
- WE6PFP006 **Overview of the Magnetic Nonlinear Beam Dynamics in the RHIC** – *Y. Luo, M. Bai, J. Beebe-Wang, J. Bengtsson, R. Calaga, W. Fischer, A.K. Jain, N. Malitsky, S. Peggs, F.C. Pilat, V. Ptitsyn, G. Robert-Demolaize, T. Satogata, S. Tepikian, D. Trbojevic (BNL) R. Tomas (CERN)*
- WE6PFP007 **Dynamic Aperture Evaluation for the RHIC Polarized Proton in 2009** – *Y. Luo, M. Bai, J. Beebe-Wang, W. Fischer, C. Montag, G. Robert-Demolaize, T. Satogata, S. Tepikian, D. Trbojevic (BNL)*
- WE6PFP008 **Reduction of Beta\* and Increase of Luminosity at RHIC** – *F.C. Pilat, M. Bai, D. Bruno, K.A. Drees, V. Litvinenko, Y. Luo, N. Malitsky, G.J. Marr, V. Ptitsyn, T. Satogata, S. Tepikian, D. Trbojevic (BNL)*
- WE6PFP009 **RHIC Low Energy Tests and Initial Operations** – *T. Satogata, L. Ahrens, M. Bai, J.M. Brennan, D. Bruno, J.J. Butler, K.A. Drees, A.V. Fedotov, W. Fischer, M. Harvey, T. Hayes, W. Jappe, R.C. Lee, W.W. MacKay, G.J. Marr, R.J. Michnoff, E. Pozdeyev, T. Roser, F. Severino, K. Smith, S. Tepikian, N. Tsoupas (BNL)*
- WE6PFP010 **Nonlinear Orbit Correction for RHIC Low Energy Operations** – *T. Satogata, J. Beebe-Wang, Y. Luo, S. Tepikian (BNL)*
- WE6PFP011 **Integration of the Forwards Detectors inside the LHC Machine** – *A.-L. Perrot, R. Appleby, D. Macina (CERN)*
- WE6PFP012 **LHC Cleaning Efficiency with Imperfections** – *C. Bracco, R.W. Assmann, S. Redaelli, Th. Weiler (CERN)*
- WE6PFP013 **Beam Commissioning Plan for LHC Collimation** – *C. Bracco, R.W. Assmann, S. Redaelli, Th. Weiler (CERN)*

- WE6PFP014 **Chromatic LHC Optics Effects on Collimation Phase Space Cuts – *C. Bracco, R.W. Assmann (CERN)***
- WE6PFP015 **Luminosity Optimization and Calibration in the LHC – *M. Lamont, R. Alemany-Fernandez, H. Burkhardt, S.M. White (CERN)***
- WE6PFP016 **Study of High Beta Optics Solution for TOTEM – *H. Burkhardt, Y.I. Levinson, S.M. White (CERN)***
- WE6PFP017 **LHC Abort Gap Cleaning with the Transverse Damper – *E. Gianfelice-Wendt (Fermilab) B. Goddard, W. Höfle, V. Kain, M. Meddahi, E.N. Shaposhnikova (CERN) A. Koschik (ETH)***
- WE6PFP018 **Optimization of the LHC Separation Bumps Including Beam-Beam Effects – *T. Pieloni, H. Burkhardt, S.D. Fartoukh, W. Herr, S.M. White (CERN)***
- WE6PFP019 **First Beam-Based Aperture Measurements for CERN Large Hadron Collider – *S. Redaelli, I.V. Agapov, B. Dehning, M. Giovannozzi, R. Tomas (CERN) R. Calaga (BNL) F. Roncarolo (UMAN)***
- WE6PFP020 **Study with One Global Crab Cavity at IR4 for LHC – *Y. Sun, R.W. Assmann, J. Barranco, R. Tomas, Th. Weiler, F. Zimmermann (CERN) R. Calaga (BNL)***
- WE6PFP021 **First Beta-Beating Measurement in the LHC – *R. Tomas, M. Aiba, M. Giovannozzi, G. Vanbavinkhove, J. Wenninger (CERN) R. Calaga (BNL) A. Morita (KEK)***
- WE6PFP022 **Beta-Beating Corrections in the SPS as a Testbed for the LHC – *R. Tomas, M. Aiba, G. Vanbavinkhove, J. Wenninger (CERN) R. Calaga (BNL) A. Morita (KEK)***
- WE6PFP023 **Status of the CLIC Beam Delivery System – *R. Tomas, H.-H. Braun, B. Dalena, G. Rumolo, D. Schulte (CERN) D. Angal-Kalinin (STFC/DL/ASTeC) A. Seryi (SLAC)***
- WE6PFP024 **ATF2 Ultra-Low IP Betas Proposal – *R. Tomas, F. Zimmermann (CERN) S. Bai (IHEP Beijing) P. Bambade (LAL) S. Kuroda, T. Tauchi, J. Urakawa (KEK) A. Seryi, G.R. White (SLAC)***
- WE6PFP025 **Analysis of Energy Deposition Patterns in the LHC Inner Triplet and the Resulting Impact on the Phase II Luminosity Upgrade Design – *E.Y. Wildner, F. Cerutti, A. Ferrari, A. Mereghetti, E. Todesco (CERN) F. Broggi (INFN/LASA)***
- WE6PFP026 **Linear and Nonlinear Optics Checks during LHC Injection Tests – *F. Zimmermann, S.D. Fartoukh, M. Giovannozzi, V. Kain, M. Lamont, Y. Sun, R. Tomas (CERN) R. Calaga (BNL)***
- WE6PFP027 **Beam Losses and Background Loads on Collider Detectors due to Beam-Gas Interactions in the LHC – *A.I. Drozdin, N.V. Mokhov, S.I. Striganov (Fermilab)***

- WE6PFP028 **Recent Experience with Electron Lens Beam-Beam Compensation at the Tevatron – V. Kamerdzhev, G.F. Kuznetsov, G.W. Saewert, V.D. Shiltsev, A. Valishev (Fermilab)**
- WE6PFP029 **Tevatron Electron Lens Upgrade – V. Kamerdzhev, G.W. Saewert (Fermilab)**
- WE6PFP030 **Characteristics of Beam Diffusion and its Application to Hadron Colliders – H.J. Kim, T. Sen (Fermilab)**
- WE6PFP031 **Simulations of Long-Range Beam-Beam Compensation in LHC – H.J. Kim, T. Sen (Fermilab)**
- WE6PFP032 **Study of Electron Lens in RHIC – H.J. Kim, T. Sen (Fermilab)**
- WE6PFP033 **Analytical Description of Tevatron Integrated Luminosity – M.J. Syphers (Fermilab)**
- WE6PFP034 **Electron Lens for Beam-Beam Compensation at LHC – A. Valishev, V.D. Shiltsev (Fermilab)**
- WE6PFP035 **Suppression of Beam-Beam Tune Spread Using Hollow Electron Beam – A. Valishev (Fermilab)**
- WE6PFP036 **Tracking and Tolerances Study for the ATLAS High Beta Optics – S. Cavalier, M. Heller (LAL) H. Burkhardt, P.M. Puzo, S.M. White (CERN)**
- WE6PFP037 **3D Strong-Strong Simulations of Wire Compensation of Long-Range Beam-Beam Effects at LHC – J. Qiang (BNL)**
- WE6PFP038 **Strong-Strong Beam-Beam Simulation of Crab Cavity Compensation at LHC – J. Qiang (BNL)**
- WE6PFP039 **Emittance Growth due to Beam-Beam Effects with a Static Offset in Collision in the LHC – T. Pieloni (PSI) W. Herr (CERN) J. Qiang (BNL)**
- WE6PFP040 **Simulation of Compensation Mechanisms for Head-On and Parasitic Beam-Beam Collisions at LHC – A.C. Kabel (SLAC)**
- WE6PFP041 **Petavac: 100 TeV Proton-Antiproton Colliding Beams with High Luminosity – P.M. McIntyre, A. Sattarov (Texas A&M University)**
- WE6PFP042 **Design of Interaction Region at SuperKEKB – Y. Funakoshi, T. Kageyama, K. Kanazawa, H. Koiso, K. Ohmi, Y. Ohnishi, N. Ohuchi, K. Oide, K. Shibata, M. Tawada (KEK) M. Iwasaki (University of Tokyo)**
- WE6PFP043 **Recent Progress of KEKB – Y. Funakoshi (KEK)**
- WE6PFP044 **Lattice Design for SuperKEKB – H. Koiso, A. Morita, Y. Ohnishi, K. Oide (KEK)**
- WE6PFP045 **Beam Dynamics for Very High Beam-Beam Parameter in an e<sup>+</sup>e<sup>-</sup> Collider – K. Ohmi (KEK)**

- WE6PFP046 **Variations in Beam Phase and Related Issues Observed in KEKB – *T. Ieiri, K. Akai, M. Tawada, M. Tobiyama (KEK)***
- WE6PFP047 **The SuperB Project and Site Layout – *S. Tomassini, M.E. Biagini, R. Boni, E. Di Pasquale, L. Pellegrino, R. Ricci, C. Sanelli, F. Sgamma (INFN/LNF) P. Raimondi, J. Seeman (SLAC)***
- WE6PFP048 **Low Beta Region Muon Collider Detector Design – *M.A.C. Cummings (Muons, Inc) D. Hedin (Northern Illinois University)***
- WE6PFP049 **Crab Waist Collision Scheme: Numerical Simulations versus Experimental Results – *P.A. Piminov, E.B. Levichev, D.N. Shatilov (BINP SB RAS) C. Milardi, M. Zobov (INFN/LNF) K. Ohmi (KEK)***
- WE6PFP050 **Longitudinal Bunch Position Control for the SuperB Accelerator – *C.H. Rivetta, K.J. Bertsche, M.K. Sullivan (SLAC) A. Drago (INFN/LNF)***
- WE6PFP051 **Further Progress on a Design for a Super-B Interaction Region – *M.K. Sullivan, K.J. Bertsche (SLAC) S. Betttoni (CERN) E. Paoloni (University of Pisa and INFN) P. Raimondi (INFN/LNF)***
- WE6PFP052 **Changing the PEP-II Center-of-Mass Energy from 10 GeV to 11 GeV – *M.K. Sullivan, K.J. Bertsche, F.-J. Decker, S. Ecklund, A.S. Fisher, J.D. Fox, A. Novokhatski, C.H. Rivetta, J. Seeman, D. Van Winkle, U. Wienands, W. Wittmer, G. Yocky (SLAC) W.X. Cheng (BNL)***
- WE6PFP053 **A Proposed Fast Luminosity Feedback for the Super-B Accelerator – *M.K. Sullivan, K.J. Bertsche, R.C. Field, A.S. Fisher (SLAC) A. Drago (INFN/LNF)***
- WE6PFP054 **Polarized Beams in the SuperB High Energy Ring – *W. Wittmer, U. Wienands (SLAC) M.E. Biagini, P. Raimondi (INFN/LNF) A.V. Bogomyagkov, I. Koop, S.A. Nikitin (BINP SB RAS)***
- WE6PFP055 **Simulation and Observation of Beam-Beam Induced Emittance Growth in RHIC – *J. Beebe-Wang, S.Y. Zhang (BNL)***
- WE6PFP056 **Investigation of the Radiation Background in the Interaction Region of a RHIC-Based Medium-Energy Electron-Ion Collider (MEeIC) – *J. Beebe-Wang (BNL)***
- WE6PFP057 **Beam-Beam Interaction Study of Medium Energy Electron-Ion Collider – *Y. Hao, V. Litvinenko, V. Ptitsyn (BNL)***
- WE6PFP058 **Electron Pinch Effect in Beam-Beam Interaction of ERL Based eRHIC – *Y. Hao, V. Litvinenko, V. Ptitsyn (BNL)***
- WE6PFP059 **Interaction Region Design for a RHIC-Based Medium-Energy Electron-Ion Collider – *C. Montag, J. Beebe-Wang (BNL)***
- WE6PFP060 **eRHIC Ring-Ring Design with Head-on Beam-Beam Compensation – *C. Montag, M. Blaskiewicz, W. Fischer, W.W. MacKay, E. Pozdnyev (BNL)***

- WE6PFP061 **Beta\* and Beta\* Waist Measurement and Control at RHIC – V. Ptitsyn**, A.J. Della Penna, V. Litvinenko, N. Malitsky, T. Satogata (BNL)
- WE6PFP062 **MEeIC - Staging Approach to eRHIC – V. Ptitsyn**, J. Beebe-Wang, I. Ben-Zvi, A.V. Fedotov, Y. Hao, A. Kayran, V. Litvinenko, C. Montag, E. Pozdeyev, T. Roser, S. Tepikian, D. Trbojevic, N. Tsoupas (BNL) A. Deshpande (Stony Brook University)
- WE6PFP063 **A Concept for a Polarized Electron-Nucleon Collider at the HESR of the FAIR Project – A. Lehrach** (FZJ) K. Aulenbacher, A. Jankowiak (IKP) W. Hillert (ELSA) T. Weis (DELTA)
- WE6PFP064 **Achromatic Interaction Point Design – Y.S. Derbenev**, S.A. Bogacz (JLAB) C.M. Ankenbrandt, V. Ivanov, R.P. Johnson, G.M. Wang (Muons, Inc)
- WE6PFP065 **Recent Progress on Design Studies of High-Luminosity Ring-Ring Electron-Ion Collider at CEBAF – Y. Zhang**, S.A. Bogacz, A. Bruell, P. Chevtsov, Y.S. Derbenev, R. Ent, G.A. Krafft, R. Li, L. Merminga, B.C. Yunn (JLAB)
- WE6PFP066 **Opportunities for a Low to Medium Energy Electron-Ion Collider Based on CEBAF and Staging Approach to ELIC – Y. Zhang**, S.A. Bogacz, Y.S. Derbenev, T. Horn, M. Hutton, C. Hyde, G.A. Krafft, A.W. Thomas, C. Weiss (JLAB)
- WE6PFP067 **Simulation Studies of Beam-Beam Effects of Electron-Ion Collider at CEBAF – Y. Zhang** (JLAB) J. Qiang (LBNL)
- WE6PFP068 **Emittance Evolution of the Drive Electron Beam in Helical Undulator for ILC Positron Source – W. Gai**, M. Borland, K.-J. Kim, W. Liu, A. Xiao (ANL) J. Sheppard (SLAC)
- WE6PFP069 **ILC Main Linac Beam Dynamics Incorporating Cavity Fabrication Errors – C.J. Glasman**, R.M. Jones (UMAN)
- WE6PFP070 **Photon Backgrounds at the CLIC Interaction Point due to Losses in the Post-Collision Extraction Line – M.D. Salt** (UMAN) R. Appleby, K. Elsener (CERN) A. Ferrari (Uppsala University)
- WE6PFP071 **ATF2 Spot Size Tuning Using the Rotation Matrix Method – A. Scarfe**, R. Appleby (UMAN) D. Angal-Kalinin, J.K. Jones (STFC/DL/ASTeC)
- WE6PFP072 **Ultimate Positron Polarization at ILC – A.A. Mikhailichenko** (Cornell University, Department of Physics)
- WE6PFP073 **Scheme for gamma-gamma Collisions at ILC – A.A. Mikhailichenko** (Cornell University, Department of Physics) H. Aksakal (N.U.)
- WE6PFP074 **Failures in the Main Linac of the International Linear Collider and their Effect on the Beam Delivery System – I. Melzer-Pellmann**, D. Kruecker, F. Poirier, N.J. Walker (DESY)

- WE6PFP075 **Study of the Effect of the Non-Linear Magnetic Fields in the Extraction Region of the ATF Extraction Line on the Emittance Growth – *M. Alabau, P. Bambade, G. Le Meur, F. Touze (LAL) A. Faus-Golfe (IFIC) S. Kuroda (KEK) M. Woodley (SLAC)***
- WE6PFP076 **CLIC Drive Beam Frequency Multiplication System Design – *C. Biscari, D. Alesini, A. Ghigo, F. Marcellini (INFN/LNF) J.B. Jeanneret (CERN)***
- WE6PFP077 **Beam Test Results with the FONT4 ILC Prototype Intra-Train Beam Feedback System – *P. Burrows, R. Apsimon, C.I. Clarke, B. Constance, H. Dabiri Khah, A.F. Hartin, C. Perry, J. Resta-López, C. Swinson (JAI) G.B. Christian (ATOMKI) A. Kalinin (STFC/DL/ASTeC)***
- WE6PFP078 **Functional Requirements on the Design of the Detectors and the Interaction Region of an e<sup>+</sup>e<sup>-</sup> Linear Collider with a Push-Pull Arrangement of Detectors – *T.W. Markiewicz, M. Oriunno, A. Seryi (SLAC) K. Buesser (DESY) P. Burrows (OXFORD-physics) A.A. Mikhailichenko (Cornell University, Department of Physics) B. Parker (BNL) T. Tauchi (KEK)***
- WE6PFP079 **Conceptual Design of the Drive Beam for a PWFA-LC – *S. Pei, M.J. Hogan, T.O. Raubenheimer, A. Seryi (SLAC) H.-H. Braun, R. Corsini, J.-P. Delahaye (CERN)***
- WE6PFP080 **Optics Design for FACET – *Y. Nosochkov, L.D. Bentson, R.A. Erickson, M.J. Hogan, N. Li, J. Seeman, A. Seryi, W. Wittmer (SLAC)***
- WE6PFP081 **A Concept of Plasma Wake Field Acceleration Linear Collider (PWFA-LC) – *A. Seryi, M.J. Hogan, S. Pei, T.O. Raubenheimer, P. Tenenbaum (SLAC) C. Huang, C. Joshi, W.B. Mori (UCLA) T.C. Katsouleas (Duke University) P. Muggli (USC)***
- WE6PFP082 **Power Saving Optimization for Linear Collider Interaction Region Parameters – *A. Seryi (SLAC)***
- WE6PFP083 **Free Electron Laser for gamma-gamma Collider at a Low-Energy Option of International Linear Collider – *E. Saldin, E. Schneidmiller, M.V. Yurkov (DESY) A. Seryi (SLAC)***
- WE6PFP084 **High Average Power Lasers for the Photon Collider – *J. Gronberg (LNL) A. Seryi (SLAC)***
- WE6PFP085 **Halo and Tail Simulations with Application to the CLIC Drive Beam – *M. Fitterer, A.-S. Muller (University of Karlsruhe) E. Adli, H. Burkhardt, B. Dalena, M. Fitterer, D. Schulte (CERN) I. Ahmed (NCP)***
- WE6PFP086 **Operation of a Free Hg Jet Delivery System for a High-Power Target Experiment – *V.B. Graves, A.J. Carroll, P.T. Spampinato (ORNL) I. Efthymiopoulos, A. Fabich (CERN) H.G. Kirk (BNL) K.T. McDonald (PU)***

## **Wednesday, May 6**

- WE6PFP087 **Muon Ionisation Cooling in Reduced RF – C.T. Rogers**  
(*STFC/RAL/ASTeC*) *M. Martini (CERN)*
- WE6PFP088 **Neutrino Factory Muon Collider Front End Simulation Comparisons – D.V. Neuffer** (*Fermilab*) *C. Y. Yoshikawa (Muons, Inc)*
- WE6PFP089 **Muon Capture, Phase Rotation, and Precooling in Pressurized RF Cavities – D.V. Neuffer** (*Fermilab*) *C.M. Ankenbrandt, R.P. Johnson, C. Y. Yoshikawa (Muons, Inc)*
- WE6PFP090 **MANX, A 6-D Muon Beam Cooling Experiment for RAL – K. Yonehara**, *V.S. Kashikhin, M.J. Lamm, A.V. Zlobin (Fermilab)* *R.J. Abrams, C.M. Ankenbrandt, M.A.C. Cummings, R.P. Johnson, S.A. Kahn (Muons, Inc)*
- WE6PFP091 **Commissioning the MICE Muon Beam – K.R. Long** (*Imperial College of Science and Technology, Department of Physics*)
- WE6PFP092 **Feasibility of Injection/Extraction Systems for Muon FFAG Rings in the Neutrino Factory – J. Pasternak**, *M. Aslaninejad (Imperial College of Science and Technology, Department of Physics)* *J.S. Berg (BNL)* *D.J. Kelliher, S. Machida (STFC/RAL/ASTeC)* *J. Pasternak (STFC/RAL)*
- WE6PFP093 **Reverse Emittance Exchange for Muon Colliders – C.M. Ankenbrandt**, *A. Afanasev, V. Ivanov, R.P. Johnson, G.M. Wang (Muons, Inc)* *S.A. Bogacz, Y.S. Derbenev (JLAB)*
- WE6PFP094 **A Quasi-Isochronous Muon Collection Channel – C.M. Ankenbrandt**, *C. Y. Yoshikawa (Muons, Inc)* *D.V. Neuffer (Fermilab)*
- WE6PFP095 **Integrating the MANX 6-D Muon Cooling Experiment into the MICE Spectrometers – S.A. Kahn**, *R.J. Abrams, M.A.C. Cummings (Muons, Inc)* *K. Yonehara (Fermilab)*
- WE6PFP096 **Particle Refrigerator – T.J. Roberts** (*Muons, Inc*) *D.M. Kaplan (Illinois Institute of Technology)*
- WE6PFP097 **Pulsed Magnet Arc Designs for Recirculating Linac Muon Accelerators – G.M. Wang**, *R.P. Johnson (Muons, Inc)* *S.A. Bogacz (JLAB)* *D. Trbojevic (BNL)* *G.M. Wang (ODU)*
- WE6PFP098 **Multipass Arc Lattice Design for Recirculating Linac Muon Accelerators – G.M. Wang** (*ODU*) *S.A. Bogacz (JLAB)* *R.P. Johnson, G.M. Wang (Muons, Inc)* *D. Trbojevic (BNL)*
- WE6PFP099 **Muon Storage Rings for a Neutrino Factory – C.R. Prior**  
(*STFC/RAL/ASTeC*)
- WE6PFP100 **Pulsed-Focusing Recirculating Linacs for Muon Acceleration – S.A. Bogacz** (*JLAB*) *R.P. Johnson, G.M. Wang (Muons, Inc)*
- WE6PFP101 **The Study of a Li Lens System as a Final Cooler for a Muon Collider – D.B. Cline** (*UCLA*)

- WE6PFP102 **Optimized Parameters for a Mercury Jet Target – X.P. Ding,**  
*D.B. Cline (UCLA) J.S. Berg, H.G. Kirk (BNL)*
- WE6PFP103 **CesrTA Layout and Optics – D. L. Rubin,** M.J. Forster, S.B.  
Peck, D. Sagan, J.P. Shanks (CLASSE)
- WE6PFP104 **CesrTA Low Emittance Tuning – First Results – J.P. Shanks,**  
*M.G. Billing, S.S. Chapman, M.J. Forster, S.B. Peck, D. L. Rubin,  
D. Sagan, J.W. Sexton (CLASSE)*
- WE6PFP105 **Lattice Options for the CLIC Damping Rings – Y. Papaphilippou,**  
*F. Antoniou (CERN) P. Raimondi (INFN/LNF) S.V. Sinyatkin,  
P. Vobly, K. Zolotarev (BINP SB RAS)*
- WE6PFP106 **Non-Linear Dynamics Considerations for the CLIC Damping**  
**Rings – Y. Papaphilippou (CERN) Ch. Skokos (Max Planck**  
*Institute for the Physics of Complex Systems)*
- WE6PFP107 **Design Considerations for the CLIC Pre-Damping Rings –**  
**F. Antoniou (National Technical University of Athens) Y. Papaphilippou, F. Zimmermann (CERN)**
- WE6PFP108 **Beam Based Calibration of Slow Orbit Bump at NSLS**  
**Booster – X. Yang, T.V. Shaftan (BNL)**
- WE6PFP109 **Operation of the FLASH Linac with Long Bunch Trains and**  
**High Average Current – N.J. Walker, V. Ayvazyan, L. Froehlich,**  
*S. Schreiber (DESY) J. Carwardine (ANL)*
- WE6PFP110 **Simultaneous Injections of Various Energy Particles into**  
**Two Rings in KEK Injector LINAC – N. Iida (KEK)**
- WE6PFP111 **The First Two Years of Operation of the 1.5GeV cw Elec-**  
**tron Accelerator MAMI C – A. Jankowiak, K. Aulenbacher, O.**  
*Chubarov, M. Dehn, H. Euteneuer, R.G. Heine, P. Jennewein,  
H.J. Kreidel, U. Ludwig-Mertin, O. Ott, G.S. Stephan, V. Tioukine*  
(IKP)
- WE6PFP112 **Current Status of the 12 MeV UPC Race-Track Microtron –**  
**Yu.A. Kubyshin, A. Crisol, X. Gonzalez Arriola, J.P. Rigla, F.**  
*Roure (UPC) A.V. Aloev, V.I. Shvedunov (MSU) J. Berenguer*  
*Sau, G. Montoro (EPSC) D. Carrillo, L. García-Tabarés, F. Toral*  
(CIEMAT) J. Lucas (Elytt Energy)

**WE6RF — Afternoon Poster Session**

*Accelerator Technology T13, T19, T20, Advanced Concepts A14*

- WE6RFP001 Lowering the Cost of the ILC SRF Cavity Helium Vessel – J.J. Sredniawski, D. Holmes, T. Schultheiss (AES)**
- WE6RFP002 Design of an ERL Linac Cryomodule – E.P. Chojnacki, S.A. Belomestnykh, R. Ehrlich, M. Liepe, H. Padamsee, J. Sears, E.N. Smith, V. Veshcherevich (CLASSE)**
- WE6RFP003 Helium II Calorimetry for the Detection of Abnormal Resistive Zones in LHC Sectors – L.J. Tavian (CERN)**
- WE6RFP004 Dependence of Superconducting Wire Motion on the Base Insulating Material in Magnetic Field – K. Ruwali (GUAS/AS) K. Hosoyama, K. Nakanishi (KEK) Y. Teramoto, A. Yamanaka (Toyobo Research Institute)**
- WE6RFP005 Plan of the S1-Global Cryomodules for ILC – N. Ohuchi, H. Hayano, N. Higashi, H. Nakai, K. Tsuchiya, A. Yamamoto (KEK) T.T. Arkan, H. Carter, M.S. Champion, J. Grimm, J.S. Kerby, D.V. Mitchell, T.J. Peterson, M.C. Ross (Fermilab) S. Barbanotti, C. Pagani, P. Pierini (INFN/LASA) L. Lilje (DESY)**
- WE6RFP006 Minimization of the Cryogenic Loading of a 2K SRF Module on a 4.5K Cryogenic Plant – M.H. Chang, M.-C. Lin, C.H. Lo, M.H. Tsai, Ch. Wang (NSRRC)**
- WE6RFP007 The Cryogenic System Designed for SRF Protection and the Device Upgrading for Cryogenic System by Pronunciation, Counts, Warn Lamps – F.-T. Chung (NSRRC)**
- WE6RFP008 Design of 1.3 GHz Single 9 Cell SC Cavity Test Cryomodule for ILC Collaboration at IHEP – T.X. Zhao, L.-Y. Xiong, L. Zhang, Z.G. Zong (TIPC) J. Gao, Q.J. Xu, J.Y. Zhai (IHEP Beijing) L.Q. Liu (Technical Institute of Physics and Chemistry) T.X. Zhao (Graduate School of the Chinese Academy of Sciences)**
- WE6RFP009 Investigations on Absorber Materials at Cryogenic Temperatures – F. Marhauser, S. Castagnola, C. Dreyfuss, T. Elliott, K. Macha, R. Manus, R.A. Rimmer, S. Williams (JLAB)**
- WE6RFP010 Optical Diagnostic Results for the MERIT High-Power Target Experiment – H.G. Kirk, H. Park, T. Tsang (BNL) J.R.J. Bennett (STFC/RAL/ASTeC) O. Caretta, P. Loveridge (STFC/RAL) A.J. Carroll, V.B. Graves (ORNL) I. Efthymiopoulos, A. Fabich, F. Haug, J. Lettry, M. Palm (CERN) K.T. McDonald (PU)**
- WE6RFP011 Pattern Recognition of the Multi-Turn 6D Motion of Halo Particles through a Bent Si Crystal – G. Robert-Demolaise, K.A. Drees, S. Peggs (BNL)**

- WE6RFP012 **Simulation of the LHC Collimation System Using MERLIN – H.L. Owen, S. Alshammary, R.J. Barlow, A.M. Toader (UMAN)**
- WE6RFP013 **Cornell ERL Phase-1a Electron Beam Dump – X. Liu (Cornell University, Department of Physics) I.V. Bazarov, B.M. Dunham, Y. Li, K.W. Smolenski (CLASSE)**
- WE6RFP014 **A High Current PET Target and Compact Industrial Beam-line System – M.P. Dehnel (D-Pace) M.H. Stokely, B. Wieland (Bruce Technologies Inc.)**
- WE6RFP015 **Energy Deposition Studies for Possible Ceramic Phase II Collimators – L. Lari (EPFL) R.W. Assmann, M. Brugger, F. Cerutti, A. Ferrari, L. Lari, M. Mauri, V. Vlachoudis, Th. Weiler (CERN)**
- WE6RFP016 **Advanced Materials for Future Phase II LHC collimators – A. Dallocchio, G. Arnau-Izquierdo, K. Artoos, A. Bertarelli (CERN)**
- WE6RFP017 **Collimation Considerations for PS2 – J. Barranco (UPC) W. Bartmann, M. Benedikt, Y. Papaphilippou (CERN)**
- WE6RFP018 **Energy Deposition Studies for the LHC Insertion Region Upgrade Phase-1 – F. Cerutti, F. Borgnolutti, A. Ferrari, A. Mereghetti, E.Y. Wildner (CERN)**
- WE6RFP019 **Simulation Results for Crystal Collimation Experiment in SPS UA9 – E. Lafage, W. Scandale (CERN) G. Cavoto (INFN-Roma)**
- WE6RFP020 **A Synchrobetatron Condition on the Grazing Function g for Efficient Crystal Collimation – V.P. Previtali (CERN) S. Peggs (BNL) V.P. Previtali (EPFL)**
- WE6RFP021 **Beam Loss Predictions for the UA9 Crystal Collimation Experiment – V.P. Previtali, R.W. Assmann, S. Redaelli (CERN) V.P. Previtali (EPFL) I.A. Yazynin (IHEP Protvino)**
- WE6RFP022 **Simulations of Crystal Collimation for the LHC – V.P. Previtali, R.W. Assmann, S. Redaelli (CERN) V.P. Previtali (EPFL) I.A. Yazynin (IHEP Protvino)**
- WE6RFP023 **Operational Experience with a LHC Collimator Prototype in the CERN Super-Proton Synchrotron – S. Redaelli, O. Aberle, R.W. Assmann, C. Bracco, B. Dehning, M. Jonker, R. Losito, A. Masi, M. Sapinski, Th. Weiler, C. Zamantzas (CERN)**
- WE6RFP024 **The UA9 Experiment at the CERN-SPS – W. Scandale (CERN)**
- WE6RFP025 **Fermilab Main Injector Collimation Systems: Design, Commissioning and Operation – B.C. Brown, P. Adamson, D. Capista, A.I. Drozdin, D.E. Johnson, I. Kourbanis, N.V. Mokhov, D.K. Morris, I.L. Rakhno, K. Seiya, V.I. Sidorov, G.H. Wu, M.-J. Yang (Fermilab)**

- WE6RFP026 **Performance Evaluation of the CLIC Baseline Collimation System – J. Resta-López (JAI)**
- WE6RFP027 **Performance and Upgrades to the SNS Collimator Systems**  
– *M.A. Plum, A. Abdou, P.D. Ferguson, P.J. Geoghegan, L.L. Jacobs, J.G. Janney, S.M. McTeer, I.I. Popova (ORNL)*
- WE6RFP028 **ISOL Target Simulations – Y. Zhang, G. Alton, R. Remec (ORNL) Z. Liu (IUCF)**
- WE6RFP029 **Parametric Studies of an 18 MW Water Beam Dump for a Future Electron Linear Collider – J.W. Amann, R. Arnold, D.R. Walz (SLAC) S. Pal, P. Rai, P. Satyamurthy, V. Tiwari (BARC)**
- WE6RFP030 **Recent Progress on the Design of a Rotatable Copper Collimator for the LHC Collimation Upgrade – J.C. Smith, L. Keller, S.A. Lundgren, T.W. Markiewicz (SLAC)**
- WE6RFP031 **Prospects for Integrating a Hollow Electron Lens into the LHC Collimation System – J.C. Smith (SLAC) R.W. Assmann, V.P. Previtali (CERN) A.I. Drozdin, V.D. Shiltsev, A. Valishev (Fermilab)**
- WE6RFP032 **Morphology of a Powder Jet as a Target for the Neutrino Factory – O. Caretta, C.J. Densham, P. Loveridge (STFC/RAL) T.W. Davies (Exeter University) R.M. Woods (Gericke LTD)**
- WE6RFP033 **Design and Development of the T2K Pion Production Target – C.J. Densham (STFC/RAL)**
- WE6RFP034 **Beam Impact Studies for ILC Collimators – G. Ellwood (STFC/RAL)**
- WE6RFP035 **Design of Momentum Spoilers for the Compact Linear Collider – J.-L. Fernandez-Hernando (STFC/DL/ASTeC) J. Resta-López (JAI)**
- WE6RFP036 **Activation and Residual Equivalent Dose Rate Studies for an ILC Betatron Spoiler Prototype – J.-L. Fernandez-Hernando (STFC/DL/ASTeC)**
- WE6RFP037 **Initial Studies and a Review of Options for a Collimator System for the Linac4 Accelerator – J.-L. Fernandez-Hernando, D. Angal-Kalinin (STFC/DL/ASTeC) F. Gerigk, A.M. Lombardi, R. Losito (CERN)**
- WE6RFP038 **An FEA Study of Stress Waves Generated in the T2K Beam Window from the Interaction with a High Power Pulsed Proton Beam – M.T. Rooney, C.J. Densham (STFC/RAL) Y. Yamada (KEK)**
- WE6RFP039 **Solid Target for a Neutrino Factory – G.P. Skoro (Sheffield University) J.J. Back (University of Warwick) J.R.J. Bennett (STFC/RAL/ISIS) S.J. Brooks (STFC/RAL/ASTeC) C.J. Densham, T.R. Edgecock, P. Loveridge (STFC/RAL)**

- WE6RFP040 **MICE Target Operation and Monitoring – C.N. Booth, P. Hodgson, P.J. Smith (Sheffield University)**
- WE6RFP041 **MICE Target Hardware – P.J. Smith, C.N. Booth, P. Hodgson (Sheffield University)**
- WE6RFP042 **The FERMI@elettra Beam Dump – S. Ferry, E. Karantzoulis (ELETTRA)**
- WE6RFP043 **The FERMI@elettra Collimators – S. Ferry, C. Bontoiu, P. Craievich, S. Di Mitri, E. Karantzoulis (ELETTRA)**
- WE6RFP044 **Fabrication of Silicon Crystals for Channeling Experiments in Accelerators – A. Mazzolari, S. Baricordi, P. Dalpiaz, V. Guidi, G. Martinelli, D. Vincenzi (UNIFE) E. Bagli (INFN-Ferrara)**
- WE6RFP045 **DESY EDMS: Information Management for World-Wide Collaborations – L. Hagge, J. Buerger, J.A. Dammann, S. Eucker, A. Herz, J. Kreutzkamp, S. Panto, S. Suehl, D. Szepielak, P. Tumidajewicz, N. Welle (DESY)**
- WE6RFP046 **The XFEL Roombook - Processes and Tools for Designing the Technical Infrastructure of the European XFEL – L. Hagge, S. Eucker, J. Kreutzkamp (DESY)**
- WE6RFP047 **Remotely Operated Train for Inspection and Measurement in CERN's LHC Tunnel – K. Kershaw, C. Bertone, P. Bestmann, T. Feniet, D. Forkel-Wirth, J.L. Grenard, N. Rousset (CERN)**
- WE6RFP048 **Radiation Zoning for Vacuum Equipment of the CERN Large Hadron Collider – E. Mahner, S. Chemli, P. Cruikshank, D. Forkel-Wirth, J.M. Jimenez (CERN)**
- WE6RFP049 **Optimisation of the Powering Tests of the LHC Superconducting Circuits – R. Schmidt, B. Bellesia, M.P. Casas Lino, C. Fernandez-Robles, M. Pojer, R.I. Saban, M. Solfaroli Camillocci, A. Vergara-Fernández (CERN)**
- WE6RFP050 **The Conceptual Design of TPS Grounding System – T.-S. Ueng, J.-C. Chang, Y.-C. Lin (NSRRC)**
- WE6RFP051 **Experiments and Numerical Simulation of the Air Conditioning System Design for the 3GeV TPS Storage Ring – J.-C. Chang, Y.-C. Chung, C.Y. Liu, A. Sheng, Z.-D. Tsai (NSRRC)**
- WE6RFP052 **Power Saving Schemes in the NSRRC – J.-C. Chang, Y.-C. Chung, K.C. Kuo, K. Li, Y.-C. Lin, C.Y. Liu, A. Sheng, Z.-D. Tsai, T.-S. Ueng (NSRRC)**
- WE6RFP053 **Simulation and Design of the High Precision Temperature Control for the De-Ionized Cooling Water System – Z.-D. Tsai, J.-C. Chang, J.-R. Chen (NSRRC)**
- WE6RFP054 **Design and Performance of Resonance Frequency Control Cooling System of PEPP DTL – K.R. Kim, H.-G. Kim (PAL) Y.-S. Cho, H.-J. Kwon (KAERI)**

- WE6RFP055 **The Argonne Wakefield Accelerator Facility (AWA): Upgrades and Future Experiments – M.E. Conde, S.P. Antipov, W. Gai, F. Gao, R. Konecny, W. Liu, J.G. Power, Z.M. Yusof (ANL) C.-J. Jing (Euclid TechLabs, LLC)**
- WE6RFP056 **Development of a Non-Axisymmetric Permanent Magnet Focusing System for Elliptic Charged-Particle Beams – T.M. Bemis, M.H. Lawrence, J.Z. Zhou (Beam Power Technology, Inc.) C. Chen (MIT/PSFC)**
- WE6RFP057 **Wake Fields in Photonic Crystal Accelerator Structures and Application to RF Sources – G.R. Werner, C.A. Bauer, J.R. Cary, T. Munsat (CIPS)**
- WE6RFP058 **TBA Scheme with Ion/Proton Driving Beam – A.A. Mikhailichenko (Cornell University, Department of Physics)**
- WE6RFP059 **OSC with Optical Restrain of Heating Core – A.A. Mikhailichenko (Cornell University, Department of Physics) E.G. Bessonov (LPI)**
- WE6RFP060 **A 26 GHz Dielectric Based Wakefield Power Extractor – C.-J. Jing, A. Kanareykin, A.L. Kustov, P. Schoessow (Euclid TechLabs, LLC) M.E. Conde, W. Gai, F. Gao, R. Konecny, J.G. Power (ANL) S. Kazakov (KEK)**
- WE6RFP061 **A Transverse Modes Damped Dielectric Loaded Accelerating Structure – C.-J. Jing, A. Kanareykin, P. Schoessow (Euclid TechLabs, LLC) M.E. Conde, W. Gai, R. Konecny, J.G. Power (ANL)**
- WE6RFP062 **Development of a THz Source Based on a Diamond Structure – A. Kanareykin, P. Schoessow (Euclid TechLabs, LLC) R. Gat (Coating Technology Solution, Inc.)**
- WE6RFP063 **Studies of Beam Breakup in Dielectric Structures – A. Kanareykin, C.-J. Jing, A.L. Kustov, P. Schoessow (Euclid TechLabs, LLC) W. Gai, J.G. Power (ANL)**
- WE6RFP064 **Accelerator Applications of New Nonlinear Ferroelectric Materials – P. Schoessow, A. Kanareykin (Euclid TechLabs, LLC) V.P. Yakovlev (Fermilab)**
- WE6RFP065 **The CLIC Positron Sources Based on Compton Schemes – L. Rinolfi, H.-H. Braun, Y. Papaphilippou, D. Schulte, A. Vivoli, F. Zimmermann (CERN) F. Antoniou (National Technical University of Athens) I.R. Bailey, L. Zang (Cockcroft Institute) E.V. Bulyak, P. Gladkikh (NSC/KIPT) R. Chehab (IN2P3 IPNL) J.A. Clarke (STFC/DL/ASTeC) O. Dadoun, P. Lepercq, R. Roux, A. Variola, Z.F. Zomer (LAL) W. Gai, W. Liu (ANL) T. Kamitani, T. Omori, J. Urakawa (KEK) M. Kuriki (HU/AdSM) H. Monard (CLIO/ELISE/LCP) I. Pogorelsky, V. Yakimenko (BNL) T. Takahashi (Hiroshima University, Graduate School of Science)**

- WE6RFP066 **Optical Diagnostic for Off-Axis Electrons in a Laser Wake-field Accelerator – M.H. Helle** (*Georgetown University*) *D.F. Gordon, A. Ting (NRL) D. Kaganovich (Icarus Research, Inc.)*
- WE6RFP067 **The International Design Study for the Neutrino Factory – K.R. Long** (*Imperial College of Science and Technology, Department of Physics*)
- WE6RFP068 **Multi-Mode Accelerating Structure with High Filling Factor – S.V. Kuzikov, M.E. Plotkin** (*IAP/RAS*)
- WE6RFP069 **Multi-Mode Cavity Design to Raise Breakdown Thresholds – S.V. Kuzikov** (*IAP/RAS*) *J.L. Hirshfield (Yale University, Physics Department) S. Kazakov (Omega-P, Inc.)*
- WE6RFP070 **Improving the Reliability of a LWFA with Ionization Induced Trapping – W. Lu, C. Joshi, W.B. Mori** (*UCLA*) *S.F. Martins (Instituto Superior Tecnico) C. Joshi, W.B. Mori (UCLA)*
- WE6RFP071 **Emission of Collimated X-Ray Radiation in Laser-Wakefield Experiments Using Particle Tracking in PIC Simulations – J.L. Martins, S. Fonseca, S.F. Martins, L.O. Silva** (*Instituto Superior Tecnico*) *C. Joshi, W.B. Mori (UCLA)*
- WE6RFP072 **Density Transition Measurement for the Electron Injection in Laser Wakefield Accelerator – J. Kim, J.-U. Kim, S.H. Yoo** (*KERI*)
- WE6RFP073 **Controlled Injection of Electrons in the Sharp Phase Mixing Region of LWFA – S.H. Yoo** (*KERI*)
- WE6RFP074 **Undulator-Based Laser Wakefield Accelerator Electron Beam Diagnostic – M.S. Bakeman, W.M. Fawley, W. Leemans, K. Nakamura, K.E. Robinson, C.B. Schroeder, C. Toth** (*LBNL*)
- WE6RFP075 **Multi-GeV Laser Wakefield Accelerator Stages and Controlled Injection – C.G.R. Geddes, G. Bouquot, E. Cormier-Michel, E. Esarey, W. Leemans, G.R.D. Plateau, C.B. Schroeder, C. Toth (LBNL) D.L. Bruhwiler, J.R. Cary, B.M. Cowan, C. Nieter, K. Paul (Tech-X)**
- WE6RFP076 **Experimental Study of Self-Trapping in Capillary Discharge Guided Laser Wakefield Acceleration – K. Nakamura, C.G.R. Geddes, A.J. Gonsalves, C. Lin, D. Panasenko, C.B. Schroeder, C. Toth (LBNL) E. Esarey, W. Leemans** (*University of Nevada, Reno*)
- WE6RFP077 **Development of Water Jet Plasma Mirror for Staging of Laser Wakefield Accelerators – D. Panasenko, E. Cormier-Michel, E. Esarey, C.G.R. Geddes, A.J. Gonsalves, W. Leemans, C. Lin, N.H. Matlis, K. Nakamura, G.R.D. Plateau, C.B. Schroeder, A.J. Shu, C. Toth (LBNL)**
- WE6RFP078 **Design Considerations for a Laser-Plasma Linear Collider – C.B. Schroeder, E. Esarey, C.G.R. Geddes, W. Leemans, C. Toth (LBNL)**

- WE6RFP079 **Length Scaling of the Electron Energy Gain in the Self-Guided Laser Wakefield Regime Using a 150 TW Ultra-Short Pulse Laser Beam – D.H. Froula, J. Bonlie, L. Divol, S.H. Glenzer, P. Michel, J. Palastro, D. Price, J.E. Ralph, J.S. Ross, C. Siders (LLNL) C.E. Clayton, C. Joshi, K.A. Marsh, A.E. Pak (UCLA) B.B. Pollock, G.R. Tynan (UCSD)**
- WE6RFP080 **Space-Charge Waves on Relativistic Elliptic Electron Beams – C. Chen, A.E. Brainerd, J.Z. Zhou (MIT/PSFC)**
- WE6RFP081 **The Design of Advanced Photonic Bandgap (PBG) Structures for High Gradient Accelerator Applications – R.A. Marsh, B.J. Munroe, M.A. Shapiro, R.J. Temkin (MIT/PSFC)**
- WE6RFP082 **Design of Photonic Bandgap (PBG) Accelerator Structures with Reduced Symmetry – B.J. Munroe, R.A. Marsh, M.A. Shapiro, R.J. Temkin (MIT/PSFC)**
- WE6RFP083 **Metamaterial-Based Linear Accelerator Structure – M.A. Shapiro, J.R. Sirigiri, R.J. Temkin (MIT/PSFC) G. Shvets (The University of Texas at Austin)**
- WE6RFP084 **Neutral Dual Ion Beams in Undulator Linear Accelerator with Electrostatic Undulator – E.S. Masunov, S.M. Polozov (MEPhI)**
- WE6RFP085 **Wakefield Excitation in Plasma Filled Dielectric Structure by a Train of Electron Bunches – I.N. Onishchenko, V. Kiselev, A. Linnik, V. Mirny, V. Uskov (NSC/KIPT)**
- WE6RFP086 **Analytical and Numerical Investigation of a Coaxial Two-Channel Dielectric Wakefield Accelerator – G.V. Sotnikov (NSC/KIPT) J.L. Hirshfield (Yale University, Physics Department) T.C. Marshall, G.V. Sotnikov (Omega-P, Inc.) S.V. Shchelkunov (Yale University, Beam Physics Laboratory)**
- WE6RFP087 **Development and Testing of X-Band Dielectric-Loaded Accelerating Structures – S.H. Gold (NRL) W. Gai, R. Konecny, W. Liu, J.G. Power (ANL) C.-J. Jing, A. Kanareykin (Euclid Tech-Labs, LLC) A.K. Kinkead (Icarus Research, Inc.)**
- WE6RFP088 **Photonic Bandgap Fiber Wakefield Experiment at SLAC – R.J. England, E.R. Colby, C. McGuinness, R.J. Noble, R. Siemann, J.E. Spencer, D.R. Walz (SLAC) R. Ischebeck (PSI) T. Plettner (Stanford University) C.M.S. Sears (MPQ)**
- WE6RFP089 **Applications of a Plasma Wake Field Accelerator – M.J. Hogan, I. Blumenfeld, N.A. Kirby, S. Pei, T.O. Raubenheimer, A. Seryi, P. Tenenbaum (SLAC) C. Huang, C. Joshi, W. Lu, W.B. Mori (UCLA) T.C. Katsouleas (Duke University) P. Muggli (USC)**
- WE6RFP090 **Woodpile Structure Fabrication for Photonic Crystal Laser Acceleration – C. McGuinness (SLAC)**

- WE6RFP091 **Parallel Fluid Simulations of Nonlinear Beam Loading in Laser Wakefield Accelerators** – *D.L. Bruhwiler, B.M. Cowan, K. Paul (Tech-X) J.R. Cary (CIPS) E. Cormier-Michel, C.G.R. Geddes, C.B. Schroeder (LBNL) E. Esarey, W. Leemans (University of Nevada, Reno)*
- WE6RFP092 **Axial and Near-Axis Channeling Effects of Positive and Negative High-Energy Particle Beams** – *V. Guidi (UNIFE)*
- WE6RFP093 **Positron Acceleration by Using a Particle Beam Driven Wake Field in Plasma** – *W. An, C. Huang, W. Lu, W.B. Mori (UCLA) T.C. Katsouleas (Duke University)*
- WE6RFP094 **Preliminary Study of the Arc for a Muon Collider with 1.5 TeV CM Energy and Using 20T HTS Dipole Magnets** – *D.B. Cline, X.P. Ding, A.A. Garren (UCLA) R.C. Gupta, H.G. Kirk (BNL) R.J. Weggel (Particle Beam Lasers, Inc.)*
- WE6RFP095 **Observation of Narrow-Band Terahertz Coherent Cherenkov Radiation from a Dielectric Structure** – *A. M. Cook, J.B. Rosenzweig, R. Tikhoplav, S. Tochitsky, G. Travish, O. Williams (UCLA)*
- WE6RFP096 **Vacuum Laser Acceleration Proof of Principle at BNL-ATF** – *L.S. Shao, D.B. Cline, X.P. Ding (UCLA) K. Kusche, I. Pogorelsky, V. Yakimenko (BNL)*
- WE6RFP097 **Simulations of 25 GeV PWFA Sections: Path Towards a PWFA Linear Collider** – *C. Huang, W. An, C.E. Clayton, C. Joshi, W. Lu, K.A. Marsh, W.B. Mori, M. Tzoufras (UCLA) I. Blumenfeld, M.J. Hogan, N.A. Kirby, T.O. Raubenheimer, A. Seryi (SLAC) T.C. Katsouleas (Duke University) P. Muggli (USC)*
- WE6RFP098 **High Transformer Ratio PWFA for Application on XFELs** – *W. Lu, W. An, C. Huang, C. Joshi, W.B. Mori (UCLA) M.J. Hogan, T.O. Raubenheimer, A. Seryi (SLAC)*
- WE6RFP099 **Investigation of Ionization Induced Electron Trapping in a Laser Wakefield Accelerator** – *A.E. Pak, C. Joshi, K.A. Marsh (UCLA)*
- WE6RFP100 **Self-Guiding of Ultra-Short, Relativistically Intense Laser Pulses through Underdense Plasmas in the Blowout Laser Wakefield Accelerator Regime** – *J.E. Ralph, F. Fang, C. Joshi, W. Lu, K.A. Marsh, W.B. Mori, A.E. Pak, F.S. Tsung (UCLA)*
- WE6RFP101 **Development of a Magnetically Controlled Optical Waveguide for Laser Wakefield Acceleration (LWFA)** – *B.B. Pollock, J.S. Ross, G.R. Tynan (UCSD) L. Divol, D.H. Froula, S.H. Glenzer (LLNL)*
- WE6RFP102 **Progress towards a 9.37GHz Disc-Loaded Waveguide Structure Filled with Low Loss Dielectric** – *X.D. He, S. Dong, Y.J. Pei, C.-F. Wu (USTC/NSRL)*

## **Wednesday, May 6**

- WE6RFP103 **Development of X-Band Photonic Band Gap Accelerating Structure – Z.P. Li (USTC) S. Dong, X.D. He, C.-F. Wu (USTC/NSRL)**
- WE6RFP104 **Gamma Ray Sources Based on Plasma Wakefield Accelerators – D.A. Jaroszynski, M.P. Anania, E. Brunetti, S. Chen, S. Cipiccia, B. Ersfeld, J. Gallacher, M.R. Islam, R.C. Issac, G. Raj, A. J. W. Reitsma, R.P. Shanks, G. Vieux, G.H. Welsh, S.M. Wiggins (USTRAT/SUPA) R. Bendoyro, J.M. Dias, F. Fiuzza, N. Lemos, M. Marti, J.L. Martins, L.O. Silva (Instituto Superior Técnico) N. Bourgeois (University of Oxford) P.S. Foster, R. Pat-tathil (STFC/RAL) S.M. Hooker, T. Ibbotson (University of Oxford, Clarendon Laboratory) D. Maneuski, V. O'Shea (University of Glasgow)**
- WE6RFP105 **Multi Cavity Proton Cyclotron Accelerator – M.A. LaPointe (Yale University, Beam Physics Laboratory) J.L. Hirshfield (Yale University, Physics Department) S. Kazakov (Omega-P, Inc.) V.P. Yakovlev (Fermilab)**

Thursday, May 7 08:30 – 12:30  
Hyatt Regency Vancouver, Plaza Foyer

**TH5PF — Morning Poster Session**  
*Beam Dynamics and EM Fields D03, D05, D06*

- TH5PFP001 **Large Scale Simulations of the Fermilab 8-GeV H-minus Linac: Beam Loss Studies from Machine Errors and H<sup>-</sup> Stripping** – *B. Mustapha, P.N. Ostroumov, J. Xu (ANL) J.-P. Carneiro (Fermilab)*
- TH5PFP002 **Simulation of Electron Cloud Density Distributions in RHIC Dipoles at Injection and Transition** – *P. He, W. Fischer (BNL)*
- TH5PFP003 **Physics Design for Beam Halo Experiment for ADS in China** – *J. Peng, S. Fu, T.G. Xu (IHEP Beijing) Y.F. Ruan (Institute of High Energy Physics, CAS)*
- TH5PFP004 **Final Design of the IFMIF-EVEDA Low Energy Beam Transport Line** – *N. Chauvin, O. Delferriere, R.D. Duperrier, R. Gobin, A. Mosnier, P.A.P. Nghiem, D. Uriot (CEA) M. Comunian (INFN/LNL)*
- TH5PFP005 **Optimization Results of Beam Dynamics Simulations for the Superconducting HWR IFMIF Linac** – *N. Chauvin, R.D. Duperrier, A. Mosnier, P.A.P. Nghiem, D. Uriot (CEA)*
- TH5PFP006 **IFMIF-EVEDA Accelerators: Strategies and Choices for Optics and Beam Measurements** – *P.A.P. Nghiem, N. Chauvin, O. Delferriere, R.D. Duperrier, A. Mosnier, D. Uriot (CEA) M. Comunian (INFN/LNL) C. Oliver (CIEMAT)*
- TH5PFP007 **Diffusion Rate in Tevatron Using Flying Wire** – *S. Shiraishi (Enrico Fermi Institute, University of Chicago) R. Tesarek (Fermilab)*
- TH5PFP008 **Accelerator Physics Concept for Upgraded LHC Collimation Performance** – *R.W. Assmann, G. Bellodi, J.M. Jowett, E. Métral, Th. Weiler (CERN)*
- TH5PFP009 **Studies on Combined Momentum and Betatron Cleaning in the LHC** – *R.W. Assmann, G. Bellodi, C. Bracco, V.P. Previtali, S. Redaelli, Th. Weiler (CERN)*
- TH5PFP010 **Assessment of CERN PSB Performance with Linac4 by Simulations of Beams with Strong Direct Space Charge Effects** – *C. Carli, M. Aiba, B. Goddard, M. Martini (CERN)*
- TH5PFP011 **Simulation of Beam-Gas Scattering in the LHC** – *Y.I. Levin-sen, H. Burkhardt (CERN) V. Taranov (IHEP Protvino)*
- TH5PFP012 **Non Relativistic Broad Band Wake Fields and Potential-Well Distortion** – *D. Quatraro, A. Findlay, B. Mikulec, G. Rumolo (CERN)*

- TH5PFP013 **Coherent Tune Shift and Instabilities Measurements at the CERN Proton Synchrotron Booster – D. Quatraro**, A. Blas, M. Chanel, A. Findlay, B. Mikulec, G. Rumolo (CERN)
- TH5PFP014 **Non Relativistic Resistive Wall Wake Fields and Single Bunch Stability – D. Quatraro**, G. Rumolo (CERN)
- TH5PFP015 **Recent Developments for the HEADTAIL Code: Updating and Benchmarks – D. Quatraro, G. Rumolo, B. Salvant** (CERN)
- TH5PFP016 **Incoherent Linear Tune Shift due to Crab Collision with a Crossing Angle – Y. Sun, F. Zimmermann** (CERN)
- TH5PFP017 **Space Charge Simulations for the Mu2e Experiment at Fermilab – J.F. Amundson, P. Spentzouris, E.G. Stern** (Fermilab)
- TH5PFP018 **Recent Advances in the Synergia Accelerator Simulation Framework – J.F. Amundson, P. Spentzouris, E.G. Stern** (Fermilab)
- TH5PFP019 **Microwave Transmission through the Electron Cloud at the Fermilab Main Injector: Simulation and Comparison with Experiment – P. Lebrun** (Fermilab) P. Stoltz, S.A. Veitzer (Tech-X)
- TH5PFP020 **Beam Studies with Electron Columns in Tevatron – V.D. Shiltsev, V. Kamerdzhiev, G.F. Kuznetsov** (Fermilab) A.L. Romanov (BINP SB RAS)
- TH5PFP021 **Simulation of rf Manipulations with Space Charge for the FAIR Synchrotrons – O. Boine-Frankenheim, O. Chorniy** (GSI)
- TH5PFP022 **High Intensity Beam Dynamics Benchmarking Studies in the SIS18 Synchrotron – G. Franchetti, I. Hofmann** (GSI)
- TH5PFP023 **High Intensity Nonlinear Dynamics in SIS100 – G. Franchetti** (GSI)
- TH5PFP024 **Space-Charge Driven Emittance Coupling in CSNS Linacs – X. Yin** (GSI) S. Fu, J. Peng (IHEP Beijing)
- TH5PFP025 **An Efficient 125mA, 40MeV Deuteron DTL for Fusion Material Tests – C. Zhang, M. Busch, H. Klein, H. Podlech, U. Ratzinger** (IAP)
- TH5PFP026 **Effects of Coherent Resonances for the JPARC Main Ring at the Moderate Beam Power – A.Y. Molodozhentsev, E. Forest** (KEK)
- TH5PFP027 **Observation and Analysis of Electron Cloud Instability of SNS Ring – Z. Liu** (IUCF) S.M. Cousineau, V.V. Danilov, C. Deibele, J.A. Holmes, A.P. Shishlo (ORNL)

- TH5PFP028 **Longitudinal Particle Simulation for J-PARC RCS – M. Yamamoto**, K. Hasegawa, M. Nomura, A. Schnase, T. Shimada, H. Suzuki, F. Tamura (JAEA/J-PARC) E. Ezura, K. Hara, C. Ohmori, A. Takagi, M. Toda, M. Yoshii (KEK) K. Horino (Nippon Advanced Technology Co. Ltd.)
- TH5PFP029 **Optical Measurement System of Laser-Cooled Mg Ion Beam – M. Nakao**, T. Ishikawa, A. Noda, H. Souda, M. Tanabe, H. Tongu (Kyoto ICR) M. Grieser (MPI-K) K. Jimbo (Kyoto IAE) S. Shibuya (AEC) T. Shirai (NIRS)
- TH5PFP030 **Recent Approach to Crystalline Beam with Laser-Cooling at Ion Storage Ring, S-LSR – A. Noda**, M. Nakao, H. Souda, H. Tongu (Kyoto ICR) M. Grieser (MPI-K) K. Jimbo (Kyoto IAE) I.N. Meshkov, A.V. Smirnov (JINR) K. Noda, T. Shirai (NIRS) H. Okamoto (HU/AdSM) S. Shibuya (AEC)
- TH5PFP031 **Laser Cooling Experiment with Resonant Coupling at S-LSR – H. Souda**, M. Nakao, A. Noda, M. Tanabe, H. Tongu (Kyoto ICR) M. Grieser (MPI-K) K. Jimbo (Kyoto IAE) S. Shibuya (AEC) T. Shirai (NIRS)
- TH5PFP032 **Status of Electron-Cloud Build-Up Simulations for the Main Injector – M.A. Furman (LBNL)** I. Kourbanis, R.M. Zwaska (Fermilab)
- TH5PFP033 **Touschek Lifetime Measurements at Ultrasmall Horizontal Emittance in the ALS – C. Steier**, L. Yang (LBNL)
- TH5PFP034 **Observation of Nonlinear Space-Charge Induced Phase Space Wave-Breaking and Emittance Growth in a High-Brightness Photoinjector – S.G. Anderson**, G.G. Anderson, C.P.J. Barty, R.D. Berry, D.J. Gibson, F.V. Hartemann, M. J. Messerly, M. Shverdin, C. Siders, A.M. Tremaine (LLNL) H. Badakov, A. Fukasawa, B. D. O'Shea, J.B. Rosenzweig (UCLA) P. Frigola (RadiaBeam)
- TH5PFP035 **Space Charge Waves in Mismatched Beams – B. R. Poole**, D.T. Blackfield, Y.-J. Chen, J.R. Harris (LLNL) P.G. O'Shea (UMD)
- TH5PFP036 **Conceptual Design of a 20 GeV Electron Accelerator for a 50 keV X-Ray Free-Electron Laser Using Emittance Exchange Optics and a Crystallographic Mask – S.J. Russell**, K. Bishofberger, B.E. Carlsten, D.C. Nguyen, E.I. Smirnova (LANL)
- TH5PFP037 **Performance on the Spectral Element Discontinuous Galerkin Simulations with Moving Window for Wake Field Calculations – M. Min**, P.F. Fischer (ANL)
- TH5PFP038 **Intrabeam Scattering Effect Calculated for a Non-Gaussian Distributed Linac Beam – A. Xiao**, M. Borland (ANL)
- TH5PFP039 **Solving Vlasov Equation for Beam Dynamics Simulation – J. Xu**, B. Mustapha, P.N. Ostroumov (ANL)

- TH5PFP040 **Optical Matching of EMMA Cell Parameters Using Field Map Sets – Y. Giboudot** (*Brunel University*) *F. Meot (CEA)*
- TH5PFP041 **Particle Tracking Studies Using Dynamical Map Created from Finite Element Solution of the EMMA Cell – Y. Giboudot, A. Khan** (*Brunel University*) *T.R. Edgecock (STFC/RAL)* *A. Wolski (The University of Liverpool)*
- TH5PFP042 **Simulation Studies on the Electron Cloud Instability in the CSNS Ring – N. Wang, Q. Qin** (*IHEP Beijing*)
- TH5PFP043 **Density Estimation Techniques for Charge Particle Beams with Applications to Microbunching Instability – G. Bassi** (*Cockcroft Institute*) *G. Bassi (The University of Liverpool)* *B. Terzic (Northern Illinois University)*
- TH5PFP044 **The Influence of Cell Misalignments and Cavity Perturbations on Large Accelerating Linac Structures Investigated Using Mode Matching and the Globalised Scattering Matrix Technique – I.R.R. Shinton, R.M. Jones** (*UMAN*)
- TH5PFP045 **Rapid Cavity Prototyping and Optimisation Using a Globalised Scattering Matrix Approach – I.R.R. Shinton, R.M. Jones** (*UMAN*)
- TH5PFP046 **Condor as a Resource for Accelerator Research – J.D.A. Smith** (*Cockcroft Institute*)
- TH5PFP047 **Electron Cloud Modeling Considerations at the CESR Test Accelerator – J.R. Calvey, J.A. Crittenden, G. Dugan, M.A. Palmer** (*CLASSE*)
- TH5PFP048 **A Methodology for Collimating Intra-Beam Scattered Particles in an Energy Recovery Linac – M. P. Ehrlichman, G.H. Hoffstaetter** (*CLASSE*)
- TH5PFP049 **Acceleration of Symplectic Integrator with Graphical Processing Units – J. Rowland, I.P.S. Martin** (*Diamond*)
- TH5PFP050 **Fast Multipole Approximation of 3D Self Fields Effect in High Brightness Electron Beams – M. Quattromini, L. Giannessi** (*ENEA C.R. Frascati*)
- TH5PFP051 **Numerical Algorithms for Dispersive, Active, and Nonlinear Media with Applications to the Paser – P. Schoessow, A. Kanareykin** (*Euclid TechLabs, LLC*) *L. Schächter (Technion)*
- TH5PFP052 **Electron Cloud Simulations for ANKA – U. Iriso** (*ALBA*) *S. Casalbuoni (FZK)* *G. Rumolo, F. Zimmermann (CERN)*
- TH5PFP053 **Graphical Front-End and Object-Oriented Design for IonEx, an Ion Extraction Modeling Code – L. Grubert, N. Barov, B. Cluggish, S. Galkin, J.S. Kim** (*Far-Tech, Inc.*)
- TH5PFP054 **Validation and Application of GEM (General ECRIS Modeling) – L. Zhao, B. Cluggish, J.S. Kim** (*Far-Tech, Inc.*)

- TH5PFP055 **Mathematica Application for Methodical Ionization Cooling Channel Design – Y. Alexahin** (*Fermilab*)
- TH5PFP056 **Using PARMILA 2 with the Particle Beam Optics Laboratory (PBO Lab) – G.H. Gillespie, W. Hill** (*G.H. Gillespie Associates, Inc.*)
- TH5PFP057 **Measured and Calculated Field Properties of the SIS 100 Magnets Described Using Elliptic and Toroidal Multipoles – E.S. Fischer, A. Mierau, P. Schnizer (GSI) P.G. Akishin (JINR) R.V. Kurnyshov (Electroplant) B. Schnizer (TUG/ITP) P.A. Shcherbakov (IHEP Protvino)**
- TH5PFP058 **RFQ Particle Dynamic Simulation Program Development – J.M. Maus, R.A. Jameson, A. Schempp (IAP)**
- TH5PFP059 **Numerical Calculation of Wake Fields in Structures with Conductive Walls – A.V. Tsakanian (Uni HH) M. Dohlus, I. Zagorodnov (DESY)**
- TH5PFP060 **Space Charge and Undulator Focusing – L.M. Hein (Humboldt University Berlin) A.N. Matveenko (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Elektronen-Speicherring BESSY II) A. Meseck (BESSY GmbH)**
- TH5PFP061 **SVD Analysis of Time-Domain Electromagnetic Field Data for Extracting Modes inside RF – S. Ahmed, D.M. Kaplan (Illinois Institute of Technology) A. Moretti (Fermilab)**
- TH5PFP062 **Study of Collective Effect for Muon Beams – D. Huang (IIT) D.M. Kaplan (Illinois Institute of Technology) K.Y. Ng (Fermilab) T.J. Roberts (Muons, Inc)**
- TH5PFP063 **A Dispersion Free Three-Dimensional Space-Charge Modeling Method – M. Hess, C.S. Park (IUCF)**
- TH5PFP064 **Computational Modeling of Electromagnetic Space-Charge Physics in RF Photoinjectors – C.S. Park, M. Hess (IUCF)**
- TH5PFP065 **Cubes in OLAP Systems – I.D. Valova (ICSR)**
- TH5PFP066 **Beam Dynamics Study of a C-Band Linac Driven FEL with S-Band Photo-Injector – V. Fusco, M. Ferrario (INFN/LNF)**
- TH5PFP067 **Longitudinal Phase Space Tomography at J-PARC RCS – M. Yoshimoto, N. Hayashi, F. Tamura, M. Yamamoto (JAEA/J-PARC) M. Yoshii (KEK/JAEA)**
- TH5PFP068 **Simulation of the Alignment of Linear Accelerators – J. Dale, A. Reichold (JAI)**
- TH5PFP069 **Simulation of Pellet Target Experiments with BETACOOL Code – D.A. Krestnikov (JINR/DLNP) R. Pivin, A.O. Sidorin, A.V. Smirnov (JINR)**

- TH5PFP070 **Application of the Adaptive Mesh Refinement Technique to Particle-in-Cell Simulations of Beams and Plasmas – J.-L. Vay, C.G.R. Geddes (LBNL) A. Friedman, D.P. Grote (LLNL)**
- TH5PFP071 **Multiobjective Optimization in Accelerator Design and Optimization – L. Yang, D. Robin, F. Sannibale, C. Steier, W. Wan (LBNL)**
- TH5PFP072 **Modeling Acceleration Schedules for NDCX-II – W. M. Sharp, A. Friedman, D.P. Grote (LLNL) E. Henestroza, M. Leitner, W.L. Waldron (LBNL)**
- TH5PFP073 **Ion Effect Issues in PETRA III – G.X. Xia (MPI-P) M. Ivanyan (CANDLE) K. Manukyan, K.A. Sargsyan (YSU) R. Wanzenberg (DESY)**
- TH5PFP074 **Putting Space Charge into G4beamline – K.B. Beard, T.J. Roberts (Muons, Inc)**
- TH5PFP075 **Simulation Tools for the Muon Collider Feasibility Study – T.J. Roberts (Muons, Inc) R.C. Fernow (BNL)**
- TH5PFP076 **Particle Tracking in Matter-Dominated Beam Lines – T.J. Roberts, K.B. Beard (Muons, Inc) S. Ahmed, D.M. Kaplan (Illinois Institute of Technology) D. Huang (IIT)**
- TH5PFP077 **Adaptive-Grid Wavelet-Based Algorithm for Solving the Poisson Equation in Particle-in-Cell Simulations – B. Terzic, B. Sprague (Northern Illinois University)**
- TH5PFP078 **Low-Frequency Time Domain Numerical Studies of Transition Radiation in a Cylindrical Waveguide – X. Sun, G. Decker (ANL)**
- TH5PFP079 **Statistical Analysis of Multipole Components in the Magnetic Field of the RHIC Arc Regions – J. Beebe-Wang, A.K. Jain (BNL)**
- TH5PFP080 **Results from a Test Fixture for Button BPM Trapped Mode Measurements – P. Cameron, B. Bacha, A. Blednykh, I. Pinayev, O. Singh (BNL)**
- TH5PFP081 **Comparative Study of Button BPM Trapped Mode Heating – P. Cameron, O. Singh (BNL)**
- TH5PFP082 **Matrix Solution of Coupling Impedance in Multi-Layer Circular Cylindrical Structures – H. Hahn (BNL)**
- TH5PFP083 **Eddy Current Shielding by Electrically Thick Vacuum Chambers – B. Podobedov, L. Ecker, D.A. Harder, G. Rakowsky (BNL)**
- TH5PFP084 **Computation of Resistive Wakefields for Collimators – R.J. Barlow, A.M. Toader (UMAN)**
- TH5PFP085 **Exact CSR Wakes for the 1-D Model – C.E. Mayes, G.H. Hoffstaetter (CLASSE)**

- TH5PFP086 **About Non Resonant Perturbation Field Measurement in Standing Wave Cavities – A. Mostacci, L. Palumbo (Rome University La Sapienza) D. Alesini, L. Ficcadenti, B. Spataro (INFN/LNF)**
- TH5PFP087 **CSR Impedance due to a Bend Magnet of Finite Length with a Vacuum Chamber of Arbitrary Cross Section – G.V. Stupakov (SLAC) I.A. Kotelnikov (BINP SB RAS)**
- TH5PFP088 **HOM Sensitivity in the PEP-II HER Vacuum Chamber – S.P. Weathersby, A. Novokhatski, M.K. Sullivan (SLAC)**
- TH5PFP089 **Trapped Mode Study in the LHC Rotatable Collimator – L. Xiao, C.-K. Ng, J.C. Smith (SLAC) F. Caspers (CERN)**
- TH5PFP090 **Fringe Field Properties in Magnets with Multipole or Mid-Plane Symmetry – G.I. Bell, D.T. Abell (Tech-X)**
- TH5PFP091 **Comparison of Analytical and Numerical Results for Broad-band Coupling Impedance – L. Haenichen, W.F.O. Muller, T. Weiland (TEMF, TU Darmstadt) A.M. Al-Khateeb, O. Boine-Frankenheim (GSI)**
- TH5PFP092 **Five Cell Method of Tuning of Biperiodic Linear Standing Wave  $\pi/2$  Accelerating Structures – E. Plawski, S. Kulinski, M. Wojciechowski (The Andrzej Soltan Institute for Nuclear Studies, Centre Swierk)**
- TH5PFP093 **Benchmarking Different Electromagnetic Codes for the High Frequency Calculation Using a Spherical Cavity – K. Tian, G. Cheng, F. Marhauser, H. Wang (JLAB)**
- TH5PFP094 **Beam Diagnostics with RF Deflecting Cavity in Tsinghua Thomson Scattering X-Ray Source – J. Shi, H. Chen, Y.-C. Du, W.-H. Huang, R.K. Li, C.-X. Tang (TUB) D. Li (LBNL)**
- TH5PFP095 **Numerical Simulation Design of Collinear Load of S-Band LINAC – Y. Sun, M.J. Li, L.G. Shen, Z. Shu, X.C. Wang (USTC/PMPI) Y.J. Pei (USTC/NSRL)**

**TH5RF — Morning Poster Session**  
*Instrumentation T03, T17, T18, T24*

- TH5RFP001 Development of Metamaterials for Cherenkov Radiation Based Particle Detectors – S.P. Antipov, W. Gai, J.G. Power (ANL) A. Kanareykin, P. Schoessow (Euclid TechLabs, LLC) G. Semouchkin, E. Semouchkina (PSU) A.V. Tyukhtin (Saint-Petersburg State University)**
- TH5RFP002 Simulations of the Beam Loss Monitor System for the LCLS Undulator Beamline – J.C. Dooling, W. Berg, A. Pietryla, B.X. Yang (ANL) H.-D. Nuhn (SLAC)**
- TH5RFP003 Development of a Fiber-Optic Beam Loss Position Monitor for the Advanced Photon Source Storage Ring – J.C. Dooling, W. Berg, L. Emery, B.X. Yang (ANL)**
- TH5RFP004 First Full-Sector Closed-Loop Operational Experience for the FPGA-Based Broadband Beam Position Monitor at the APS – W.E. Norum, H. Bui, G. Decker, L. Emery, R. Laird, F. Lenkszus, R.M. Lill, H. Shang (ANL)**
- TH5RFP005 Measurement of the 4D Transverse Phase Space Distribution from an RF Photoinjector at the AWA – J.G. Power, M.E. Conde, W. Gai, F. Gao, W. Liu, Z.M. Yusof (ANL) P. Piot (Northern Illinois University)**
- TH5RFP006 Bunch Current and Phase Detection for the APS PAR – C. Yao, W.E. Norum (ANL)**
- TH5RFP007 Tune Measurement System Upgrade with FPGA-Based Technology at the APS – C. Yao, W.E. Norum, J. Wang (ANL)**
- TH5RFP008 Upgrade of the Beam Position Monitors at the Brazilian Synchrotron Light Source – S.R. Marques, O.R. Bagnato, R.H.A. Farias, F.R. Francisco, R.T. Neuenschwander, F. Rodrigues, A.L. Rosa, R.M. Seraphim, P.F. Tavares, M.M. Xavier (LNLS)**
- TH5RFP009 LNLS Experience with Libera Brilliance – L. Sanfelici, S.R. Marques, X.R. Resende (LNLS) K. Raizer (UNICAMP)**
- TH5RFP010 Automating the Tune Measurement in the LNLS Control System – M.M. Xavier, S.R. Marques, A.F.A.G. Moreira (LNLS)**
- TH5RFP011 BPM Button Mechanical Optimization to Minimize Distortion due to Trapped Mode Heating – P. Cameron, B.N. Kosciuk, V. Ravindranath, O. Singh (BNL)**
- TH5RFP012 Development of High Stability Supports for NSLS-II RF BPMs – B.N. Kosciuk, R. Alforque, P. Cameron, I. Pinayev, S. Sharma, O. Singh (BNL)**

- TH5RFP013 **RHIC BPM System Average Orbit Calculations – *R.J. Michnoff, P. Cerniglia, C. Degen, R.L. Hulsart, M.G. Minty, R.H. Olsen, T. Roser, T. Satogata (BNL)***
- TH5RFP014 **Evaluation of Heat Dissipation in the BPM Buttons – *I. Pinayev, A. Blednykh (BNL)***
- TH5RFP015 **Preliminary Design of Pinhole Cameras for NSLS-II Project – *I. Pinayev, O.V. Chubar, V. Ravindranath, O. Singh (BNL)***
- TH5RFP016 **Comparison of RF BPM Receivers for NSLS-II Project – *I. Pinayev, B. Bacha, A.J. Della Penna, O. Singh (BNL) G. Decker (ANL)***
- TH5RFP017 **Grad-Level Proton and Neutron Radiation Damage of SiO<sub>2</sub> Detectors – *N. Simos, G. Atoian, J.G. O'Conor (BNL)***
- TH5RFP018 **Effects of High Proton Fluences on CdZnTe Detectors – *N. Simos, A. Aronson, A.E. Bolotnikov, R. James, H. Ludewig (BNL)***
- TH5RFP019 **Optical Beam Profile Monitor at the RHIC Polarized Hydrogen Jet – *T. Tsang, S. Bellavia, R. Connolly, D.M. Gassner, Y. Makdisi, T. Russo, P. Thieberger, D. Trbojevic, A. Zelenski (BNL)***
- TH5RFP020 **Beam Emittance Measurements in RHIC – *A. Zelenski (BNL)***
- TH5RFP021 **Beam Phase Monitor System Design for 100MeV Cyclotron – *Z.G. Yin, F.P. Guan, S.G. Hou, B. Ji, Z.G. Li, L.P. Wen, H.D. Xie, T.J. Zhang (CIAE)***
- TH5RFP022 **Ionization Beam Profile Monitor Designed for CSNS – *Y.F. Zhang, S. Fu, T.G. Xu (IHEP Beijing)***
- TH5RFP023 **Commissioning of the Probe Beam Linac for CTF3 – *W. Farabolini, D. Bogard, A. Curtoni, F. Peauger (CEA) E. Chevalley, M. Petrarca (CERN) R. Roux (LAL)***
- TH5RFP024 **Instrumentation for High Frequency Cavity BPM in CALIFES – *C. Simon, D. Bogard, M. Luong (CEA)***
- TH5RFP025 **Beam Measurements at the ALBA Linac – *U. Iriso, G. Benedetti, A. Olmos (ALBA)***
- TH5RFP026 **X-Ray Beam Size Monitor Upgrade for CesarTA – *J.P. Alexander, W.H. Hopkins, B. Kreis, H. Liu, M.A. Palmer, D.P. Peterson (CLASSE) C.J. Connelly, E. Fontes, A. Lyndaker, P. Revesz, J.J. Savino, R.D. Seeley (CHESS) J.W. Flanagan (KEK)***
- TH5RFP027 **CesarTA X-Ray Beam Size Monitor First Results – *J.P. Alexander, W.H. Hopkins, B. Kreis, H. Liu, D.P. Peterson (CLASSE) J.W. Flanagan (KEK)***
- TH5RFP028 **Upgrade of CESR-TA Beam Position Monitor for 4 ns-Spaced Bunches – *M.G. Billing, C.R. Strohman (Cornell University, Department of Physics) R. Meller, M.A. Palmer, M.C. Rendina, N.T. Rider (CLASSE)***

- TH5RFP029 **Design and Implementation of CesrTA Super-Conducting Wiggler Beampipes with Thin Retarding Field Analyzers –** *Y. Li, M.G. Billing, S. Greenwald, T.I. O'Connell, M.A. Palmer, J.P. Sikora, E.N. Smith, K.W. Smolenski (CLASSE) J.N. Corlett, R. Kraft, D.V. Munson, D.W. Plate (LBNL) K. Kanazawa, Y. Suet-sugu (KEK) M.T.F. Pivi (SLAC)*
- TH5RFP030 **Design, Implementation and First Results of Retarding Field Analyzers Developed for the CesrTA Program –** *M.A. Palmer, M.G. Billing, J.R. Calvey, G.W. Codner, S. Greenwald, Y. Li, X. Liu, J.A. Livezey, R. Meller, J.P. Sikora, C.R. Strohman, W.S. Whitney, T. Wilksen (CLASSE)*
- TH5RFP031 **Expected Performance of TOTEM BLMs at the LHC –** *R. Appleby, R.J. Hall-Wilton, D. Macina, V. Talanov (CERN)*
- TH5RFP032 **FLUKA Simulations and SPS Measurements for the LHC BRAN –** *E. Bravin, S.M. White (CERN)*
- TH5RFP033 **Ringing in the Pulse Response of Long and Wideband Coaxial Transmission Lines due to Group Delay Dispersion –** *G. Kotzian, F. Caspers, S. Federmann, W. Höfle (CERN) G. Kotzian (Graz University of Technology (TUG), Signal Processing and Speech Communication Laboratory (SPSC)) R. de Maria (BNL)*
- TH5RFP034 **First Experience with the LHC Beam Loss Monitoring System –** *B. Dehning (CERN)*
- TH5RFP035 **Energy Deposition Simulation and Measurements in a LHC Collimator and Beam Loss Monitors –** *B. Dehning (CERN)*
- TH5RFP036 **Beam Condition Monitoring for the CMS Experiment at LHC –** *R.J. Hall-Wilton (CERN)*
- TH5RFP037 **On the Continuous Measurement of the LHC Beta-Function - Prototype Studies at the SPS –** *R.J. Steinhagen, A. Boccardi, E. Calvo Giraldo, M. Gasior, J.L. Gonzalez, O.R. Jones (CERN)*
- TH5RFP038 **Longitudinal Schottky Spectrum of the Peak Bunch Amplitude Signal –** *E.N. Shaposhnikova, T. Bohl, T.P.R. Linnecar (CERN)*
- TH5RFP039 **Precision Beam Position Monitor for EUROTeV –** *L. Soby, F. Guillot-Vignot (CERN) I. Podadera Aliseda (CIEMAT)*
- TH5RFP040 **Resonant-Cavity Diagnostics for an Emittance Exchange Experiment –** *N. Barov, J.S. Kim, D.J. Newsham (Far-Tech, Inc.)*
- TH5RFP041 **An Improved Retarding Field Analyzer for Electron Cloud Studies –** *C.-Y. Tan, K.L. Duel, R.M. Zwaska (Fermilab)*

- TH5RFP042 **Bunch Length Monitoring at the A0 Photoinjector Using a Quasi-Optical Schottky Detector – G.M. Kazakevich, M.A. Davidsaver, H.T. Edwards, R.P. Fliller, T.W. Koeth, A.H. Lumpkin, S. Nagaitsev, J. Ruan, R. Thurman-Keup (Fermilab) Y.U. Jeong (KAERI) V.V. Kubarev (BINP SB RAS)**
- TH5RFP043 **Mitigation of COTR due to the Microbunching Instability in Compressed Beams – A.H. Lumpkin (Fermilab) W. Berg, Y.L. Li, S.J. Pasky, N. Sereno (ANL)**
- TH5RFP044 **Observation of Electron Clouds in the ANKA Undulator by Means of the Microwave Transmission Method – K.G. Sonnad, I. Birkel, S. Casalbuoni, E. Huttel, E.M. Mashkina, D. Saez de Jauregui, N.J. Smale (FZK) F. Caspers (CERN) A.-S. Muller, K.G. Sonnad (University of Karlsruhe) R. Weigel (Max-Planck Institute for Metal Research)**
- TH5RFP045 **Accurate Energy Measurement of the Electron Beam at Duke Storage Ring Using Compton Scattering Technique – C. Sun, J. Li, Y.K. Wu (FEL/Duke University) G. Rusev, A. Tonchev (TUNL)**
- TH5RFP046 **An LTS SQUID-Based High Precision Measurement Tool for Nuclear Physics – W. Vodel (FSU Jena)**
- TH5RFP047 **Particle Production in the MICE Beam Line – J.S. Graulich (DPNC)**
- TH5RFP048 **Performance of Coded Aperture X-Ray Optics with Low Emittance Beam at CesrTA – J.W. Flanagan, H. Fukuma, H. Ikeda (KEK) J.P. Alexander, M.A. Palmer (CLASSE) G.S. Varner (UH)**
- TH5RFP049 **Real-Time Measurement System of Longitudinal Structure of Electron Bunch – M. Shimada, K. Harada, Y. Kobayashi, T.M. Mitsuhashi, T. Miyajima, T. Uchiyama (KEK)**
- TH5RFP050 **Measurements of Proton Beam Extinction of J-PARC MR Synchrotron – K. Yoshimura (KEK) M. Aoki (Osaka University)**
- TH5RFP051 **A Laser-Based Beam Profile Measuring Instrument for the Front End Test Stand at RAL – D.A. Lee, P. Savage (Imperial College of Science and Technology, Department of Physics) C. Gabor (STFC/RAL/ASTeC) J.K. Pozimski (STFC/RAL)**
- TH5RFP052 **Fermilab HINS Proton Ion Source Beam Measurements – W.M. Tam (IUCF) G. Apollinari, S. Chaurize, G.V. Romanov, V.E. Scarpine, W.M. Tam, R.C. Webber (Fermilab)**
- TH5RFP053 **Design and Simulation of the Wire Scanner for Halo Formation Measurements in a Proton Linac Beam – Y.F. Ruan (Institute of High Energy Physics, CAS) S. Fu, J. Peng, T.G. Xu (IHEP Beijing)**

- TH5RFP054 **Construction and Characterization of the Inductive Pick-Up Series for Beam Position Monitoring in the TBL Line of the CTF3 at CERN – A. Faus-Golfe, C. Blanch Gutierrez, J.V. Civera-Navarrete, J.J. Garcia-Garrigos (IFIC)**
- TH5RFP055 **Libera Brilliance as a Single Pass BPM – A. Kosicek, B.B. Baricevic, M. Znidarcic (Instrumentation Technologies)**
- TH5RFP056 **Beam Diagnostics at IR Wavelengths at NSRL – A. Bocci, A. Drago, A. Marcelli (INFN/LNF) C. Li, Z. Qi, B. Sun, B.Y. Wang, J.G. Wang (USTC/NSRL) J.P. Piotrowski (VIGO System S.A.)**
- TH5RFP057 **Fast Horizontal  $e^+$  Instability Measurements in DAFNE – A. Drago (INFN/LNF)**
- TH5RFP058 **Beam Diagnostics for Positron Beam at DAFNE by 3+L Experiment – A. Drago, A. Bocci, A. Clozza, A.G. Grilli, A. Marcelli, R.S. Sorchetti (INFN/LNF) E.P. Emanuele (Universita degli Studi di Firenze) J.P. Piotrowski (VIGO System S.A.)**
- TH5RFP059 **IPM System for the Main Ring Synchrotron of the J-PARC – K. Satou, T. Toyama (J-PARC, KEK & JAEA) H. Harada (Hiroshima University, Graduate School of Science) Y. Kato (JAEA/J-PARC)**
- TH5RFP060 **Beam Based Alignment of the Beam Position Monitor at J-PARC RCS – N. Hayashi (JAEA/J-PARC)**
- TH5RFP061 **Study of J-PARC Linac Beam Position Monitor as Phase Monitor – S. Sato, K. Hasegawa, A. Miura, T. Morishita, H. Sako, A. Ueno, H. Yoshikawa (JAEA/J-PARC) Z. Igarashi, M. Ikegami (KEK) T. Tomisawa (JAEA/LINAC)**
- TH5RFP062 **Non-Destructive Two-Dimensional Transverse Profile Monitor for High Power Proton Beams – M. Yoshimoto, N. Hayashi, M. Kinsho (JAEA/J-PARC) Z. Kabeya (MHI)**
- TH5RFP063 **Longitudinal Beam Dynamics in the HDSM at MAMI – M. Dehn, H. Euteneuer, A. Jankowiak (IKP)**
- TH5RFP064 **Single Shot Emittance Measurement Using Optical Transition Radiation Screens at Energies above 100 MeV – N. Delerue, R. Bartolini (JAI) S.I. Bajlekov, L.S. Caballero-Bendixsen, T. Ibbotson (University of Oxford, Clarendon Laboratory) N. Bourgeois, P.A. Walker (University of Oxford) B. Buonomo, G. Mazzitelli (INFN/LNF) G. Doucas, S.M. Hooker, D. Urner (OXFORDphysics) C.A. Thomas (Diamond)**
- TH5RFP065 **Single Shot Emittance Measurements Using the Pepper-Pot Method at Energies above 100 MeV – N. Delerue, R. Bartolini, K.J. Peach (JAI) S.I. Bajlekov, L.S. Caballero-Bendixsen, T. Ibbotson (University of Oxford, Clarendon Laboratory) N. Bourgeois, P.A. Walker (University of Oxford) B. Buonomo, G. Mazzitelli (INFN/LNF) G. Doucas, S.M. Hooker, P. Lau, D. Urner (OXFORDphysics) C.A. Thomas (Diamond)**

- TH5RFP066 **Longitudinal Beam Profile Measurements at CTF3 Using Coherent Diffraction Radiation – *M. Micheler, G.A. Blair, G.E. Boorman, V. Karataev (JAI) R. Corsini, T. Lefevre (CERN)***
- TH5RFP067 **About the Opportunity to Use Solid-State Photo Multipliers for not Destroying Synchrotron Diagnostics of High Energy Proton Beams – *M.V. Maltseva, A.A. Maltsev (JINR)***
- TH5RFP068 **Parameter Measuring Instruments for Ionizing Particle Scanning Bunches – *O.S. Posukhov, M. Styervoiedov (KhNU)***
- TH5RFP069 **Acoustic Sensors Application for Acceleration Mode Adjustment Optimization – *O.S. Posukhov, S. Styervoiedov (KhNU)***
- TH5RFP070 **Nanometer Resolution Beam Position Monitor for the ATF2 Interaction Point Region – *A. Heo, E.-S. Kim, H.-S. Kim (Kyungpook National University) R.C.D. Ainsworth, S.T. Boogert, G.E. Boorman (Royal Holloway, University of London) Y. Honda, T. Tauchi, N. Terunuma (KEK) S.H. Kim, Y.J. Park (PAL) A. Lyapin, B. Maiheu, M. Wing (UCL) J. May, D.J. McCormick, S. Molloy, J. Nelson, T.J. Smith, G.R. White (SLAC) S. Shin (Fermilab) D. Son (CHEP) D.R. Ward (University of Cambridge)***
- TH5RFP071 **The TE Wave Transmission Method for Electron Cloud Measurements at Cesr-TA – *S. De Santis, J.M. Byrd (LBNL) M.G. Billing, J.P. Sikora (CLASSE)***
- TH5RFP072 **Remote Synchrotron Light Instrumentation Using Optical Fibers – *S. De Santis, J.M. Byrd, R.B. Wilcox (LBNL) Y. Yin (Y.Y. Labs, Inc.)***
- TH5RFP073 **Test Results of the Luminosity Monitors for the LHC – *A. Ratti, K. Chow, H.S. Matis, W.C. Turner (LBNL) E. Bravin (CERN) K.A. Drees (BNL)***
- TH5RFP074 **DARHT II Accelerator Beam Position Monitor Performance Analysis – *J.B. Johnson, C. Ekdahl (LANL) W. Broste (NSTec)***
- TH5RFP075 **Tune Measurements in the Los Alamos Proton Storage Ring – *R.C. McCrady (LANL)***
- TH5RFP076 **Prototype Beam Position and Phase Monitoring Electronics for LANSCE – *J.F. Power, J.D. Gilpatrick (LANL)***
- TH5RFP077 **cRIO-Based Wire Scanner Motion Control – *J.D. Sedillo, J.D. Gilpatrick (LANL)***
- TH5RFP078 **Advances in Multi-Pixel Photon Counter Technology – *R.J. Abrams (Muons, Inc) D. Hedin, V. Zutshi (Northern Illinois University)***
- TH5RFP079 **Large Area Photo-Detectors with Millimeter and Picosecond Resolution: Simulations – *T.J. Roberts, R.J. Abrams, M.A.C. Cummings, V. Ivanov (Muons, Inc) H.J. Frisch (Enrico Fermi Institute, University of Chicago)***

- TH5RFP080 **Study of the Stabilization to the Nanometer Level of Mechanical Vibrations of the CLIC Main Beam Quadrupoles – K. Artoos, O. Capatina, M. Guinchard, C. Hauviller, F. Lackner, J. Pfinngstner, H. Schmickler (CERN) B. Bolzon, L. Brunetti, N. Geffroy, A. Jeremie (IN2P3-LAPP) P.A. Coe, D. Urner (OXFORDphysics) M. Fontaine (CEA)**
- TH5RFP081 **Ground Vibration and Coherence Length Measurements for the CLIC Nano-Stabilization Studies – K. Artoos, O. Capatina, M. Guinchard, C. Hauviller (CERN) B. Bolzon, A. Jeremie (IN2P3-LAPP)**
- TH5RFP082 **Propagation Error Simulations Concerning the CLIC Active Pre-Alignment – T. Touzé, H. Mainaud Durand, D.P. Missiaen (CERN)**
- TH5RFP083 **Ground Motion Studies at Fermilab – V.D. Shiltsev, J.T. Volk (Fermilab) S.R. Singatulin (BINP SB RAS)**
- TH5RFP084 **Nanometer Order of Stabilization for Precision Beam Size Monitor (Shintake Monitor) – T. Kume, Y. Honda, T. Tauchi, N. Terunuma (KEK) B. Bolzon, N. Geffroy, A. Jeremie (IN2P3-LAPP) Y. Kamiya (ICEPP) S. Komamiya, M. Orouku, T.S. Suehara, T. Yamanaka (University of Tokyo)**
- TH5RFP085 **Tunnel and Magnet Survey of KEKB after Ten Years of Operation – M. Masuzawa, Y. Ohsawa, N. Ohuchi (KEK)**
- TH5RFP086 **Linear Collider Test Facility: ATF2 Final Doublet Active Stabilization Pertinence – B. Bolzon, A. Jeremie (IN2P3-LAPP) P. Bambade (KEK) Y. Renier (LAL) D. Schulte, R. Tomas (CERN) A. Seryi (SLAC)**
- TH5RFP087 **Linear Collider Final Doublet Considerations: ATF2 Vibration Measurements – B. Bolzon, N. Geffroy, A. Jeremie (IN2P3-LAPP)**
- TH5RFP088 **Magnetic Center Measurements of the XFEL Undulator Quadrupoles – F. Hellberg, H. Danared, A. Hedqvist (MSL) J. Pflueger (DESY)**
- TH5RFP089 **The Development of On-Line Vibration Measurement and Trace System – Z.-D. Tsai, J.-C. Chang, T.-S. Ueng (NSRRC)**
- TH5RFP090 **The Design and Prototype Tests of a Whole-Ring Girders Auto Alignment – W.Y. Lai, J.-R. Chen, T.C. Tseng, H.S. Wang (NSRRC)**
- TH5RFP091 **Results from the Linear Collider Alignment and Survey (Li-CAS) Experiment – A. Reichold, C. Uribe Estrada, D. Urner, S.Q. Yang (OXFORDphysics) P.J. Brockill, J. Dale, M. Jones, G.R. Moss, R. Wastie (JAI) M. Schloesser (DESY)**
- TH5RFP092 **Interferometric IP Position Monitoring system for ATF2 – D. Urner, P.A. Coe (OXFORDphysics) A. Reichold, M. S. Warden (JAI)**

- TH5RFP093 **Fission Fragment Ion Source Radiation Protection – S.I. Baker, E.F. Moore, R.C. Pardo, G. Savard (ANL)**
- TH5RFP094 **Beam Loss Monitors in the NSLS Storage Rings – S.L. Kramer, M.G. Fedurin (BNL)**
- TH5RFP095 **Fiber Optics for Fusion Applications – J. Schwartz (NHMFL) R.P. Johnson, M. Turenne (Muons, Inc)**
- TH5RFP096 **Study of Beam Loss Measurement in J-PARC Linac – A. Miura, K. Hasegawa, T. Morishita, H. Sako, H. Yoshikawa (JAEA/J-PARC) Z. Igarashi, M. Ikegami (KEK) S. Sato, T. Tomisawa, A. Ueno (JAEA/LINAC) H. Takahashi (JAEA)**
- TH5RFP097 **Beam Loss Monitoring System for the SPring-8 Storage Ring – Y. Shimosaki, K. Kobayashi, M. Oishi, M. Shoji, K. Soutome (JASRI/SPring-8)**
- TH5RFP098 **Development of a Photonic Crystal Fibre Laser Amplifier for Particle Beam Diagnostics – L.J. Nevay, A.S. Aryshev, G.A. Blair, S.T. Boogert, L. Deacon, D.F. Howell, V. Karataev, R. Walczak (JAI) L. Corner, N. Delerue, L.J. Nevay, M. Newman (OXFORDphysics)**
- TH5RFP099 **The Laser Emittance Scanner for 1 GeV H<sup>-</sup> Beam – D.-O. Jeon, A.V. Aleksandrov, S. Assadi, W.P. Grice, Y. Liu, A.A. Menshov, I. Nesterenko, J. Pogge, A. Webster (ORNL)**

Thursday, May 7 14:00 – 18:00  
Hyatt Regency Vancouver, Plaza Foyer

**TH6PF — Afternoon Poster Session**  
*Beam Dynamics and EM Fields D01, D02*

- TH6PFP001 Injector Design for Turkish Accelerator Center Free Electron Laser Facility – *Mr. Aksoy, O. Yavas (Ankara University, Faculty of Engineering) S.O. Ozkorucuklu (SDU)***
- TH6PFP002 Beam Dynamics Simulation for the CLIC Drive-Beam Accelerator – *Mr. Aksoy, O. Yavas (Ankara University, Faculty of Engineering) D. Schulte (CERN)***
- TH6PFP003 A Lattice Study for the Synchrotron Radiation Facility of the Turkish Accelerator Complex (TAC) with 3.56 GeV – *K. Zengin (Ankara University, Faculty of Sciences)***
- TH6PFP004 Search for Nonlinear Beam Dynamics Causes of Lifetime Reduction at the APS Storage Ring – *L. Emery, M. Borland, V. Sajaev, A. Xiao (ANL)***
- TH6PFP005 Beam Purity Studies for a Facility for Rare Isotope Beams – *L.L. Bandura, B. Erdelyi, J.A. Nolen (ANL) L.L. Bandura (Northern Illinois University)***
- TH6PFP006 A Realistic Corrective Steering Algorithm: Formalism and Applications – *B. Mustapha, V.N. Aseev, P.N. Ostroumov (ANL)***
- TH6PFP007 Simulation of Linear Lattice Correction and Coupling Correction of an Energy Recovery Linac Designed for an APS Upgrade – *V. Sajaev (ANL)***
- TH6PFP008 Emittance Coupling Control at the Australian Synchrotron – *R.T. Dowd, M.J. Boland, G. LeBlanc, Y.E. Tan (ASCo)***
- TH6PFP009 Low Alpha Configuration for Generating Short Bunches – *Y.E. Tan, D.R.T. Appadoo, M.J. Boland, R.T. Dowd (ASCo)***
- TH6PFP010 Precision Closed Orbit Correction in a Fast Ramping Stretcher Ring – *A. Balling, F. Frommberger, W. Hillert (ELSA)***
- TH6PFP011 Beam-Based Alignment of the LNLS UVX Storage Ring BPMs – *L. Liu, R.H.A. Farias, X.R. Resende, P.F. Tavares (LNLS)***
- TH6PFP012 Analysis of the LNLS Storage Ring Optics Using LOCO – *X.R. Resende, R.H.A. Farias, L. Liu, P.F. Tavares (LNLS)***
- TH6PFP013 An Injection/Extraction Scenario for EMMA – *J.S. Berg (BNL)***
- TH6PFP014 The Booster to AGS Transfer Line: Comparison between Model and Measurements – *K.A. Brown, L. Ahrens, R. Bonatti, D.M. Gassner, J.W. Glenn, H. Huang, J. Morris, S.M. Nida, V. Schoefer, N. Tsoupas, K. Zeno (BNL)***

- TH6PFP015 **Minimizing Emittance Growth during H<sup>+</sup> Injection in the AGS Booster** – **K.A. Brown, L. Ahrens, C.J. Gardner, D.M. Gassner, D. Raparia, D. Steski, P. Thieberger, K. Zeno (BNL)**
- TH6PFP016 **Numerical Based Linear Optics Model for Dipole Magnets** – **Y. Li, R.C. Gupta, A.K. Jain, S. Krinsky, M. Rehak (BNL)**
- TH6PFP017 **Simulations on the AGS Horizontal Tune Jump Mechanism** – **F. Lin, H. Huang, A.U. Luccio, T. Roser (BNL)**
- TH6PFP018 **Study of Spin Coherence Time in the EDM Experiment** – **F. Lin, A.U. Luccio, N. Malitsky, W. Morse, Y. Semertzidis (BNL) C.J. Onderwater (KVI) Y.F. Orlov (CLASSE) R.M. Talman (CESR-LEPP)**
- TH6PFP019 **Orbit Response Matrix Optics Correction at RHIC** – **T. Satogata, M. Bai, J. Bengtsson, G. Wang (BNL)**
- TH6PFP020 **ILC RTML Extraction Lines for Single Stage Bunch Compressor** – **S. Seletskiy (BNL)**
- TH6PFP021 **Alignment and Stability of the ILC Detector Solenoid** – **S. Seletskiy (BNL)**
- TH6PFP022 **An NS-FFAG Gantry for the PAMELA Project** – **R.J.L. Fennin, A. Khan (Brunel University) T.R. Edgecock (STFC/RAL) E. Keil (CERN) D.J. Kelliher, S. Machida (STFC/RAL/ASTeC) A. Sessler (LBNL) S.L. Sheehy, H. Witte, T. Yokoi (JAI) D. Trbojevic (BNL)**
- TH6PFP023 **Emittance Influence to Zumbro Lens in Proton Radiography** – **S. Wang (CAEP/IPF)**
- TH6PFP024 **Beam Waist Manipulations at the ATF2 Interaction Point** – **S. Bai, J. Gao, X.Z. Zhu (IHEP Beijing) A.S. Aryshev (JAI) P. Bambade, T. Okugi (KEK) Y. Kamiya (ICEPP) D.J. McCormick, M. Woodley (SLAC) M. Orouku, T. Yamanaka (University of Tokyo)**
- TH6PFP025 **Design Study of the CLIC Booster Linac with FODO Lattice** – **D. Wang, J. Gao (IHEP Beijing)**
- TH6PFP026 **Beam Dynamics Studies for the HIE-ISOLDE Linac at CERN** – **M.A. Fraser, R.M. Jones (UMAN) M. Lindroos, M. Pasini (CERN)**
- TH6PFP027 **ALBA Booster Lattice Settings for Optimized Performances** – **G. Benedetti, D. Einfeld (ALBA)**
- TH6PFP028 **Model Independent Analysis with Coupled Beam Motion** – **M.G. Billing, M.J. Forster, H.A. Williams (CLASSE)**
- TH6PFP029 **Bunch Compression for a Short-Pulse Mode in Cornell's ERL** – **J.R. Thompson, G.H. Hoffstaetter (CLASSE)**
- TH6PFP030 **Post-Linac Collimation System for the European XFEL** – **V. Balandin, R. Brinkmann, W. Decking, N. Golubeva (DESY)**

- TH6PFP031 **Low Sensitivity Option for Transverse Optics of the FLASH Linac at DESY – V. Balandin, N. Golubeva (DESY)**
- TH6PFP032 **A Low Momentum Compaction Lattice for the Diamond Storage Ring – I.P.S. Martin, J. Rowland, B. Singh, C.A. Thomas (Diamond) R. Bartolini, I.P.S. Martin (JAI)**
- TH6PFP033 **Double Mini-beta-Y Plus Virtual Horizontal Focussing Optics for the Diamond Storage Ring – B. Singh, R.T. Fielder, E.C. Longhi, I.P.S. Martin, C. Rau, U.H. Wagner (Diamond) R. Bartolini (JAI)**
- TH6PFP034 **Beam Losses at the CERN PS Injection – S. Aumont, S.S. Gilardoni, O. Hans, F.C. Peters (CERN)**
- TH6PFP035 **Studies on Single Batch Transfer of LHC Type Beams between the CERN PS Booster and the PS – C. Carli, A. Blas, A. Findlay, R. Garoby, S. Hancock, K. Hanke, B. Mikulec, M. Schokker (CERN)**
- TH6PFP036 **Lattice Issues of the CERN PSB with H<sup>-</sup> Charge Exchange Injection Hardware – C. Carli, M. Aiba, M. Chanel, B. Goddard, W.J.M. Weterings (CERN)**
- TH6PFP037 **Low-Beta Insertions Inducing Chromatic Aberrations in Storage Rings and their Local and Global Correction – S.D. Fartoukh (CERN)**
- TH6PFP038 **Determination of the Chromaticity of the TI 8 Transfer Line Based on Kick Response Measurements – K. Fuchsberger, S.D. Fartoukh, B. Goddard, O.R. Jones, V. Kain, M. Meddahi, V. Mertens, J. Wenninger (CERN)**
- TH6PFP039 **Beam Loss Control for the Unstripped Ions from the PS2 Charge Exchange Injection – W. Bartmann, J. Barranco, M. Benedikt, B. Goddard, T. Kramer, Y. Papaphilippou, H. Vincke (CERN)**
- TH6PFP040 **Machine Studies During Beam Commissioning of the SPS-to-LHC Transfer Lines – M. Meddahi, I.V. Agapov, K. Fuchsberger, B. Goddard, W. Herr, V. Kain, V. Mertens, D.P. Missiaen, T. Risselada, J.A. Uythoven, J. Wenninger (CERN) E. Gianfelice-Wendt (Fermilab)**
- TH6PFP041 **Beam Line Design for the CERN HiRadMat Test Facility – C. Hessler, R.W. Assmann, B. Goddard, M. Meddahi, W.J.M. Weterings (CERN)**
- TH6PFP042 **The 4 GeV H<sup>-</sup> Beam Transfer Line from the SPL to the PS2 – M. Meddahi, M. Eshraqi, B. Goddard, C. Hessler, A.M. Lombardi (CERN)**
- TH6PFP043 **Orbit, Optics and Chromaticity Correction for PS2 Negative Momentum Compaction Lattices – Y. Papaphilippou, J. Barranco, W. Bartmann, M. Benedikt, C. Carli (CERN) S. Peggs, D. Trbojevic, R. de Maria (BNL)**

- TH6PFP044 **Linear Optics Design of Negative Momentum Compaction Lattices for PS2 – Y. Papaphilippou, J. Barranco, W. Bartmann, M. Benedikt, C. Carli, B. Goddard (CERN) S. Peggs, D. Trbojevic, R. de Maria (BNL)**
- TH6PFP045 **Beam-Based Alignment in the New CLIC Main Linac – D. Schulte (CERN)**
- TH6PFP046 **Dynamic Effects in the New CLIC Main Linac – D. Schulte, R. Tomas (CERN)**
- TH6PFP047 **CLIC Main Beam Dynamics in the Ring to Main Linac Transport – F. Stulle, L. Rinolfi, D. Schulte (CERN) A. Ferrari (Uppsala University) A. Latina (Fermilab)**
- TH6PFP048 **Modeling the Tevatron Optics through Fourier Analysis of TBT Data – Y. Alexahin, E. Gianfelice-Wendt (Fermilab) V.V. Kapin (MEPhI)**
- TH6PFP049 **Measurement and Correction of the Fermilab Booster Optics – Y. Alexahin, E. Gianfelice-Wendt, W. Pellico, A.K. Triplett (Fermilab)**
- TH6PFP050 **Lattice Studies for a High Luminosity Muon Collider – Y. Alexahin, E. Gianfelice-Wendt (Fermilab)**
- TH6PFP051 **Muon Collider Lattice with Local Interaction Region Chromaticity Correction – Y. Alexahin, E. Gianfelice-Wendt (Fermilab)**
- TH6PFP052 **A Simple Transition-Free Lattice of an 8 GeV Proton Synchrotron – W. Chou (Fermilab)**
- TH6PFP053 **Linear and Nonlinear Beam Optics Studies in the SIS18 – A.S. Parfenova, G. Franchetti (GSI)**
- TH6PFP054 **Beam Dynamics Design of Debuncher System for J-PARC Linac Energy Upgrade – M. Ikegami (KEK) T. Morishita, H. Sako (JAEA/J-PARC) T. Ohkawa (Mitsubishi Heavy Industries,,Ltd, MHI)**
- TH6PFP055 **Correction of Sextupole Magnets Using Off-Momentum Betatron Phases – Y. Ohnishi (KEK)**
- TH6PFP056 **Beam Dynamics Studies for a Neutrino Factor Decay Ring – M. Apollonio, M. Aslaninejad, J. Pasternak (Imperial College of Science and Technology, Department of Physics)**
- TH6PFP057 **Emittance Generation in MICE – M. Apollonio (Imperial College of Science and Technology, Department of Physics)**
- TH6PFP058 **Orbit Response Matrix (ORM) Study of SNS Ring – Z. Liu, S.-Y. Lee (IUCF) S.M. Cousineau, J.A. Holmes, M.A. Plum (ORNL) X. Huang (SLAC)**
- TH6PFP059 **Beam Based Alignment Simulations and Measurements at the S-DALINAC – F. Hug (TU Darmstadt)**

- TH6PFP060 **Touschek Background and Lifetime Studies for the SuperB Factory – M. Boscolo, M.E. Biagini, P. Raimondi (INFN/LNF) E. Paoloni (University of Pisa and INFN) M.K. Sullivan (SLAC)**
- TH6PFP061 **Design of Beam Monitor Configuration for Upgraded 400-MeV J-PARC Linac – H. Sako, M. Ikegami, T. Morishita, S. Sato (JAEA/J-PARC)**
- TH6PFP062 **Direct Methods of Optimization of Storage Ring Dynamic and Momentum Aperture – M. Borland (ANL)**
- TH6PFP063 **Measure of Dynamic Aperture Using the RHIC AC Dipole – M. Bai, F.C. Pilat, V. Ptitsyn (BNL)**
- TH6PFP064 **Touschek Lifetime Calculations for NSLS-II – B. Nash, S.L. Kramer (BNL)**
- TH6PFP065 **Impact of Higher-Order Multipole Errors in the NSLS-II Quadrupoles and Sextupoles on Dynamic and Momentum Aperture – B. Nash (BNL)**
- TH6PFP066 **The Correction of Linear Lattice Gradient Errors Using an AC Dipole – G. Wang, M. Bai, V. Litvinenko, T. Satogata (BNL)**
- TH6PFP067 **Analysis of Henon Map by Linear Algebraic Method – L.-H. Yu, B. Nash (BNL)**
- TH6PFP068 **Simulation of Particle Behavior in RCS of CSNS with Simpsons – S.Y. Xu, S. Wang (IHEP Beijing)**
- TH6PFP069 **Design and Applications of an RF Traveling-Wave Transverse Deflector – J.R. Zhang (IHEP Beijing)**
- TH6PFP070 **Effect of the Magnetic Multipoles in the ALBA Performance – M. Munoz, D. Einfeld, Z. Martí (ALBA)**
- TH6PFP071 **Precision Spin Tracking at the ILC – A.F. Hartin (DESY) I.R. Bailey, D.P. Barber, J.A. Clarke, J.B. Dainton, K.M. Hock, O.B. Malyshev, N.C. Ryder, D.J. Scott, B.J.A. Shepherd (Cockcroft Institute) A.J. Brummitt (STFC/RAL) S. Hesselbach, G.A. Moortgat-Pick (Durham University) L.I. Malysheva, L. Zang (The University of Liverpool)**
- TH6PFP072 **A New Technique for the Correction of Nonlinear Resonances in Synchrotrons – R. Bartolini, I.P.S. Martin, J. Rowland (Diamond) P. Kuske (BESSY GmbH) F. Schmidt (CERN)**
- TH6PFP073 **Controlled Transverse Emittance Blow-Up in the CERN SPS – E. Métral, G. Arduini, F. Arnold Malandain, W. Höfle, D. Mangunki (CERN)**
- TH6PFP074 **Solenoid and Synchrotron Radiation Effects in CLIC – B. Dalena, D. Schulte, R. Tomas (CERN) D. Angal-Kalinin (STFC/DL/ASTeC)**

- TH6PFP075 **Measurement and Correction of Resonances in SOLEIL – R. Tomas**, M. Aiba, G. Vanbavincckhove (CERN) R. Calaga (BNL) A. Loulergue, A. Nadji, L.S. Nadolski, M.-A. Tordeux (SOLEIL)
- TH6PFP076 **Schottky Diagnostics in the ANKA Storage Ring – K.G. Sonnad**, I. Birkel, S. Casalbuoni, E. Huttel, N.J. Smale (FZK) F. Caspers (CERN) N. Hiller, A.-S. Muller, K.G. Sonnad (University of Karlsruhe) R. Weigel (Max-Planck Institute for Metal Research)
- TH6PFP077 **Automating the Computation of Quadrupole Transfer Maps and Matrices Utilizing Magnetic Field Solutions – G.H. Gillespie**, W. Hill (G.H. Gillespie Associates, Inc.) J.F. DeFord, B. Held (STAR, Inc.)
- TH6PFP078 **Stability Boundary of Ion Beams in the FAIR Storage Rings – A. Dolinsky, C. Dimopoulou, O.E. Gorda, S.A. Litvinov, F. Nolden, C. Peschke, F. Steck (GSI)**
- TH6PFP079 **Study of Integer Betatron Resonance Crossing in Scaling FFAG Accelerator – Y. Mori (KEK) A. Osanai (KURRI)**
- TH6PFP080 **Symplectic Expression for Chromaticity – Y. Seimiya, H. Koiso, K. Ohmi (KEK)**
- TH6PFP081 **Resonance Driving Term Experiment at DAFNE – C. Milardi (INFN/LNF) F. Schmidt (CERN)**
- TH6PFP082 **Formation of a Uniform Ion Beam Using Multipole Magnets – Y. Yuri, I. Ishibori, T. Ishizaka, S. Okumura, W. Yokota, T. Yuyama (JAEA/TARRI) S. Kubono, Y. Ohshiro, S.-I. Watanabe (CNS)**
- TH6PFP083 **Study of Diffusion in Action Space Using the Fokker-Planck Equation with PIC Simulation of Beam-Beam Interactions – J. Shi (KU)**
- TH6PFP084 **Experimental Frequency Map Analysis Using Multiple BPMs – C. Steier, D. Robin, L. Yang (LBNL)**
- TH6PFP085 **Beam Dynamics Studies for the FRIB Driver Linac – Q. Zhao, M. Doleans, D. Gorelov, F. Marti, T.P. Wangler, X. Wu, R.C. York (NSCL) J. Qiang (LBNL)**
- TH6PFP086 **Single Particle Dynamics in the University of Maryland Electron Ring – E.W. Nissen, B. Erdelyi (Northern Illinois University)**
- TH6PFP087 **Limiting Effects in the Transverse-to-Longitudinal Emittance Exchange for Low Energy Relativistic Electron Beams – M.M. Rihaoui, P. Piot (Northern Illinois University) W. Gai, J.G. Power (ANL)**
- TH6PFP088 **Integrable Accelerator Lattices with Periodic and Exponential Invariants – V.V. Danilov (ORNL)**
- TH6PFP089 **Beam Transverse Issues at the SNS Linac – Y. Zhang, A.V. Aleksandrov, C.K. Allen, J. Galambos, J.A. Holmes, J. G. Wang (ORNL)**

- TH6PFP090 **Adiabatic Formation and Properties of a Quasi-Equilibrium Beam Distribution Matched to a Periodic Focusing Lattice – M. Dorf, R.C. Davidson, H. Qin, E. Startsev (PPPL)**
- TH6PFP091 **Non-Abelian Courant-Snyder Theory for Coupled Transverse Dynamics of Charged Particles in Electromagnetic Focusing Lattices – H. Qin, R.C. Davidson (PPPL)**
- TH6PFP092 **SuperB Factory Dynamic Aperture Study and Optimization – E.B. Levichev, P.A. Piminov (BINP SB RAS) M.E. Biagini, P. Raimondi, M. Zobov (INFN/LNF) D. Quatraro (CERN) W. Wittmer, G. Yocky (SLAC)**
- TH6PFP093 **Study of the Nonlinear Beam Dynamics in Storage Ring with Strong Damping and Space Charge – E.B. Levichev, P.A. Piminov, D.N. Shatilov (BINP SB RAS)**
- TH6PFP094 **SPEAR3 Nonlinear Dynamics Tracking and Measurements – J.A. Safranek, W.J. Corbett, X. Huang, J.J. Sebek, A. Terebilo (SLAC)**
- TH6PFP095 **Linear and Non-Linear Model Optimisation for SOLEIL Storage Ring – M.-A. Tordeux, P. Brunelle, A. Loulergue, A. Nadji, L.S. Nadolski (SOLEIL)**
- TH6PFP096 **Analytical Calculation of the Smear for Long-Range Beam-Beam Interactions – D. Kaltchev (TRIUMF) W. Herr (CERN)**
- TH6PFP097 **Beam Dynamics Optimization of the TRIUMF e-Linac Injector – M. Marchetto, R.A. Baartman, Y.-C. Chao, S.R. Koscielniak, R.E. Laxdal, F. Yan (TRIUMF) N. Vaishali (DAE/VECC)**
- TH6PFP098 **Studies of the  $\nu_r=3/2$  Resonances in the TRIUMF Cyclotron – Y.-N. Rao, G. Dutto, L.W. Root (TRIUMF)**
- TH6PFP099 **Fast, Accurate Calculation of Dynamical Maps from Magnetic Field Data Using Generalised Gradients – D. Newton (The University of Liverpool) D. Newton, A. Wolski (Cockcroft Institute)**
- TH6PFP100 **Computation of Transfer Maps from Surface Data with Applications to LHC Quadrupoles and ILC Damping Ring Wigglers – C.E. Mitchell (UMD)**

Thursday, May 7 14:00 – 18:00  
Hyatt Regency Vancouver, Regency E&F

**TH6RE — Afternoon Poster Session**  
*Instrumentation T03, T05, T23*

- TH6REP001 Development of Screen Beam-Profile-Monitor System for High Energy Beam-Transport Line at the HIMAC – N. Saito-tome, T. Furukawa, T. Inaniwa, Y. Iwata, T. Kanai, A. Nagano, K. Noda, S. Sato, T. Shirai (NIRS)**
- TH6REP002 Independent Component Analysis Applied for Turn by Turn Beam Position Analysis in the TLS – P.C. Chiu, K.T. Hsu (NSRRC)**
- TH6REP003 Orbit Stability Observation of the Taiwan Light Source – P.C. Chiu, K.T. Hsu, K.H. Hu, C.H. Kuo (NSRRC)**
- TH6REP004 The Unstable of Light Beam Line is Diagnosed by the Mask Hardware Design – F.-T. Chung (NSRRC)**
- TH6REP005 The Design of Beam Diagnostic Components Installed in TPS Vacuum System – H.P. Hsueh, C.-C. Chang, Y.-B. Chen, P.J. Chou, G.-Y. Hsiung, S-N. Hsu (NSRRC) J.-R. Chen (National Tsing Hua University)**
- TH6REP006 Correlation Study between Beam Stability Observed by Electron BPMs and Photon Monitors – K.H. Hu, J. Chen, K.T. Hsu, C.H. Kuo (NSRRC)**
- TH6REP007 X-Ray Beam-Position Monitor for the IASW Beamline – C.K. Kuan, C.L. Chen, G.-Y. Hsiung, I.C. Sheng (NSRRC) J.-R. Chen (National Tsing Hua University)**
- TH6REP008 New BPM System and its Related Diagnostic Tools for the Taiwan Light Source – C.H. Kuo, P.C. Chiu, K.T. Hsu, K.H. Hu (NSRRC)**
- TH6REP009 Fast Orbit Feedback System Commissioning of the Taiwan Light Source – C.H. Kuo, P.C. Chiu, K.T. Hsu, K.H. Hu (NSRRC)**
- TH6REP010 Proposal for a Non-Interceptive Spatio-Temporal Correlation Monitor – T.J. Maxwell (Northern Illinois University)**
- TH6REP011 Longitudinal Beam Diagnostics for the ILC Injectors and Bunch Compressors – P. Plot, V. Demir, T.J. Maxwell, M.M. Rihouai (Northern Illinois University) C.-J. Jing (Euclid TechLabs, LLC) J.G. Power (ANL)**
- TH6REP012 Low-Energy Emittance Studies with the New SNS Allison Scanner – M.P. Stockli, S. Assadi, W. Blokland, T.V. Gorlov, B. Han, C.D. Long, T.R. Pennisi (ORNL)**

- TH6REP013 **Measurement and Detailed Simulation of Beam Losses Caused by Thin Interception Devices (Wire Scanners, Scrapers) at SNS – A.P. Zhukov (ORNL)**
- TH6REP014 **A Simulation Based Thermal Design of a New Current Monitor for the Beam Current Upgrade at the PSI Proton Accelerator – Y. Lee, P.-A. Duperrex, D.C. Kiselev, U. Muller (PSI)**
- TH6REP015 **Visual Monitor for Near-Target Beam Diagnostics – K. Thomassen (PSI)**
- TH6REP016 **Analysis of Contribution from Edge Radiation to Optical Diffraction Radiation – C. Liu (PKU/IHIP) P. Evtushenko, A. Freyberger (JLAB) C. Liu (CASA) A.H. Lumpkin (Fermilab)**
- TH6REP017 **Beam Energy Diagnostic and Feedback System for the Top-Up Operation at the PLS Linear Accelerator – S.-C. Kim, Y.J. Han, W.H. Hwang, K.R. Kim, S.H. Kim, S.H. Nam, C.D. Park, S.S. Park, S.J. Park (PAL)**
- TH6REP018 **Blade-Type Photon-Beam-Position-Monitor in PLS – C. Kim, H. J. Choi, Y.J. Han, J.Y. Huang, S. N. Kim (PAL)**
- TH6REP019 **A Real-Time Fill-Pattern Measurement System at the Pohang Light Source – J.W. Lee, E.-H. Lee, S.J. Park, J.C. Yoon (PAL)**
- TH6REP020 **A Single-Shot, Bunch Length Diagnostic Using Coherent Terahertz Radiation Interferometry – G. Andonian, S. Boucher, A.Y. Murokh, M. Ruelas (RadiaBeam) G. Travish (UCLA)**
- TH6REP021 **A Practical Method to Reduce COTR Background in OTR Beam Profile Measurements – A.Y. Murokh (RadiaBeam) E. Hemsing, J.B. Rosenzweig (UCLA)**
- TH6REP022 **Beam Orbit Tilt Monitor Studies at ATF2 – D. Okamoto (RCNS) Y. Honda (KEK) T. Sanuki (Tohoku University, School of Science)**
- TH6REP023 **Micron Size Laser-Wire System at the ATF Extraction Line, Recent Results and ATF-II Upgrade – A.S. Aryshev, V. Karataev (JAI) G.A. Blair, S.T. Boogert, G.E. Boorman, A. Bosco, L. Deacon (Royal Holloway, University of London) L. Corner, N. Delerue, B. Foster, F. Gannaway, D.F. Howell, L.J. Nevay, M. Newman, R. Senanayake, R. Walczak (OXFORDphysics) H. Hayano, K. Kubo, N. Terunuma, J. Urakawa (KEK)**
- TH6REP024 **A Proposal of a Single Coupler Cavity Beam Position Monitor – A. Lyapin (UCL) S.T. Boogert (Royal Holloway, University of London)**
- TH6REP025 **Development of the S-Band BPM System for ATF2 – A. Lyapin, B. Maiheu, M. Wing (UCL) R.C.D. Ainsworth, S.T. Boogert, G.E. Boorman, S. Molloy (Royal Holloway, University of London) A. Heo, E.-S. Kim, H.-S. Kim (Kyungpook National University) Y. Honda, T. Tauchi, N. Terunuma (KEK) D.J. McCormick,**

*J. Nelson, G.R. White (SLAC) S. Shin (Fermilab) D.R. Ward (University of Cambridge)*

- TH6REP026 An Ultra-Fast Laserwire Scanner Based on Electro-Optics – A. Bosco, G.A. Blair, S.T. Boogert, G.E. Boorman (Royal Holloway, University of London)**
- TH6REP027 A Two-Dimensional Laserwire Scanner for the Petra III Accelerator – A. Bosco, G.A. Blair, S.T. Boogert, G.E. Boorman (Royal Holloway, University of London) E. Elsen, V. Gharibyan, S. Schreiber, K. Wittenburg (DESY)**
- TH6REP028 Development of the C-Band BPM System for ATF2 – S. Molloy, S.T. Boogert (Royal Holloway, University of London) Y. Honda, T. Tauchi, N. Terunuma (KEK) J.Y. Huang, W.H. Hwang, S.H. Kim, S.J. Park, Y.J. Park (PAL) A. Lyapin (UCL) J. May, D.J. McCormick, J. Nelson, T.J. Smith, G.R. White (SLAC)**
- TH6REP029 Accelerator Physics Activity at the VEPP-4M Collider – E.B. Levichev, V.E. Blinov, A.V. Bogomyagkov, S.E. Karnaev, G.V. Karpov, V.A. Kiselev, O.I. Meshkov, S.A. Nikitin, I.B. Nikolaev, E.A. Simonov, V.V. Smaluk, A.N. Zhuravlev (BINP SB RAS)**
- TH6REP030 Beam Measurement System for VEPP-2000 – Yu.A. Rogovsky (BINP SB RAS)**
- TH6REP031 Calibration of the Beam Position Monitors for VEPP-2000 – Yu.A. Rogovsky (BINP SB RAS)**
- TH6REP032 Fast-Gated Camera Measurements in SPEAR3 – W.X. Cheng, W.J. Corbett, A.S. Fisher (SLAC) W.Y. Mok (Life Imaging Technology)**
- TH6REP033 Interferometer for Beam Size Measurements in SPEAR3 – W.J. Corbett, W.X. Cheng, A.S. Fisher, E. Irish (SLAC) T.M. Mitsuhashi (KEK) W.Y. Mok (Life Imaging Technology)**
- TH6REP034 Evaluation of Bergoz Instrumentation NPCT at SPEAR3 – D.J. Martin, R.O. Hettel, J.J. Sebek (SLAC)**
- TH6REP035 Beam Diagnostic by Outside Beam Chamber Fields – A. Novokhatski, S.A. Heifets (SLAC) A.V. Aleksandrov (ORNL)**
- TH6REP036 LCLS Stripline BPM System Commissioning – S.R. Smith, R.G. Johnson, E. A. Medvedko (SLAC)**
- TH6REP037 Radiation of a Charge Crossing the Left-Handed Medium Boundary and Prospect of its Application to Beam Diagnostics – A.V. Tyukhtin, T.Yu. Alekhina, E.G. Dol'nitsina, S.N. Galyamin (Saint-Petersburg State University)**
- TH6REP038 High Precision Beam Energy Measurement with Cherenkov Radiation in an Anisotropic Dispersive Metamaterial Loaded Waveguide – A.V. Tyukhtin (Saint-Petersburg State University) S.P. Antipov (ANL) A. Kanareykin, P. Schoessow (Euclid Tech-Labs, LLC)**

- TH6REP039 **OTR Monitors for the IFUSP Microtron – T.F. Silva, R. Lima, A.A. Malafronte, M.N. Martins, A.J. Silva, V.R. Vanin (USP/LAL)**
- TH6REP040 **Electron Beam Profile Determination: The Influence of Charge Saturation in Phosphor Screens – T.F. Silva, Z.O. Guimarães-Filho, C. Jahnke, M.N. Martins (USP/LAL)**
- TH6REP041 **Maximum-Entropy-Based Tomographic Reconstruction of Beam Density Distribution – Y.-N. Rao, R.A. Baartman (TRI-UMF) G. Goh (SFU)**
- TH6REP042 **Development Status of a Beam Monitor System at XFEL/ SPring-8 – Y. Otake (RIKEN Spring-8 Harima) H. Ego, H. Tomizawa, K. Yanagida (JASRI/SPring-8) A. Higashiyama, S.I. Inoue, H. Maesaka, S.M. Matsubara, T. Ohshima, T. Shintake, M. Yabashi (RIKEN/SPring-8)**
- TH6REP043 **Beam Diagnostics for the USR – J. Harasimowicz, M. Putignano (The University of Liverpool) J. Harasimowicz, C.P. Welsch (Cockcroft Institute) K.-U. Kuehnel (MPI-K)**
- TH6REP044 **DITANET – An Overview of the First Year Achievements – C.P. Welsch (The University of Liverpool) C.P. Welsch (Cockcroft Institute)**
- TH6REP045 **Developments of 3-D EO Bunch Shape Monitor for XFEL/ SPring-8 – A. Maekawa, M. Uesaka (The University of Tokyo, Nuclear Professional School) H. Tomizawa (JASRI/SPring-8)**
- TH6REP046 **Reduction of Systematic Errors in Diagnostic Receivers through the Use of Balanced Dicke-Switching and Y-Factor Noise Calibrations – J. Musson, T.L. Allison, R. J. Flood (JLAB)**
- TH6REP047 **Application of Goubau Surface Wave Transmission Line for Improved Bench Testing of Diagnostic Beamline Elements – J. Musson, K.E. Cole (JLAB)**
- TH6REP048 **A Real-Time System For Measuring Beam Spot Size of Linac Using Thick Pinhole Imaging – D.T. Bin (TUB)**
- TH6REP049 **Advanced Longitudinal Diagnostic for Single-Spike SASE Operation at the SPARC FEL – G. Marcus, G. Andonian, S. Reiche, J.B. Rosenzweig (UCLA) M. Ferrario, L. Palumbo (INFN/ LNF) L. Giannessi (ENEA C.R. Frascati)**
- TH6REP050 **Studies of Aerogel Optical Properties for CCR Diagnostics – R. Tikhoplav, A. Knyazik, J.B. Rosenzweig (UCLA) G. Andonian, M. Ruelas (RadiaBeam)**
- TH6REP051 **Status of the MICE Tracker System – L. Coney (UCR)**
- TH6REP052 **MICE Beamline Instrumentation – L. Coney (UCR) A.D. Bross, G.W. Sellberg, M.J. Utter (Fermilab)**

- TH6REP053 **Determination of True RMS Emittance from OTR Measurements – C. F. Papadopoulos, R.B. Fiorito, P.G. O’Shea, A.G. Shkvarunets (UMD) M.E. Conde, W. Gai, J.G. Power (ANL)**
- TH6REP054 **Calibration of Quadrupole Component of Beam Position Monitor at HLS LINAC – J. Fang, P. Li, P. Lu, Q. Luo, B. Sun, X.H. Wang (USTC/NSRL)**
- TH6REP055 **Signal Processing Methods for the Staggered Pair Photon Beam Position Monitor – L.M. Gu, S.F. Lin, P. Lu, C.B. Shen, B. Sun (USTC/NSRL)**
- TH6REP056 **Study on Depolarization Time of Resonant Depolarization Experiment – J.Q. Lan, H. Xu (USTC/NSRL)**
- TH6REP057 **Measurement of BPM Chamber Motion in HLS – J.W. Li, Y. Cao, C. Li, P. Lu, B. Sun (USTC/NSRL)**
- TH6REP058 **Racetrack Cavity BPM for a New Injector at HLS – Q. Luo, D.H. He, B. Sun (USTC/NSRL)**
- TH6REP059 **Single Bunch Longitudinal Measurement at HLS – B.Y. Wang, P. Lu, T.J. Ma, B. Sun, J.G. Wang (USTC/NSRL)**
- TH6REP060 **Beam Parameters Measurement with a Streak Camera in HLS – J.G. Wang, B. Sun, B.Y. Wang, H. Xu (USTC/NSRL)**
- TH6REP061 **Design of Beam Measurement System for High Brightness Injector in HLS – X.H. Wang, J. Fang, P. Lu, Q. Luo, B. Sun, J.G. Wang (USTC/NSRL)**
- TH6REP062 **Status of the First Commissioning of the Shintake Monitor for ATF2 – T. Yamanaka, S. Komamiya, M. Orouku, T.S. Suehara (University of Tokyo) Y. Honda, T. Kume, T. Tauchi, N. Terunuma (KEK) Y. Kamiya (ICEPP)**
- TH6REP063 **Deflecting Mode Optimization for a High Energy Beam Diagnostic Tool – P. Craievich (ELETTRA) M. Petronio (DEEI)**
- TH6REP064 **Measuring Betatron Tunes with Driven Oscillations – R.A. Bosch (UW-Madison/SRC)**
- TH6REP065 **Commissioning of the Bunch-to-Bunch Feedback System at the Advanced Photon Source – C. Yao, N.P. Di Monte, W.E. Norum (ANL)**
- TH6REP066 **Growth/Damp Measurements and Bunch-by-Bunch Diagnostics on the Australian Synchrotron Storage Ring – D.J. Peake, R.P. Rassool (Melbourne) M.J. Boland, G. LeBlanc (ASCo)**
- TH6REP067 **Design of the Brazilian Synchrotron Light Source Digital Multi-Bunch Feedback System – S.R. Marques, R.H.A. Farias, L. Sanfelici, P.F. Tavares (LNLS)**

- TH6REP068 **Bunch Cleaning at the Canadian Light Source – J.M. Vogt,**  
*J.C. Bergstrom, S. Hu (CLS) P.L. Lemut, V. Poucki (Instrumentation Technologies)*
- TH6REP069 **Measurements of Coupled-Bunch Instabilities in BEPC-II – D. Teytelman** (Ditmel) *J.M. Byrd (LBNL) J. Cao, J. Yue (IHEP Beijing)*
- TH6REP070 **Development and Commissioning of Bunch-by-Bunch Longitudinal Feedback System for Duke Storage Ring – W. Wu,**  
*M.D. Busch, J. Li, G. Swift, P. Wang, Y.K. Wu (FEL/Duke University) Y. Kim (PSI) I.S. Ko, I.S. Park (PAL) D. Teytelman (SLAC)*
- TH6REP071 **SuperB Fast Feedback Systems – A. Drago** (INFN/LNF)
- TH6REP072 **DAFNE Horizontal Feedback Upgrade – A. Drago** (INFN/LNF)
- TH6REP073 **Tune Locked Bunch Cleaning with Bunch-by-Bunch Feedback at the SPring-8 Booster Synchrotron – T. Nakamura,**  
*T. Aoki, K. Fukami, K. Kobayashi, M. Shoji, H. Yonehara (JASRI/SPring-8)*
- TH6REP074 **Development of a Fast Micron-Resolution Beam Position Monitor Signal Processor for Linear Collider Beam-Based Feedback Systems – P. Burrows,** R. Apsimon, C.I. Clarke, B. Constance, H. Dabiri Khah, A.F. Hartin, C. Perry, J. Resta-López, C. Swinson (JAI) G.B. Christian (ATOMKI) A. Kalinin (STFC/DL/ASTeC)
- TH6REP075 **Design and Performance of Intra-Train Feedback Systems at ATF2 – J. Resta-López, P. Burrows (JAI)**
- TH6REP076 **Hardware-Based Fast Communications for Feedback Systems – L.R. Doolittle,** A. Ratti, C. Serrano, A. Vaccaro (LBNL)
- TH6REP077 **Radiation Hardness Testing of PMD Scientific Inc. Electrochemical Seismometer for Linear Colliders – J.W. Amann,** T.V.M. Maruyama, A. Seryi, C.M. Spencer (SLAC) I.A. Abramovich (PMD SCIENTIFIC, INC.)
- TH6REP078 **Feedback Techniques and SPS Ecloud Instabilities - Design Estimates – J.D. Fox,** T. Mastorides, C.H. Rivetta, D. Van Winkle, J. Xu (SLAC) J.M. Byrd (LBNL) W. Höfle, G. Rumolo (CERN) R. de Maria (BNL)
- TH6REP079 **Development and Status of Transverse Bunch by Bunch Feedback System at SOLEIL – R. Nagaoka,** J.-M. Filhol, M.-P. Level, C. Mariette, R. Sreedharan (SOLEIL)
- TH6REP080 **Beam Position Orbit Stability Improvement at SOLEIL – L.S. Nadolski,** L. Cassinari, J.P. Daguerre, J. Denard, J.-M. Filhol, N. Hubert, N. Leclercq, A. Nadji (SOLEIL)
- TH6REP081 **Calculation and Simulation of the Stripline Kicker Used in HLS – Y.B. Chen** (USTC/NSRL)

- TH6REP082 **Experiment of Transverse Feedback System at HLS – J.H. Wang, Y.B. Chen, W. Li, L. Liu, M. Meng, B. Sun, L. Wang, Y.L. Yang, Z.R. Zhou (USTC/NSRL) J. Cao, J. Yue (IHEP Beijing) D.K. Liu (SINAP) L. Ma (IHEP Beijing) K.R. Ye (SSRF)**
- TH6REP083 **Commissioning of the HLS Analog TFB System – Y.L. Yang, Y.B. Chen, G. Cheng, W. Li, L. Liu, M. Meng, J.H. Wang, L. Wang, Z.R. Zhou (USTC/NSRL)**
- TH6REP084 **Commissioning of the Digital Transverse Bunch-by-Bunch Feedback System for the HLS – Z.R. Zhou, Y.B. Chen, M. Meng, B. Sun, J.H. Wang, L. Wang, Y.L. Yang (USTC/NSRL) K. Kobayashi, T. Nakamura (JASRI/SPring-8)**
- TH6REP085 **Design and Analysis of a Mixed-Signal Feedback Damper System for Controlling Electron-Proton Instabilities – Z.P. Xie, M.J. Schulte (UW-Madison) C. Deibebe (ORNL)**
- TH6REP086 **A Stable Phase Reference for the APS Short-Pulse X-Ray Project – F. Lenkszus, R. Laird (ANL)**
- TH6REP087 **Firmware Development for SNS New Timing Master – R. Stefanic, J. Dedic (Cosylab) D. Curry (ORNL RAD) D.H. Thompson (ORNL)**
- TH6REP088 **Different Methods for Long-term Femtosecond Stable RF Signal Generation from Optical Pulse Trains – M. Felber, V. R. Arsov, P. Gessler, K.E. Hacker, F. Loehl, F. Ludwig, K.-H. Matthiesen, H. Schlarb, B. Schmidt, A. Winter (DESY) S. Schulz, J. Zemella (Uni HH)**
- TH6REP089 **A Pico-Second Stable and Drift Compensated High-Precision and Low-Jitter Clock and Trigger Distribution System for the European XFEL Project – P. Gessler, K. Rehlich (DESY) C. Bohm, A. Hidvegi (Stockholm University)**
- TH6REP090 **Laser Timing Jitter Measurements Using a Dual-Sweep Streak Camera at the A0 Photoinjector – J. Ruan, A.H. Lumpkin, J.K. Santucci (Fermilab)**
- TH6REP091 **All-Optical Synchronization of Distributed Laser Systems at FLASH – S. Schulz, L.-G. Wissmann, J. Zemella (Uni HH) V. R. Arsov, M. Felber, P. Gessler, K.E. Hacker, F. Loehl, F. Ludwig, K.-H. Matthiesen, H. Schlarb, B. Schmidt, A. Winter (DESY)**
- TH6REP092 **Remote Synchronization of Laser Systems for the LCLS – J.M. Byrd, L.R. Doolittle, G. Huang, A. Ratti, J.W. Staples, R.B. Wilcox (LBNL) J.C. Frisch, G.R. Hays, W.E. White (SLAC)**
- TH6REP093 **ALS Top Off Injection User Gating System – J.M. Weber, B.J. Bailey, M.J. Chin, F. Sannibale, M. Vinco (LBNL)**
- TH6REP094 **Laser Jitter Measurement for the NSRRC Photoinjector System – C.C. Liang, J.H. Chen, C.S. Chou, K.T. Hsu, W.K. Lau, A.P. Lee, S.H. Lee (NSRRC)**

- TH6REP095 **Status and Upgrade for Top-Up Operation of Timing System at the PLS – *M.-H. Chun, K.M. Ha, J.H. Kim, B.R. Park (PAL)***
- TH6REP096 **Timing System for the FIR Linac – *B.R. Park, H.-S. Kang, C. Kim, C.D. Park, I.H. Yu (PAL)***
- TH6REP097 **Low Phase-Noise, Low Jitter Master Oscillator for the LCLS Cavity BPM System – *A. Young (SLAC)***
- TH6REP098 **Preinjector Gun Upgrade, Timing and Synchronization and Preparation for the Top-Up Injection in Elettra – *A. Carniel, S. Bassanese, E. Karantzoulis, C. Scafuri, A. Vascotto (ELETTRA)***
- TH6REP099 **The Beam Pick-Up Based Timing System in ATLAS – *C. Ohm (Stockholm University) T. Pauly (CERN)***
- TH6REP100 **The CEBAF Master Oscillator and Distribution Remodeling – *T. E. Plawski, C. Hovater, J. Musson (JLAB)***
- TH6REP101 **Experimental Characterization of Timing Jitter at the NSLS SDL – *H.J. Qian (TUB) Y. Hidaka, J.B. Murphy, B. Podobedov, H.J. Qian, S. Seletskiy, Y. Shen, X.J. Wang, X. Yang (BNL)***
- TH6REP102 **Electro-Optic Synchronization for the UCLA Pegasus Ultrafast Electron Diffraction Experiment – *C.M. Scoby, M.S. Gutierrez, J.T. Moody, P. Musumeci (UCLA)***

Friday, May 8 08:30 – 12:30  
Hyatt Regency Vancouver, Plaza Foyer

**FR5PF — Morning Poster Session**  
*Beam Dynamics and EM Fields D01, D03, D05*

- FR5PFP001 **PAMELA Lattice Design and Performance** – **S.L. Sheehy**, K.J. Peach, H. Witte, T. Yokoi (JAI) D.J. Kelliher, S. Machida (STFC/RAL/ASTeC)
- FR5PFP002 **Straight Section in Scaling FFAG Accelerator** – **Y. Mori** (KEK) J.-B. Lagrange (KURRI)
- FR5PFP003 **Harmonic Number Jump Acceleration in Scaling FFAG Accelerator** – **Y. Mori** (KEK) T. Planche (KURRI)
- FR5PFP004 **Orbit Reconstruction, Correction, Stabilization and Monitoring in the ATF2 Extraction Line** – **Y. Renier**, P. Bambade (LAL) K. Kubo (KEK) J. Resta-López (JAI) A. Scarfe (UMAN) G.R. White (SLAC)
- FR5PFP005 **Coupling Correction in ATF2 Extraction Line** – **C. Rimbault**, P. Bambade (LAL) S. Kuroda (KEK) G.R. White, M. Woodley (SLAC)
- FR5PFP006 **Linear Optics Calculations and Measurements in Cornell ERL Injector** – **C.M. Gulliford** (CESR-LEPP) I.V. Bazarov (CLASSE) A.K. Kim (Cornell University, Laboratory for Elementary-Particle Physics)
- FR5PFP007 **Analytic Solution of the Envelope Equations for an Undepressed Matched Beam in a Quadrupole Doublet Channel** – **O.A. Anderson** (LBNL) L.L. LoDestro (LLNL)
- FR5PFP008 **Beam Centroid Oscillations in Solenoidal Transport Channels** – **S.M. Lund**, J.E. Coleman, S.M. Lidia, P.A. Seidl, C.J. Wootton (LBNL)
- FR5PFP009 **Finding the Center of Sextupole Magnets Empirically** – **G.J. Portmann**, C. Steier (LBNL)
- FR5PFP010 **Using Novel Injection Schemes for Enhanced Storage Ring Performance** – **D. Robin** (LBNL)
- FR5PFP011 **Linear Optics of a Solenoid with Off-Axis Orbit** – **W. Wan**, A. Zholents (LBNL)
- FR5PFP012 **Orbit Response Matrix Measurements in the Los Alamos Proton Storage Ring** – **J.S. Kolski**, R.J. Macek, R.C. McCrady, T. Spickermann (LANL) **J.S. Kolski** (IUCF)
- FR5PFP013 **An Update of the USR Lattice: Towards a True Multi-User Experimental Facility** – **A.I. Papash** (MPI-K) C.P. Welsch (Cockcroft Institute)

- FR5PFP014 **Errors in Beam Emittance Measurement in a Transport Channel – Y.K. Batygin (NSCL) M. Woodley (SLAC)**
- FR5PFP015 **An Achromatic Mass Separator Design for Ions from the NSCL EBIT Charge Breeder – M. Portillo, G. Bollen, S. Chouhan, O.K. Kester, G. Machicoane, J. Ottarson, S. Schwarz, A. Zeller (NSCL)**
- FR5PFP016 **Parametric Channeling and Collapse of Charged Particles Beams in Focusing Fields – M.V. Vysotskyy, V.I. Vysotskii (National Taras Shevchenko University of Kyiv, Radiophysical Faculty)**
- FR5PFP017 **Dispersion-Leak Lattice for PLS – H.-S. Kang, J. Choi, D.E. Kim, K.R. Kim, M. Kim, T.-Y. Lee (PAL)**
- FR5PFP018 **Experimental Studies of Random Error Effects in High-Intensity Accelerators Using the Paul Trap Simulator Experiment (PTSX) – M. Chung (Fermilab) M. Chung, R.C. Davidson, P. Efthimion, E.P. Gilson, R. M. Majeski (PPPL)**
- FR5PFP019 **Envelope-like Equations for Wobbling and Tumbling Beams – H. Qin, R.C. Davidson (PPPL)**
- FR5PFP020 **Emittance Exchange at the A0 Photoinjector – T.W. Koeth (Rutgers University, The State University of New Jersey) H.T. Edwards, A.S. Johnson, A.H. Lumpkin, J. Ruan, R. Thurman-Keup (Fermilab) R.P. Fliller (BNL)**
- FR5PFP021 **Plans and Progress towards Tuning the ATF2 Final Focus System to Obtain a 35nm IP Waist – G.R. White (SLAC) J.K. Jones (STFC/DL/ASTeC) K. Kubo, S. Kuroda (KEK) Y. Renier (LAL) A. Scarfe (UMAN) R. Tomas (CERN)**
- FR5PFP022 **Proton Storage Ring Optics Modeling with ac-Driven Betatron Motion – Y.T. Yan, A. Chao (SLAC) M. Bai (BNL)**
- FR5PFP023 **Quantum Aspects of Accelerator Optics – S.A. Khan (SCOT)**
- FR5PFP024 **Quantum Methodologies in Light Beam Optics – S.A. Khan (SCOT)**
- FR5PFP025 **Extending the Energy Range of 50Hz Proton FFAGs – S.J. Brooks (STFC/RAL/ASTeC)**
- FR5PFP026 **Beam Transport Line with a Scaling FFAG Type Magnet – S. Machida (STFC/RAL/ASTeC)**
- FR5PFP027 **Extended ALICE Injector – B.D. Muratori, J.W. McKenzie, Y.M. Saveliev (STFC/DL/ASTeC)**
- FR5PFP028 **Linear Optics Calibrations for the SSRF Storage Ring Based on COD – L.G. Liu (SSRF)**
- FR5PFP029 **Storage Ring Beam Dynamics Modeling with Limited Instrumentation – C. Kwankasem, S. Chunjarean (SLRI) H. Wiedemann (SLAC)**

- FR5PFP030 **Cyclotron Matching Injection Optics Optimization – R.A. Baartman (TRIUMF)**
- FR5PFP031 **Possible Limitations in Coupling Correction Using Orbit Response Matrix Analysis – K.G. Panagiotidis (The University of Liverpool) K.G. Panagiotidis, A. Wolski (Cockcroft Institute)**
- FR5PFP032 **Beam Transportation and Diagnostics of Mini-LIA – C. Cheng (TUB)**
- FR5PFP033 **The Simulation Study of the Fringing Field Effect on a Compact Storage Ring – D.D. Yang, W.-H. Huang (TUB)**
- FR5PFP034 **Optical Stochastic Cooling in a Compact Storage Ring – P.-CH. Yu, W.-H. Huang, X. Shen (TUB)**
- FR5PFP035 **6D Cooling Simulations for the Muon Collider – P. Snopok (UCR)**
- FR5PFP036 **Close Orbit Correction of Hefei Advanced Light Source (HALS) Storage Ring – G. Feng (USTC/NSRL)**
- FR5PFP037 **Adiabatic Thermal Beam Equilibrium in an Alternating-Gradient Focusing Field – J.Z. Zhou, C. Chen, K.R. Samokhvalova (MIT/PSFC)**
- FR5PFP038 **Possible Emittance Growth due to Nonuniform Particle Distribution in Beams with Thermal Equilibrium Condition – T. Kikuchi (Nagaoka University of Technology) K. Horioka (TIT)**
- FR5PFP039 **Verification of the AWA Photoinjector Beam Parameters Required for a Transverse-to-Longitudinal Emittance Exchange Experiment – M.M. Rihaoui, P. Piot (Northern Illinois University) W. Gai, J.G. Power (ANL)**
- FR5PFP040 **Measurement and Simulation of Space Charge Effects in a Multi-Beam Electron Bunch from an RF Photoinjector – M.M. Rihaoui, P. Piot (Northern Illinois University) W. Gai, J.G. Power, Z.M. Yusof (ANL)**
- FR5PFP041 **ORBIT Benchmark of Extraction Kicker Instability Observed in SNS – J.A. Holmes, S.M. Cousineau, V.V. Danilov (ORNL) Z. Liu (IUCF)**
- FR5PFP042 **Approximate Matched Solution of Intense Charged Particle Beam Propagating through Periodic Quadrupole Focusing Lattice – E. Startsev, R.C. Davidson, M. Dorf (PPPL)**
- FR5PFP043 **Matching with Space Charge #2 – S.B. van der Geer (Pulsar Physics) D.J. Holder, B.D. Muratori (STFC/DL/ASTeC) M.J. de Loos, S.B. van der Geer (TUE)**
- FR5PFP044 **Studies of Space Charge Loss Mechanisms Associated with Half Integer Resonance on the ISIS RCS – C.M. Warsop, D.J. Adams, B.G. Pine (STFC/RAL/ISIS)**

- FR5PFP045 **Code Development and Space Charge Studies for ISIS Upgrades – *B.G. Pine, D.J. Adams, C.M. Warsop, R.E. Williamson* (STFC/RAL/ISIS)**
- FR5PFP046 **Longitudinal Dynamics Studies for ISIS Upgrades – *R.E. Williamson, C.M. Warsop* (STFC/RAL/ISIS)**
- FR5PFP047 **Thermal Control of the Fermi@Elettra Accelerating Sections – *C. Serpico, G. D'Auria, P. Delgiusto* (ELETTRA)**
- FR5PFP048 **Analysis of the CSR Interaction for a 2D Energy-Chirped Bunch on a General Orbit – *R. Li* (JLAB)**
- FR5PFP049 **Effects of Transverse Physics on Nonlinear Evolution of Longitudinal Space-Charge Waves in Beams – *K. Tian* (JLAB) *I. Haber, R.A. Kishen, P.G. O'Shea, M. Reiser* (UMD) *D. Stratakis* (BNL)**
- FR5PFP050 **An Analytical Characterization of Initially Non-Homogeneous Matched Beams at Equilibrium – *R.P. Nunes, F.B. Rizzato* (IF-UFRGS)**
- FR5PFP051 **The Influences of Initially Induced Inhomogeneity over the Dynamics of Mismatched Intense Charged Beams – *R.P. Nunes, L.C. Martins* (IF-UFRGS)**
- FR5PFP052 **On the Time Scale of Halo Formation in Homogeneous Mismatched Beams – *R.P. Nunes, F.B. Rizzato* (IF-UFRGS)**
- FR5PFP053 **Centroid Dynamics of Magnetically Focused Intense Relativistic Charged Beams Surrounded by a Conducting Wall – *R. Pakter, L.C. Martins, F.B. Rizzato* (IF-UFRGS)**
- FR5PFP054 **Relaxation of Intense Inhomogeneous Mismatched Charged Beams – *F.B. Rizzato, A. Endler, R.P. Nunes, R. Pakter, E.G. Souza* (IF-UFRGS)**
- FR5PFP055 **Anisotropic Kinetic and Dynamics Processes in Equipartitioned Beams – *W. Simeoni* (IF-UFRGS)**
- FR5PFP056 **Beam Dynamics and RF Cavity Design of a Standing/Traveling-Wave Hybrid Photoinjector for High Brightness Beam Generation – *A. Fukasawa, H. Badakov, B. D. O'Shea, J.B. Rosenzweig* (UCLA) *D. Alesini, L. Ficcadenti, B. Spataro* (INFN/LNF) *L. Palumbo* (Rome University La Sapienza)**
- FR5PFP057 **Beam Dynamics Simulations of the Velocity Bunching in a Superconducting Linac – *A. Fukasawa, B. D. O'Shea, J.B. Rosenzweig* (UCLA)**
- FR5PFP058 **Longitudinal Beam Bucket Studies for a Space-Charge Dominated Beam – *B.L. Beaudoin, S. Bernal, K. Fiuzza, I. Haber, R.A. Kishen, P.G. O'Shea, M. Reiser, D.F. Sutter, C. Wu* (UMD)**

- FR5PFP059 **Resonance Phenomena over a Broad Range of Beam Intensities in an Electron Storage Ring – S. Bernal, B.L. Beaudoin, M. Cornacchia, K. Fiuza, I. Haber, R.A. Kishek, P.G. O’Shea, M. Reiser, D.F. Sutter, C. Wu (UMD)**
- FR5PFP060 **Modeling Longitudinal Dynamics of High Intensity Beams – K. Fiuza, B.L. Beaudoin, S. Bernal, I. Haber, R.A. Kishek, P.G. O’Shea, M. Reiser, D.F. Sutter (UMD)**
- FR5PFP061 **Matching and Injection of Beams with Space Charge into the University of Maryland Electron Ring (UMER) – R.A. Kishek, B.L. Beaudoin, S. Bernal, K. Fiuza, I. Haber, P.G. O’Shea, C. F. Papadopoulos, M. Reiser, D.F. Sutter, C. Wu (UMD) D. Stratakis (BNL)**
- FR5PFP062 **Halo Regeneration in Intense Charged Particle Beams – C. F. Papadopoulos, I. Haber, R.A. Kishek, P.G. O’Shea, M. Reiser (UMD)**
- FR5PFP063 **Coherent Phenomena over a Broad Range of Beam Intensities in the Electron Storage Ring UMER – D.F. Sutter, B.L. Beaudoin, S. Bernal, M. Cornacchia, K. Fiuza, I. Haber, R.A. Kishek, P.G. O’Shea, M. Reiser, C. Wu (UMD)**
- FR5PFP064 **Analysis of Decoherence Signals at the SLS Storage Ring – K. Manukyan (YSU) M. Boge, A. Streun (PSI) D.K. Kalantaryan, A. Sargsyan, V.M. Tsakanov (CANDLE)**
- FR5PFP065 **The Object Oriented Parallel Accelerator Library (OPAL) – A. Adelmann, Y. Ineichen, C. Kraus, T. Schietinger, M. Wittberger (PSI) S.J. Russell (LANL) J.J. Yang (CIAE)**
- FR5PFP066 **A User-Friendly Code to Model Radiation of High Brightness Beams – G. Andonian, M. Ruelas (RadiaBeam) S. Reiche (UCLA)**
- FR5PFP067 **Acceleraticum: Computer Code for Tracking of Charge Particles in Storage Rings – P.A. Piminov, E.B. Levichev (BINP SB RAS)**
- FR5PFP068 **Wakefield Simulation of CLIC PETS Structure Using Parallel 3D Finite Element Time-Domain Solver T3P – A.E. Candel, A.C. Kabel, K. Ko, L. Lee, Z. Li, C.-K. Ng, G.L. Schussman (SLAC) I. Syratchev (CERN)**
- FR5PFP069 **Parallel 3D Finite Element Particle-in-Cell Simulations with Pic3P – A.E. Candel, A.C. Kabel, K. Ko, L. Lee, Z. Li, C.-K. Ng, G.L. Schussman (SLAC) I. Ben-Zvi, J. Kewisch (BNL)**
- FR5PFP070 **Using Commodity Graphic Processing Units (GPUs) for High-Speed Storage Ring Simulations – A.C. Kabel (SLAC) D.S. Yershov (University of Illinois)**
- FR5PFP071 **Thermal Analysis of SCRF Cavity Couplers Using Parallel Multi-Physics Tools TEM3P – V. Akcelik, K. Ko, L. Lee, Z. Li, C.-K. Ng (SLAC) G. Cheng, R.A. Rimmer, H. Wang (JLAB)**

- FR5PFP072 **Command Line Interface to Tracy Library – *B. Nash* (SLAC)**
- FR5PFP073 **2D Potential for an Elliptical Charge Distribution – *K. Haghghi mood* (PPRC) *M. Aslaninejad* (IPM)**
- FR5PFP074 **Self-Consistent Parallel Multi Bunch Beam-Beam Simulation Using a Grid-Multipole Method – *F.W. Jones* (TRIUMF) *W. Herr, T. Pieloni* (CERN)**
- FR5PFP075 **Benchmarking TRACK against PARMELA in the Design of the TRIUMF e-Linac – *F. Yan, R.E. Laxdal, M. Marchetto* (TRIUMF) *B. Mustapha* (ANL) *V. Naik* (DAE/VECC)**
- FR5PFP076 **Multipacting Simulation in ISAC-II Superconducting Cavities – *M. Gusarova, N.P. Sobenin* (MEPhI) *V. Zvyagintsev* (TRIUMF)**
- FR5PFP077 **Realistic Models for RF Cavities – *D.T. Abell, I.V. Pogorelov, P. Stoltz* (Tech-X)**
- FR5PFP078 **Fringe-Field Effects in Simulations of Non-Scaling FFAGs – *D.T. Abell, G.I. Bell* (Tech-X) *E. Forest* (KEK) *A.G. Ruggiero, D. Trbojevic* (BNL)**
- FR5PFP079 **Highly Accurate Frequency Calculations of Crab Cavities Using the VORPAL Computational Framework – *T.M. Austin* (Tech-X) *L. Bellantoni* (Fermilab) *J.R. Cary* (CIPS)**
- FR5PFP080 **Reduction of the Friction Force in Electron Cooling Systems due to Magnetic Field Errors – *A.V. Sobol, G.I. Bell, D.L. Bruhwiler* (Tech-X) *A.V. Fedotov, V. Litvinenko* (BNL)**
- FR5PFP081 **3D Simulations of Secondary Electron Generation and Transport in a Diamond Electron Beam Amplifier – *R. Busby, J.R. Cary, D.A. Dimitrov* (Tech-X) *I. Ben-Zvi, X. Chang, T. Rao, J. Smedley, Q. Wu* (BNL)**
- FR5PFP082 **Investigation of Charge Gain in Diamond Electron Beam Amplifiers via 3D Simulations – *D.A. Dimitrov, R. Busby, J.R. Cary* (Tech-X) *I. Ben-Zvi, X. Chang, T. Rao, J. Smedley, Q. Wu* (BNL)**
- FR5PFP083 **Accurate and Efficient Study of RF Cavities by Using a Conformal FDTD Method – *M.C. Lin, C. Nieter, D.S. Smithe, P. Stoltz* (Tech-X)**
- FR5PFP084 **Fast Electromagnetic Solver for Cavity Optimization Problems – *P. Messmer, T.M. Austin, J.R. Cary* (Tech-X)**
- FR5PFP085 **Benchmarking Multipacting Simulations in VORPAL – *C. Nieter, C. Roark, P. Stoltz* (Tech-X) *G. Ciovati, K. Tian, H. Wang* (JLAB)**
- FR5PFP086 **HOM Maps of RF Cavities for Particle Tracking Codes – *I.V. Pogorelov, D.T. Abell, P. Stoltz* (Tech-X)**

- FR5PFP087 **Bend-Induced Phase Space Dilution due to Collective Effects in Medium Energy Electron Accelerators – I.V. Pogorelov** (*Tech-X*) *D. Mihalcea (Northern Illinois University)* *P. Piot (Fermilab)*
- FR5PFP088 **New Diffusion Analysis Tools for Beam Beam Simulations – V.H. Ranjbar**, *A.V. Sobol (Tech-X)* *H.J. Kim, T. Sen (Fermilab)*
- FR5PFP089 **Modeling Microwave Transmission in Electron Clouds – S.A. Veitzer**, *P. Stoltz (Tech-X)* *J.M. Byrd (LBNL)* *K.G. Sonnad (FZK)*
- FR5PFP090 **Handling Overlapping Fields within the V-Code Beam Dynamics Simulation Tool – S. Franke**, *W. Ackermann, T. Weiland (TEMF, TU Darmstadt)*
- FR5PFP091 **Wakefield Computations with the PBCI Code Using a Non-Split Finite Volume Technique – E. Gjonaj**, *T. Lau, T. Weiland (TEMF, TU Darmstadt)*
- FR5PFP092 **Spacecharge Models in the General Particle Tracer (GPT) Code – M.J. de Loos**, *O.J. Luiten (TUE)* *M.J. de Loos, S.B. van der Geer (Pulsar Physics)*
- FR5PFP093 **Applications of a New Code to Compute Transfer Maps and Describe Synchrotron Radiation in Arbitrary Magnetic Fields – D. Newton** (*The University of Liverpool*) *D. Newton, A. Wolski (Cockcroft Institute)*
- FR5PFP094 **Enhanced Methods for Cavity Impedance Calculations – F. Marhauser**, *R.A. Rimmer, K. Tian, H. Wang (JLAB)*
- FR5PFP095 **Simulation of Electron Beam Polarization by Multiple Compton Scattering – P.-CH. Yu**, *W.-H. Huang, Y. Wang (TUB)*
- FR5PFP096 **Updates to QUINDI: A Code to Simulate Coherent Emission from Bending Systems – D. Schiller** (*UCLA*)
- FR5PFP097 **Implementation of Coupler's RF Kick and Coupler's Wake Field in Lucretia – A. Saini** (*University of Delhi*)
- FR5PFP098 **Self-Consistent Non-Stationary Model for Multipactor Analysis in Dielectric-Loaded Accelerator Structures – O.V. Sinit-syn**, *T.M. Antonsen, R.A. Kishek, G.S. Nusinovich (UMD)*

**FR5RF — Morning Poster Session**

*Advanced Concepts A13, Beam Dynamics and EM Fields D04*

- FR5RFP001 Microwave PASER Experiment at the AWA** – **S.P. Antipov**, W. Gai, O. Poluektov, J.G. Power (ANL) C.-J. Jing, A. Kanareykin, P. Schoessow (*Euclid TechLabs, LLC*) L. Schächter (*Technion*)
- FR5RFP002 Design of a 20.8/35.1 GHz Higher-Order-Mode Dielectric-Loaded Power Extraction Set** – **F. Gao**, W. Gai, W. Liu (ANL) **F. Gao**, T. Wong (*Illinois Institute of Technology*) C.-J. Jing (*Euclid TechLabs, LLC*)
- FR5RFP003 Optimization of a Truncated Photonic Crystal Cavity for Particle Acceleration** – **C.A. Bauer**, J.R. Cary, G.R. Werner (CIPS)
- FR5RFP004 Generation of Short Proton Bunches in the CERN Accelerator Complex** – **F. Zimmermann**, Y. Papaphilippou (CERN)
- FR5RFP005 Renovation of the KEK PS-Booster as a Digital Accelerator** – **T. Adachi**, Y. Arakida, T. Iwashita, E. Kadokura, M. Kawai, T. Kawakubo, T. Kono, T. Kubo, T. Kubo, H. Nakanishi, K.O. Okamura, H. Someya, K. Takayama, M. Wake (KEK) M. Okamura (BNL) K. Okazaki (*Nippon Advanced Technology Co. Ltd.*)
- FR5RFP006 Transition Radiation Measurement of Channel Guided Laser Plasma Accelerator Electron Beams** – **C. Lin**, A.J. Gonsalves, K. Nakamura, D. Panasenko, C.B. Schroeder (BNL) W. Lee-mans (*University of Nevada, Reno*)
- FR5RFP007 Capture and Control of Laser-Accelerated Proton Beams: Experiment and Simulation** – **F. Nürnberg**, B.G. Logan (BNL) I. Alber, K. Harres, M. Roth, M. Schollmeier (TU Darmstadt) W. Barth, H. Eickhoff, I. Hofmann (GSI) A. Blazevic (GSI Plasma) A. Friedman, D.P. Grote (LLNL)
- FR5RFP008 Optimization and Single-Shot Characterization of Ultrashort THz Pulses from a Laser Wakefield Accelerator** – **G.R.D. Plateau**, E. Esarey, C.G.R. Geddes, W. Leemans, N.H. Matlis, C.B. Schroeder, C. Toth (BNL) O. Albert (LOA)
- FR5RFP009 Spectral Analysis of Betatron Radiation from a Laser Wake-field Accelerator** – **P. Michel**, J. Bonlie, L. Divol, D.H. Froula, S.H. Glenzer, J. Palastro, D. Price, J.E. Ralph, J.S. Ross, C. Siders (LLNL) C.E. Clayton, C. Joshi, K.A. Marsh, A.E. Pak (UCLA) B.B. Pollock, G.R. Tynan (UCSD)
- FR5RFP010 Micro-Fabricated Nanostructured Accelerator Based Neutron Gun** – **C.M. Whitney**, S.M. Pellegrin, C.G. Wilson (Louisiana Tech University)

- FR5RFP011 **Preliminary Study of Proton Driven Plasma Wakefield Acceleration – A. Caldwell, F. Simon, G.X. Xia (MPI-P) K.V. Lotov (BINP SB RAS) A.M. Pukhov (HHUD)**
- FR5RFP012 **Epicyclic Helical Channels for Parametric Resonance Ionization Cooling – A. Afanasev, V. Ivanov, R.P. Johnson, G.M. Wang (Muons, Inc) S.A. Bogacz, Y.S. Derbenev (JLAB)**
- FR5RFP013 **Fabrication of Micro-Scale Metallic and Dielectric Accelerator Structures with Sub-Wavelength Features – E.R. Arab (PBPL) G. Travish, N. Vartanian, J. Xu (UCLA) R.B. Yoder (Manhattanville College)**
- FR5RFP014 **Testing of Laser-Driven Resonant Accelerating-Structures Possessing Sub-Wavelength Periodic Features – N. Vartanian, G. Travish, J. Xu (UCLA) E.R. Arab (PBPL) R.B. Yoder (Manhattanville College)**
- FR5RFP015 **Testing of a Laser-Powered, Slab-Symmetric Dielectric Structure for Medical and Industrial Applications – S. Boucher (RadiaBeam) E.R. Arab, G. Travish, N. Vartanian (UCLA) R.B. Yoder (Manhattanville College)**
- FR5RFP016 **Scaling and Transformer Ratio in a Plasma Wakefield Accelerator – I. Blumenfeld, F.-J. Decker, M.J. Hogan, R. Ischebeck, R.H. Iverson, N.A. Kirby, R. Siemann, D.R. Walz (SLAC) C.E. Clayton, C. Huang, C. Joshi, W. Lu, K.A. Marsh, W.B. Mori, M. Zhou (UCLA) T.C. Katsouleas, P. Muggli, E. Oz (USC)**
- FR5RFP017 **Investigation of a Gas Jet Produced Hollow Plasma Wakefield Accelerator – N.A. Kirby, I. Blumenfeld, M.J. Hogan, R. Siemann, D.R. Walz (SLAC) A.W. Davidson, C. Huang (UCLA)**
- FR5RFP018 **Laser Wakefield Simulation Using a Speed-of-Light Frame Envelope Model – B.M. Cowan, D.L. Bruhwiler, P. Messmer, K. Paul (Tech-X) E. Cormier-Michel, E. Esarey, C.G.R. Geddes (LBNL)**
- FR5RFP019 **Nonlinear Envelope Dynamics of Intense Laser Pulses Propagating in Underdense Plasmas – A. Bonatto, R. Pakter, F.B. Rizzato (IF-UFRGS)**
- FR5RFP020 **Proton Acceleration in CO<sub>2</sub> Laser-Plasma Interactions at Critical Density – D.J. Haberberger, C. Joshi, K.A. Marsh, A.E. Pak, S. Tochitsky (UCLA)**
- FR5RFP021 **Acceleration of an Electron Bunch with Narrow Energy Spread in a PWFA – P. Muggli (UCLA) B.A. Allen (USC) M. Babzien, K. Kusche, J.H. Park, V. Yakimenko (BNL)**
- FR5RFP022 **Generation of Bunch Trains for Plasma Wakefield Accelerator Applications – P. Muggli (UCLA) B.A. Allen (USC) M. Babzien, K. Kusche, J.H. Park, V. Yakimenko (BNL)**
- FR5RFP023 **Design of Photonic Crystal Gap Fiber Accelerator Structures – H.Z. Zhang, C.-F. Wu (USTC/NSRL) Z.P. Li (USTC)**

- FR5RFP024 **Preservation of Ultra Low Emittances in Future High Energy Plasma Wakefield-Based Colliders – *R. Gholizadeh, P. Muggli (USC) C. Huang, W.B. Mori (UCLA) T.C. Katsouleas (Duke University)***
- FR5RFP025 **Simulations of Positron Beams Propagation in Plasmas – *X. Li, P. Muggli (USC)***
- FR5RFP026 **All-Optical Compton Gamma-Ray Source – *K. Koyama, A. Yamazaki (UTNL) T. Hosokai (RLNR) A. Maekawa, M. Uesaka (The University of Tokyo, Nuclear Professional School) M. Miyashita (SUT)***
- FR5RFP027 **The Impact of Beam Spreads on the Acceleration Process at the Electrons "Reflection" from a Supershort Laser Pulse in a Wiggler – *Kh.V. Sedrakian (YSU)***
- FR5RFP028 **The Role of the Photoemission Spectrum in Electron Cloud Generation – *K.C. Harkay, X.W. Dong (ANL) G. Dugan (CLASSE) M.A. Furman (LBNL) M.T.F. Pivi (SLAC)***
- FR5RFP029 **Measurement of the RHIC Abort Kicker Longitudinal Impedance – *N.P. Abreu, E. M. Choi, H. Hahn (BNL)***
- FR5RFP030 **Landau Damping with High Frequency Impedance – *M. Blaskiewicz (BNL)***
- FR5RFP031 **Impedance Calculations for the NSLS-II Storage Ring – *A. Blednykh, S. Krinsky (BNL)***
- FR5RFP032 **Infra-red Extraction Chamber for the NSLS-II Storage Ring – *A. Blednykh, G.L. Carr, D.S. Coburn, S. Krinsky (BNL)***
- FR5RFP033 **Microwave Instability Threshold Simulations for NSLS-II – *A. Blednykh, S. Krinsky, B. Nash, L.-H. Yu (BNL)***
- FR5RFP034 **Transverse Impedance Localization Using Intensity Dependent Optics – *R. Calaga (BNL) G. Arduini, E. Métral, G. Papotti, D. Quatraro, G. Rumolo, B. Salvant, R. Tomas (CERN)***
- FR5RFP035 **Equilibrium Tail Distribution due to Touschek Scattering – *B. Nash, S. Krinsky (BNL)***
- FR5RFP036 **Longitudinal Space Charge Effects near Transition – *E. Pozdeyev (BNL) F. Marti, R.C. York (NSCL) J.A. Rodriguez (CERN)***
- FR5RFP037 **Impedance of CPMU in SLS Storage Ring – *M. Ivanyan, V.M. Tsakanov, A. Vardanyan (CANDLE) M. M. Dehler, A. Streun (PSI)***
- FR5RFP038 **Longitudinal and Transverse Resistive Wake Fields in PSI-XFEL Undulator – *M. Ivanyan, V.M. Tsakanov (CANDLE) M. M. Dehler (PSI) A. Grigoryan (YSU)***
- FR5RFP039 **Resonance Behaviour in the Multilayer Resistive Wall Wake Field – *K.M. Hock, A. Wolski (Cockcroft Institute)***

- FR5RFP040 **Wake Field Simulations for the Vacuum Chamber Transitions of the ILC Damping Rings – M. Korostelev, A. Wolski (Cockcroft Institute)**
- FR5RFP041 **Full Structure Simulations of ILC Collimators – J.D.A. Smith (Cockcroft Institute)**
- FR5RFP042 **Effect of Wake Fields in an Energy Recovery Linac – M.G. Billing, H.A. Williams (CLASSE)**
- FR5RFP043 **Simulations of Electron-Cloud Current Density Measurements in Dipoles, Drifts and Wigglers at CesrTA – J.R. Calvey, J.A. Crittenden, G. Dugan, S. Greenwald, J.A. Livezey, M.A. Palmer, D. L. Rubin (CLASSE) C.M. Celata, M.A. Furman (LBNL) H. Fukuma, P. Jain, K. Kanazawa, Y. Suetsugu (KEK) K.C. Harkay (ANL) R. Holtzapple (CalPoly) M.T.F. Pivi, L. Wang (SLAC)**
- FR5RFP044 **Studies of the Effects of Electron Cloud Formation on Beam Dynamics at CesrTA – J.A. Crittenden (Cornell University, Department of Physics) J.R. Calvey, G. Dugan, J.A. Livezey, M.A. Palmer, D. L. Rubin (CLASSE) M.A. Furman, G. Penn, M. Venturini (LBNL) K.C. Harkay (ANL) R. Holtzapple (CalPoly) K. Ohmi (KEK) M.T.F. Pivi, L. Wang (SLAC)**
- FR5RFP045 **Wake and Higher Order Mode Computations for CMS Experimental Chamber at the LHC – R. Wanzenberg (DESY) E. Métral (CERN)**
- FR5RFP046 **Studies of Collective Effects in SOLEIL and DIAMOND Using the Multiparticle Tracking Codes SBTRACK and MBTRACK – R. Nagaoka (SOLEIL) R. Bartolini, J. Rowland (Diamond)**
- FR5RFP047 **Analysis of the Transverse SPS Beam Coupling Impedance with Short and Long Bunches – B. Salvant (EPFL) G. Arduini, H. Burkhardt, H. Damerau, W. Höfle, E. Métral, G. Papotti, G. Rumolo, B. Salvant, E.N. Shaposhnikova, R. Tomas, S.M. White (CERN) R. Calaga, R. de Maria (BNL)**
- FR5RFP048 **An Update of ZBASE, the CERN Beam Coupling Impedance Database – B. Salvant (EPFL) H. Medina, E. Métral, G. Rumolo, B. Salvant (CERN)**
- FR5RFP049 **Coupling Impedance of the CERN SPS Beam Position Monitors – B. Salvant (EPFL) D. Alesini, M. Migliorati, B. Spataro (INFN/LNF) G. Arduini, C. Boccard, F. Caspers, A. Grudiev, O.R. Jones, E. Métral, G. Rumolo, B. Salvant, C. Zannini (CERN) R. Calaga (BNL) F. Roncarolo (UMAN)**
- FR5RFP050 **Beam Instability Studies at Transition Crossing in the CERN PS – S. Aumont, W. Bartmann, S.S. Gilardoni, E. Métral, G. Rumolo, R.R. Steerenberg (CERN) B. Salvant (EPFL)**

- FR5RFP051 **Comparison of Enamel and Stainless Steel Electron Cloud Clearing Electrodes Tested in the CERN Proton Synchrotron** – *E. Mahner, F. Caspers, T. Kroyer (CERN)*
- FR5RFP052 **Impedance Studies for the Phase II LHC Collimators** – *E. Métral, F. Caspers, A. Grudiev, T. Kroyer (CERN) F. Roncarolo (UMAN) B. Salvant (EPFL) B. Zotter (Honorary CERN Staff Member)*
- FR5RFP053 **Update on Fast Ion Instability Simulations for the CLIC Main Linac** – *G. Rumolo, D. Schulte (CERN)*
- FR5RFP054 **Multi-Bunch Simulations with HEADTAIL** – *G. Rumolo, E. Métral (CERN)*
- FR5RFP055 **Multi-Bunch Calculations in the CLIC Main Linac** – *D. Schulte (CERN)*
- FR5RFP056 **Reference Measurements of the Longitudinal Impedance in the CERN SPS** – *E.N. Shaposhnikova, T. Bohl, H. Damerau, K. Hanke, T.P.R. Linnecar, B. Mikulec, J. Tan, J. Tuckmantel (CERN)*
- FR5RFP057 **Studies of Beam Instability in a Double RF System in the CERN SPS** – *E.N. Shaposhnikova, T. Bohl, T.P.R. Linnecar (CERN) C.M. Bhat (Fermilab)*
- FR5RFP058 **Stabilizing Effect of a Double-Harmonic RF System in the CERN PS** – *C.M. Bhat (Fermilab) F. Caspers, H. Damerau, S. Hancock, E. Mahner, F. Zimmermann (CERN)*
- FR5RFP059 **Emittance Dilution Caused by the Couplers in the Main Linac and Bunch Compressor of ILC** – *A. Latina, I.G. Gonin, A. Lunin, K. Ranjan, N. Solyak, V.P. Yakovlev (Fermilab)*
- FR5RFP060 **Stability Issues of the mu2e Proton Beam** – *K.Y. Ng (Fermilab)*
- FR5RFP061 **Stability of Bunches in Barrier Buckets** – *T. Sen, C.M. Bhat, J.-F. Ostiguy (Fermilab)*
- FR5RFP062 **Investigation of Single Bunch Instabilities due to Electron Cloud Effects** – *K.G. Sonnad (FZK) G. Franchetti (GSI) M.A. Furman, J.-L. Vay (LBNL) K. Ohmi (KEK) M.T.F. Pivi, T.O. Raubenheimer (SLAC) G. Rumolo, F. Zimmermann (CERN) K.G. Sonnad (University of Karlsruhe)*
- FR5RFP063 **Investigation of the Temporal Structure of CSR-Bursts at BESSY II** – *P. Kuske (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH)*
- FR5RFP064 **Streak Camera Observations of Bunches Undergoing Head-Tail Instability due to Electron Clouds** – *J.W. Flanagan, H. Fukuma, H. Ikeda, K. Ohmi (KEK)*

- FR5RFP065 **Simulation for the Measurement of Near-Bunch Electron Cloud Density at KEKB LER – P. Jain (GUAS/AS) H. Fukuma, K. Kanazawa, S.-I. Kurokawa (KEK)**
- FR5RFP066 **Higher Order Modes in a String of Multi-Cell Accelerating Structures – Y. Morozumi (KEK)**
- FR5RFP067 **Electron Cloud Instability under the Presence of the Dispersion – K. Ohmi (KEK) J. Hyunchang (POSTECH)**
- FR5RFP068 **Demonstration of Electron Clearing Effect by Means of Clearing Electrodes and Groove Insertions in High-Intensity Positron Ring – Y. Suetsugu, H. Fukuma (KEK) M.T.F. Pivi, L. Wang (SLAC)**
- FR5RFP069 **Intensity Dependent Beam Dynamics Studies in the Fermilab Booster – L.K. Spentzouris (Illinois Institute of Technology) J.F. Amundson, W. Pellico, P. Spentzouris, E.G. Stern, R.E. Tomlin (Fermilab) D.O. McCarron (IIT)**
- FR5RFP070 **A Simulation Study of the Electron Cloud Induced Instability at DAFNE – T. Demma, A. Drago, S. Guiducci, M. Zobov (INFN/LNF) K. Ohmi (KEK)**
- FR5RFP071 **Maps for Electron Clouds: Application to LHC Conditioning – T. Demma, R. Cimino (INFN/LNF) S. Petracca (U. Sannio)**
- FR5RFP072 **Stabilization of Beam Instability due to Space Charge Effect at J-PARC – Y. Shobuda (JAEA/J-PARC) Y.H. Chin (KEK)**
- FR5RFP073 **Estimation of the Electron Emission from the RCS Collimator – K. Yamamoto (JAEA/J-PARC)**
- FR5RFP074 **Observation of Longitudinal Microbunch Instabilities in Diamond Storage Ring – R. Bartolini, V. Karataev (JAI) R. Bartolini, G. Rehm (Diamond)**
- FR5RFP075 **Effects of Transverse Periodic Beam Loading in a Storage Ring – J.R. Thompson, J.M. Byrd (LBNL)**
- FR5RFP076 **Initial Results of Simulation of a Damping System for Electron Cloud-Driven Instabilities in the CERN SPS – J.R. Thompson, J.M. Byrd (LBNL) W. Höfle, G. Rumolo (CERN)**
- FR5RFP077 **Simulation of a Feedback System for the Attenuation of E-Cloud Driven Instability – J.-L. Vay, J.M. Byrd, M.A. Furman, M. Venturini (LBNL) J.D. Fox (SLAC)**
- FR5RFP078 **Update on Electron-Cloud Simulations Using the Package WARP-POSINST – J.-L. Vay, C.M. Celata, M.A. Furman, M. Venturini (LBNL) K.G. Sonnad (FZK)**
- FR5RFP079 **Recent Experiments and Simulations of Electron Cloud Buildup in Drift Spaces and Quadrupole Magnets at the Los Alamos PSR – R.J. Macek, L. Rybacyk, T. Zaugg (LANL) A. A. Browman (TechSource)**

- FR5RFP080 **Studies of the Stability of Modified-Distribution-Function Beams on the Princeton Paul Trap Simulator Experiment (PTSX) – E.P. Gilson, R.C. Davidson, M. Dorf, P. Efthimion, R. M. Majeski, E. Startsev, H. Wang (PPPL) A. Arora (Cornell University) M. Chung (Fermilab) N. Thomas (MIT)**
- FR5RFP081 **Higher Mode Heating Analysis for Superconducting ILC Linacs – K.L.F. Bane, C. Adolphsen, Z. Li, L. Xiao (SLAC)**
- FR5RFP082 **Sheet Beam Klystron Instability Analysis – K.L.F. Bane, C. Adolphsen, A. Jensen, Z. Li, G.V. Stupakov (SLAC)**
- FR5RFP083 **Measurements, Analysis, and Simulation of Microwave Instability in the Low Energy Ring of KEKB – Y. Cai (SLAC) J.W. Flanagan, H. Fukuma, Y. Funakoshi, T. Ieiri, K. Ohmi, K. Oide, Y. Suetsugu (KEK)**
- FR5RFP084 **Simulations of Jitter Coupling due to Wakefields in the FACET Linac – S. Molloy, M.J. Hogan, Y. Nosochkov, A. Seryi, P. Tenenbaum (SLAC)**
- FR5RFP085 **Longitudinal Beam Stability in the Super B-Factory – A. Novokhatski (SLAC) M. Zobov (INFN/LNF)**
- FR5RFP086 **Analysis of the Wake Field Effects in the PEP-II SLAC B-Factory – A. Novokhatski, J. Seeman, M.K. Sullivan, U. Wienands (SLAC)**
- FR5RFP087 **The Effect of an Oxide Layer on Resistive-Wall Wake Fields – A. Novokhatski (SLAC)**
- FR5RFP088 **Double RF System for PEP-X Light Source - Topology, Longitudinal Beam Stability and Performance – C.H. Rivetta, J.D. Fox, T. Mastorides, D. Van Winkle (SLAC)**
- FR5RFP089 **Transverse Single Bunch Instability in PEP-X – L. Wang, G.V. Stupakov (SLAC)**
- FR5RFP090 **Effects of Beam Filling Pattern on Beam Ion Instability and Beam Loading in PEP-X – L. Wang, Y. Cai, M.-H. Wang (SLAC)**
- FR5RFP091 **Understanding of Electron Resonance in a Dipole Magnet – L. Wang (SLAC)**
- FR5RFP092 **Measurements of the Complex Conductivity of Vacuum Vessels at THz Frequencies – D.J. Scott, S.P. Jamison (STFC/DL/ASTeC)**
- FR5RFP093 **BTF Simulations for Tevatron and RHIC with Resistive Wall Wake Field – V.H. Ranjbar, A.V. Sobol (Tech-X) H.J. Kim, T. Sen, C.-Y. Tan (Fermilab)**
- FR5RFP094 **Development of a 1.5+0.5 Cell Photoinjector – B. D. O'Shea, J.B. Rosenzweig (UCLA)**

- FR5RFP095 **Studies of Bunch Distortion and Bursting Threshold in the Generation of Coherent THz-Radiation at the ANKA Storage Ring – *M. Klein, T. Bueckle, M. Fitterer, A. Hofmann, A.-S. Muller, K.G. Sonnad (University of Karlsruhe) I. Birkel, E. Huttel, Y.-L. Mathis (FZK)***
- FR5RFP096 **Simulation Results of Current Filamentation Instability Generated from PWFA Electron Beam – *B.A. Allen, B. Feng, P. Muggli (USC) C. Huang (UCLA) T.C. Katsouleas (Duke University) V. Yakimenko (BNL)***
- FR5RFP097 **Four Regimes of the IFR Ion Hose Instability – *R.A. Bosch (UW-Madison/SRC)***

**FR5RE — Morning Poster Session**

*Controls and Operations, Low and Medium Energy Accelerators and Rings*

- FR5REP001 **High Availability On-Line Relational Databases for Accelerator Control and Operation – *D. Dohan, G. Carcassi, L.R. Dalesio (BNL)***
- FR5REP002 **EPICS-DDS – *N. Malitsky (BNL)***
- FR5REP003 **RHIC Injector Complex Online Model Status and Plans – *V. Schoefer, L. Ahrens, K.A. Brown, J. Morris, S. Nemesure (BNL)***
- FR5REP004 **A Software Architecture for High Level Applications – *G.B. Shen, L.R. Dalesio, D. Dohan, N. Malitsky (BNL)***
- FR5REP005 **Synchronous Device Interface – *Y. Tian, L.R. Dalesio (BNL)*  
*L.R. Doolittle (LBNL)***
- FR5REP006 **Equipment/Cyclotron Operation Simulation Based on Creator/Vega Visual Scenery Simulation Technology – *S. Luo, D.B. Liao, S. Liu (Commanding Communications Academy)*  
*F. Yang, Z.G. Yin, T.J. Zhang (CIAE)***
- FR5REP007 **Final Implementation and Performance of the LHC Collimator Control System – *S. Redaelli, R.W. Assmann, R. Losito, A. Masi (CERN)***
- FR5REP008 **Information Management within the LHC Hardware Commissioning Project – *A. Vergara-Fernández, B. Bellesia, C. Fernandez-Robles, M. Koratzinos, A. Marqueta Barbero, M. Poyer, R.I. Saban, R. Schmidt, M. Solfaroli Camillocci, J. Szukutnik, M. Zerlauth (CERN)***
- FR5REP009 **FESA at FAIR - The Front-End Software Architecture – *T. Hoffmann, M. Schwickert (GSI)* *G. Jansa (Cosylab)***
- FR5REP010 **Event-Based Timing and Control System for Fast Beam-Mode Switching at KEK 8 GeV Linac – *K. Furukawa, M. Satoh, T. Suwada (KEK)***
- FR5REP011 **Using LabVIEW to Improve the Operation of a Particle Accelerator – *J.G. Lopes, F.A. Alegria (IST)* *L.M. Redondo (ISEL)***
- FR5REP012 **Timing Delay Management Database for J-PARC Linac and RCS – *H. Takahashi (JAEA/J-PARC)* *H. Sakaki (JAEA)* *M. Sugimoto (Mitsubishi Electric Control Software Corp)***
- FR5REP013 **High-Frequency Waves Optimizing Control for Linear Accelerators – *A.V. Derevianko, M. Styervoiedov (KhNU)***
- FR5REP014 **The Accelerator Control Systems – *A.V. Derevianko, S. Styervoiedov (KhNU)***

- FR5REP015 **ALS Control System Upgrade in C# – H. Nishimura, M.J. Beaudrow, W.E. Byrne, C.M. Ikami, G.J. Portmann, CA. Timossi, M.E. Urashka (BNL)**
- FR5REP016 **ALS Injector High Level Controls Upgrade – G.J. Portmann, C.M. Ikami, H. Nishimura, CA. Timossi, M.E. Urashka (BNL)**
- FR5REP017 **Beam Test with a DDS of Arbitrary Waveform – M. Kanazawa (NIRS)**
- FR5REP018 **Timing System Upgrade for SNS – D.H. Thompson (ORNL) J. Dedic (Cosylab)**
- FR5REP019 **Developing of PBPM Data Acquisition Control System for the PLS – J.C. Yoon, K.M. Ha, C. Kim, S.J. Park (PAL)**
- FR5REP020 **Architecture of VEPP-4M Collider's Interlock System – O.A. Plotnikova, V.I. Kaplin, S.E. Karnaev, A.N. Kvashnin, S.P. Vasichev (BINP SB RAS)**
- FR5REP021 **An Overview of JFreeChart Library for Plotting Scientific Data – S. Chevtsov (SLAC)**
- FR5REP022 **XAL-Based Applications and Online Model for LCLS – P. Chu, R.H. Iverson, P. Krejcik, G.R. White, M. Woodley, J. Wu (SLAC) Q. Gan (IHEP Beijing)**
- FR5REP023 **Interfacing of Third-Party Accelerator Code with the Lucretia Flight Simulator – S. Molloy, M.T.F. Pivi, G.R. White (SLAC) Y. Renier (LAL)**
- FR5REP024 **A Flight Simulator Based Beam Based Alignment Package for ATF2 – S. Molloy, G.R. White, M. Woodley (SLAC)**
- FR5REP025 **Device and Accelerator Modelling Relational Database – G.R. White, A. Chan, S. Chevtsov, P. Chu, E. Grunhaus, K. Luchini, M. Woodley (SLAC)**
- FR5REP026 **Control of Electron Beam Parameters and Machine Setting with Model Independent Global Analysis – M.J. Lee, J. Wu (SLAC)**
- FR5REP027 **Orbit Display's Use of the Physics Application Framework for LCLS – S. Zelazny, S. Chevtsov, P. Chu, D. Fairley, P. Krejcik, D. Rogind, G.R. White, M. Woodley (SLAC)**
- FR5REP028 **High-Level ALICE Software Development – B.J.A. Shepherd, J.K. Jones (STFC/DL/ASTeC)**
- FR5REP029 **A Novel Beam Control Algorithm with Orbit Response Matrix – C. Wu, E.H. Abed, B.L. Beaudoin, S. Bernal, I. Haber, R.A. Kishek, P.G. O'Shea, M. Reiser, D.F. Sutter (UMD)**
- FR5REP030 **Operating Procedure Changes to Improve Antiproton Production at the Fermilab Tevatron Collider – B.E. Drendel, J.P. Morgan, D. Vander Meulen (Fermilab)**

- FR5REP031 **ALS FPGA-Based Extraction Trigger Inhibit Interlock System for Top-Off Mode – J.M. Weber, K.M. Baptiste, R.S. Mueller (LBNL)**
- FR5REP032 **Diagnostic Systems for the TLS SRF System – Y.-H. Lin (NSRRC)**
- FR5REP033 **Next Generation Fast RF Interlock Module and VME-ATCA Adapter for ILC High Availability RF Test Station Demonstration – R.S. Larsen, C. Adolphsen, D.J. McCormick, W.C. Ross, Z.M. Szalata (SLAC) R.W. Downing (R.W. Downing Inc.)**
- FR5REP034 **Reliability of Operation at SLAC in the LCLS Era – U. Wienands, B. Allen, W.S. Colocho, R.A. Erickson, M. Stanek (SLAC)**
- FR5REP035 **Reliability Analysis of the LHC Machine Protection System: Analytical Model Description – S. Wagner, R. Nibali (ETH) R. Schmidt, J. Wenninger (CERN)**
- FR5REP036 **Interaction of the Large Hadron Collider 7 TeV/c Proton Beam with a Solid Copper Target – N.A. Tahir (GSI) V.E. Fortov, I. Lomonosov, A. Shutov (IPCP) D. Hoffmann (TU Darmstadt) R. Piriz (Universidad de Castilla-La Mancha) R. Schmidt (CERN)**
- FR5REP037 **Design and Development of MPS Sub System for J-PARC Linac/RCS – T. Suzuki (JAEA)**
- FR5REP038 **SNS BLM System Evolution: Detectors, Electronics and Software – A.P. Zhukov, S. Assadi, J. Pogge (ORNL)**
- FR5REP039 **The Machine Protection System for the Linac Coherent Light Source – S.N. Norum, S. Allison, S. Chevtsov, J.E. Dusatko, K.D. Kotturi, P. Krejcik, J. Olsen, T. Straumann, A.J. Tilghman (SLAC)**
- FR5REP040 **Performance Evaluation of Using EPICS Oscilloscopes for Real-Time Waveform Monitoring – L. Shaw (ZTEC Instruments) J.Y. Tang (ORNL)**
- FR5REP041 **Current Status and Final Design of the Cryogenic Storage Ring in Heidelberg, Germany – M.W. Froese, K. Blaum, J.R. Crespo Lopez-Urrutia, F. Fellenberger, M. Grieser, D. Kaiser, M. Lange, F. Laux, S. Menk, D. Orlov, R. Repnow, C.D. Schroeter, D. Schwalm, T. Sieber, J. Ullrich, J. Varju, A. Wolf, R. von Hahn (MPI-K) O. Heber, M.L. Rappaport, Y. Toker, D. Zajfman (Weizmann Institute of Science, Physics)**
- FR5REP042 **Investigations of the USR "Short Pulse" Operation Mode – A.I. Papash (MPI-K) C.P. Welsch (Cockcroft Institute)**
- FR5REP043 **Simulations of Space Charge Effects in Low Energy Electrostatic Storage Rings – C.P. Welsch (The University of Liverpool) M.H. Al-Malki (KACST) A.I. Papash (MPI-K) C.P. Welsch (Cockcroft Institute)**

- FR5REP044 **Layout of an Electrostatic Storage Ring at KACST – M.O.A. El Ghazaly (KUK) M.H. Al-Malki, M.O.A. El Ghazaly (KACST) A.I. Papash (MPI-K) C.P. Welsch (Cockcroft Institute)**
- FR5REP045 **Energy Upgrade of the ATLAS SC Heavy-Ion Linac – P.N. Ostroumov, J.D. Fuerst, S.M. Gerick, M. Kedzie, M.P. Kelly, S.W.T. MacDonald, R.C. Pardo, S.I. Sharamentov, K.W. Shepard, G.P. Zinkann (ANL)**
- FR5REP046 **Beam Commissioning of the RFQ for the RHIC-EBIS Project – M. Okamura, J.G. Alessi, E.N. Beebe, V. Lo Destro, A.I. Pikin, D. Raparia, J. Ritter (BNL) T. Kanesue (Kyushu University, Department of Applied Quantum Physics and Nuclear Engineering) A. Schempp, J.S. Schmidt, M. Vossberg (IAP) J. Tamura (Department of Energy Sciences, Tokyo Institute of Technology)**
- FR5REP047 **Studies of Microbunching at BNL NSLS Source Development Laboratory – S. Seletskiy, Y. Hidaka, J.B. Murphy, B. Podobedov, H.J. Qian, Y. Shen, X.J. Wang, X. Yang (BNL)**
- FR5REP048 **Optimization of the Bunch Compressor at BNL NSLS Source Development Laboratory – S. Seletskiy, Y. Hidaka, J.B. Murphy, B. Podobedov, H.J. Qian, Y. Shen, X.J. Wang, X. Yang (BNL)**
- FR5REP049 **Optimization of the Beam Transmission Efficiency in NSLS Linac – X. Yang, A. Goel, T.V. Shaftan (BNL)**
- FR5REP050 **Development of 132 MeV DTL for CSNS – X. Yin, S. Fu, K.Y. Gong, Z.R. Sun (IHEP Beijing)**
- FR5REP051 **Design of the Pi-Mode Structure (PIMS) for Linac4 – F. Gerigk, R. Wegner (CERN)**
- FR5REP052 **Construction Status of Linac4 – F. Gerigk, C. Carli, R. Garoby, K. Hanke, A.M. Lombardi, R. Maccaferri, S. Maury, C. Rossi, M. Vretenar (CERN)**
- FR5REP053 **Higher Order Modes in the Superconducting Cavities of the SPL – F. Gerigk, M. Schuh (CERN) C.P. Welsch (KIP)**
- FR5REP054 **Linac4 DTL Prototype: Theoretical Model, Simulation and Low Energy Measurements – F. Grespan, G. De Michele, F. Gerigk, S. Ramberger (CERN)**
- FR5REP055 **Linac4 Beam Characterization before Injection into the CERN PS Booster – B. Mikulec, G. Bellodi, M. Eshraqi, K. Hanke, T. Hermanns, A.M. Lombardi, U. Raich (CERN)**
- FR5REP056 **Proposed FNAL 750-keV Linac Injector Upgrade – C.-Y. Tan, D.S. Bollinger, W. Pellico, C.W. Schmidt (Fermilab)**
- FR5REP057 **Multi-Cell Reduced-Beta Elliptical Cavities for a Proton Linac – J.-P. Carneiro, N. Solyak, V.P. Yakovlev (Fermilab) W. Hartung (NSCL) P.N. Ostroumov (ANL)**

- FR5REP058 **Overview and Status Update of the Fermilab HINS Linac R&D Program – R.C. Webber (Fermilab)**
- FR5REP059 **A New High Energy UNILAC as a High Current Heavy Ion Injector for the FAIR-Synchrotrons – W. Barth, L.A. Dahl, H. Eickhoff, L. Groening (GSI)**
- FR5REP060 **Prototype Construction of a Coupled CH-DTL Proton Linac for FAIR – R. B. Brodhage, S. Minaev, H. Podlech, U. Ratzinger, R. Tiede (IAP) G. Clemente, L. Groening (GSI)**
- FR5REP061 **Recent Superconducting CH-Cavity Development – M. Busch, A. Bechtold, H. Podlech, U. Ratzinger (IAP)**
- FR5REP062 **A Beam Transport System for the Frankfurt Funneling Experiment – P. Kolb, N. Mueller, A. Schempp (IAP)**
- FR5REP063 **Funneling with a Two-Beam RFQ Accelerator – N. Mueller, U. Bartz, D. Ficek, P. Kolb, J.M. Maus, A. Schempp, M. Vossberg (IAP)**
- FR5REP064 **The New GSI HLI-RFQ for cw Operation – M. Vossberg, N. Mueller, A. Schempp (IAP) L.A. Dahl (GSI) J. Haeuser (NTG Neue Technologien GmbH & Co KG)**
- FR5REP065 **Mechanical Design of the IFMIF-EVEDA RFQ – A. Pepato (INFN- Sez. di Padova) M. Comunian, A. Palmieri, A. Pisent, C. Roncolato (INFN/LNL) E. Fagotti (Consorzio RFX, Associazione Euratom-ENEA sulla Fusione)**
- FR5REP066 **RFQ Design Optimisation for PAMELA Injector – M.J. Easton, M. Aslaninejad, S. Jolly, J.K. Pozimski (Imperial College of Science and Technology, Department of Physics)**
- FR5REP067 **Novel Integrated Design Method and Beam Dynamics Simulations for the FETS RFQ – S. Jolly, M.J. Easton, P. Savage (Imperial College of Science and Technology, Department of Physics) A.P. Letchford, J.K. Pozimski (STFC/RAL)**
- FR5REP068 **LENS Proton Linac: 6 Kilowatt Operation – T. Rinckel, D.V. Baxter, A. Bogdanov, V.P. Derenchuk, P.E. Sokol (IUCF) W. Reass (LANL)**
- FR5REP069 **100 MeV DTL Development for PEFP Proton Linac – H.S. Kim, Y.-S. Cho, J.-H. Jang, D.I. Kim, H.-J. Kwon, B.-S. Park (KAERI)**
- FR5REP070 **Development of IH Accelerating Structures with PMQ Focusing for Low-Beta Ion Beams – S.S. Kurennoy, J.F. O'Hara, L. Rybarczyk (LANL)**
- FR5REP071 **Simulation of Large Acceptance Linac for Muon – H.M. Miyadera, A.J. Jason, S.S. Kurennoy (LANL)**
- FR5REP072 **Use of a Debuncher Cavity for Improving Multi-Beam Operations at LANSCE – L. Rybarczyk, S.S. Kurennoy (LANL)**

- FR5REP073 **The Superconducting Driver Linac for the Proposed MSU FRIB Project – X. Wu, C. Compton, M. Doleans, W. Hartung, D. Lawton, F. Marti, R.C. York, Q. Zhao (NSCL)**
- FR5REP074 **Ion Beam Dynamics in Superconducting Drift Tube Linac – E.S. Masunov, A.V. Samoshin (MEPhI)**
- FR5REP075 **Final Tests on the First Module of the ACLIP Linac – V.G. Vaccaro, M.R. Masullo (Naples University Federico II and INFN) C. De Martinis (Universita' degli Studi di Milano & INFN) D. Giove (Istituto Nazionale di Fisica Nucleare) S.J. Mathot (CERN) A.C. Raino (Bari University, Science Faculty) R.J. Rush (e2v) V. Variabile (INFN-Bari)**
- FR5REP076 **Low Energy High Power Side Coupled Linac Optimization – V.G. Vaccaro, F. Galluccio (Naples University Federico II and INFN) A. Renzi (Naples University Federico II)**
- FR5REP077 **Performance Analysis and Improvement of the 50 MeV Linac for the Taiwan Light Source – C.Y. Wu, J. Chen, K.T. Hsu, K.H. Hu, J.-Y. Hwang, A.P. Lee, D. Lee, K.-K. Lin (NSRRC)**
- FR5REP078 **A Fourth Order Resonance of a High Intensity Linac – D.-O. Jeon (ORNL) G. Franchetti, L. Groening (GSI)**
- FR5REP079 **Design of a 104 MHz Trapezoidal Type IH-RFQ – Y.C. Nie, J.E. Chen, J.X. Fang, S.L. Gao, Z.Y. Guo, Y.R. Lu, X.Q. Yan, K. Zhu (PKU/IHIP)**
- FR5REP080 **Commissioning Status of 10-MeV Intense Electron Linac – S.H. Kim, M.-H. Cho, W. Namkung, H.R. Yang (POSTECH) S.D. Jang, S.J. Park, Y. G. Son (PAL) J.-S. Oh (NFRI)**
- FR5REP081 **Characteristics of Shaped Traveling-Wave Structure and Combined Accelerating System – V.M. Pirozhenko (Private Address)**
- FR5REP082 **Study of IH Linear Accelerator with Higher Order Mode – N. Hayashizaki, T. Hattori (RLNR)**
- FR5REP083 **'S' Band Linac Tube Developmental Work in SAMEER, India – R. Krishnan, A. Deshpande, T.S. Dixit, C.S. Nainwad (SAMEER)**
- FR5REP084 **Commissioning of the Injector Linac of the IFUSP Microtron – T.F. Silva, A.L. Bonini, C. Jahnke, R. Lima, M. Lucena, A.A. Malafronte, M.N. Martins, L. Portante, A.J. Silva, V.R. Vanin (USP/LAL)**
- FR5REP085 **Front End Studies for a High Power Proton Driver – D.C. Plostinar (STFC/RAL/ASTeC)**
- FR5REP086 **Outline Linac and Ring Designs for Potential ISIS Upgrades – G.H. Rees (STFC/RAL/ASTeC)**

- FR5REP087 **Status of the SARAF CW 40 MeV Proton/Deuteron Accelerator – I. Mardor, D. Berkovits, I. Gertz, J. Rodnizki, L. Weissman (Soreq NRC) K. Dunkel, F. Kremer, M. Pekeler, C. Piel, P. vom Stein (ACCEL)**
- FR5REP088 **Commissioning of the 100 MeV Preinjector for the Spanish Synchrotron ALBA – A.S. Setty, D. Jousse, J.-L. Pastre, F. Rodriguez (THALES) G. Benedetti, D. Einfeld, A. Falone, U. Iriso, M. Munoz, A. Olmos, F. Perez, M. Pont, P. Sanchez (ALBA) A. Sacharidis (EuroMev)**
- FR5REP089 **Physical Design and Microwave Measurements of 4MeV X-Band SW Accelerator – Hua,,J.F. Hua, H. Chen, Q.X. Jin, J. Shi, D.C. Tong (TUB)**
- FR5REP090 **Development of a 4 MeV X-Band SW Accelerator – Q.X. Jin, H. Chen, Hua,,J.F. Hua, D.C. Tong (TUB)**
- FR5REP091 **The Primary Experiment of Multipactor Electron Gun Based Accelerator – M. Zhong, C.-X. Tang, S. Zheng (TUB)**
- FR5REP092 **Optics Study on the Extraction Region for a High Intensity Compact Cyclotron – S.M. Wei, S. An, M. Li, T.J. Zhang (CIAE) Y.-N. Rao (TRIUMF)**
- FR5REP093 **Coupled Particle Motion in the CIAE CRM Injection Line – S. An, T.J. Zhang (CIAE) K. Bongardt (FZJ)**
- FR5REP094 **Periodic Parameter Tracking Using the Measured Magnetic Field Maps of the RACCAM Spiral FFAG Magnet – F. Meot (CEA) F. Forest, M.J. Leray (Sigmaphi) J. Pasternak (Imperial College of Science and Technology, Department of Physics)**
- FR5REP095 **An Alternative Design for the RACCAM Magnet with Distributed Conductors – D. Neuvéglise (SIGMAPHI S.A.) F. Meot (CEA)**
- FR5REP096 **Accelerating a Cyclotron 18 MeV Proton Beam by a SCDTL Linac – L. Picardi, C. Ronsivalle (ENEA C.R. Frascati) P. Panichelli, G. Prete, F. Romano, G. Valentini (SPARKLE S.r.l.)**
- FR5REP097 **Lifetime Studies for Polarized and Unpolarized Protons in COSY – S.A. Martin, B. Lorentz, D. Prasuhn, F. Rathmann, R. Schleichert, H. Stockhorst (FZJ) A. Garishvili, A.N. Nass, E. Steffens (University of Erlangen-Nürnberg, Physikalisches Institut II) P. Lenisa, M. Statera (INFN-Ferrara)**
- FR5REP098 **Tune Stabilized Non-Scaling FFAG Lattices – J. Pasternak, M. Aslaninejad (Imperial College of Science and Technology, Department of Physics) D.J. Kelliher, S. Machida (STFC/RAL/ASTeC) J. Pasternak, J.K. Pozimski (STFC/RAL) K.J. Peach, S.L. Sheehy, H. Witte, T. Yokoi (JAI)**
- FR5REP099 **Status of the JINR FLNR Cyclotrons – I.V. Kalagin, S.N. Dmitriev, B. Gikal, G. Gulbekyan (JINR)**

- FR5REP100 **Coupling Resonance Qx-Qy=0 and Its Correction in Axial Injection Channel of the Cyclotron – N.Yu. Kazarinov** (JINR)
- FR5REP101 **Screening of Optical Elements in C400 Axial Injection Beam Line – N.Yu. Kazarinov, V. Aleksandrov, V. Shevtsov, A. Tuzikov** (JINR) Y. Jongen (IBA)
- FR5REP102 **Axial Injection Beam Line of C400 Superconducting Cyclotron for Carbon Therapy – N.Yu. Kazarinov, V. Aleksandrov, V. Shevtsov, A. Tuzikov** (JINR) Y. Jongen (IBA)
- FR5REP103 **Developments for High Intensity Proton Beam Acceleration at RCNP Cyclotron Facility – M. Fukuda, K. Hatanaka, H.N. Kawamata, M. Kibayashi, T. Saito, H. Tamura, T. Yorita** (RCNP)
- FR5REP104 **Muon Cooling in a Racetrack FFAG Using Superfluid Helium Wedge Absorbers – A. Sato** (Osaka University) S. Ishimoto (KEK)
- FR5REP105 **Phase Rotation in the Six-Sector PRISM-FFAG – A. Sato, M. Aoki, Y. Arimoto, T. Itahashi, Y. Kuno, Y. Nakanishi, M.Y. Yoshida** (Osaka University) Y. Iwashita (Kyoto ICR) Y. Kuriyama, Y. Mori (KURRI) A. Kurup (Imperial College of Science and Technology, Department of Physics) C. Ohmori (KEK/JAEA)
- FR5REP106 **Sawtooth RF System with High Field Gradient for PRISM-FFAG – A. Sato, M. Aoki, Y. Arimoto, T. Itahashi, Y. Kuno, Y. Nakanishi, M.Y. Yoshida** (Osaka University) Y. Iwashita (Kyoto ICR) Y. Kuriyama, Y. Mori (KURRI) C. Ohmori (KEK/JAEA)
- FR5REP107 **Modelling the ALICE Electron Beam Properties through the EMMA Injection Line Tomography Section – D.J. Holder** (Cockcroft Institute) B.D. Muratori (STFC/DL/ASTeC)
- FR5REP108 **EMMA Diagnostic Line – B.D. Muratori, J.K. Jones, S.L. Smith, S.I. Tzenov** (STFC/DL/ASTeC)
- FR5REP109 **EMMA Commissioning – B.D. Muratori, S.L. Smith, S.I. Tzenov** (STFC/DL/ASTeC) J.S. Berg (BNL)
- FR5REP110 **Magnetic Measurements of the RACCAM Prototype FFAG Dipole – M.J. Leray, F. Forest (Sigmaphi) F. Meot (CEA) J. Pasternak (LPSC)**
- FR5REP111 **Beam Loss by Lorentz Stripping and Vacuum Dissociation for the CIAE 100 MeV H<sup>-</sup> Compact Cyclotron – T.J. Zhang, F.P. Guan, X.L. Jia, S.M. Wei, J.Q. Zhong** (CIAE) Y.J. Bi (TUB) G. Dutto, G.H. Mackenzie, L.W. Root (TRIUMF) J.Z. Wang (Department of Physics, Central China Normal University)
- FR5REP112 **Analysis of Orbits in Combined Function Magnets – S.R. Koscielniak** (TRIUMF)
- FR5REP113 **AG Focusing in the Thomas Cyclotron of 1938 – M.K. Craddock** (UBC & TRIUMF)

- FR5REP114 **FFAGs and Cyclotrons with Reverse Bend** – *M.K. Craddock (UBC & TRIUMF) Y.-N. Rao (TRIUMF)*
- FR5REP115 **Recent Beam Studies of the FFAG-ERIT System for BNCT** – *K. Okabe (University of Fukui, Faculty of Engineering) Y. Mori (KURRI) M. Muto (FFAG DDS Research Organization)*
- FR5REP116 **A Compact High-Resolution Isobar Separator for the CARIBU Project** – *C.N. Davids, D. Peterson (ANL)*
- FR5REP117 **Rare Ion Beam Facility at Kolkata – Present State of Development** – *A. Bandyopadhyay, S. Basak, D. Bhowmick, A. Chakrabarti, P.S. Chauhan, S. Dechoudhury, J.S. Kainth, P. Karimkar, T. Kundu Roy, T.K. Mandi, M. Mondal, V. Naik, H.K. Pandey, D. Sanyal (DAE/VECC)*
- FR5REP118 **An Alternative Ion-Optical Mode of the Recuperated Experimental Storage Ring (RESR)** – *S.A. Litvinov, A. Dolinsky, F. Nolden, F. Steck (GSI)*
- FR5REP119 **REX-ISOLDE Facility and the Importance of Beam Time Structure to Data Acquisition and Processing - the Experimentalist's View** – *C. Bauer (TU Darmstadt)*
- FR5REP120 **Beam Funneling in the Facility for Rare Isotope Beams** – *Y.K. Batygin, F. Marti (NSCL)*
- FR5REP121 **Effect of Space Charge on Extraction Efficiency of Ions in Cyclotron Gas Stopper** – *Y.K. Batygin, G. Bollen, C. Campbell, F. Marti, D.J. Morrissey, G.K. Pang, S. Schwarz (NSCL)*
- FR5REP122 **Holifield Radioactive Ion Beam Facility (HRIBF) Development Status** – *D.W. Stracener, J.R. Beene, D. Dowling, R.C. Juras, Y. Liu, M.J. Meigs, A.J. Mendez, P.E. Mueller, J. W. Sinclair, B.A. Tatum (ORNL)*
- FR5REP123 **Beam Commissioning of Separated Function RFQ Accelerator** – *J.E. Chen, J.X. Fang, Z.Y. Guo, Y.R. Lu, Z. Wang, K. Zhu (PKU/IHIP)*
- FR5REP124 **Beam Delivery and Future Initiatives at the ISAC Radioactive Ion Beam Facility** – *M. Trinczek, F. Ames, R.A. Baartman, P.G. Bricault, M. Dombsky, K. Jayamanna, J. Lassen, R.E. Laxdal, M. Marchetto, L. Merminga, A.C. Morton, V.A. Verzilov, F. Yan (TRIUMF)*

## ***Notes***

## ***Notes***

# Particle Accelerator Conference



[www.triumf.ca/pac09](http://www.triumf.ca/pac09)