*Technical Process of Producing a Proceedings MOZA20

Volker RW Schaa
GSI, Darmstadt, Germany

TM in Vancouver, BC, Canada
08 Nov 2016

Overview

- Responsibility
- Paper Processing - General Flow
- Tools & Methods to Ensure Flow
- Preparations for Proceedings Publication
- Proceedings Entry Page
- Final Checks

Responsibility

Editor in Chief

- The editor in chief is responsible for the Editorial Office and the publication of the proceedings. These two tasks have always been very technical, therefore the person responsible for the Scientific Secretariat (SS) had always been supported by a (technical) editor.
- Chris stated that "*An Editor whose job has often begun just in advance of the conference can be at a disadvantage being unfamiliar with the organization of the scientific programme, the types of contribution, the speakers, contributors, etc. numerous issues can fall between the cracks between SS and the Editor.*
  If the SS does not take responsibility for publication, the tandem SS/Editor needs to be very strong."
- When this link is weak, it nearly always results in a delayed publication.

* Paper Processing - General Flow

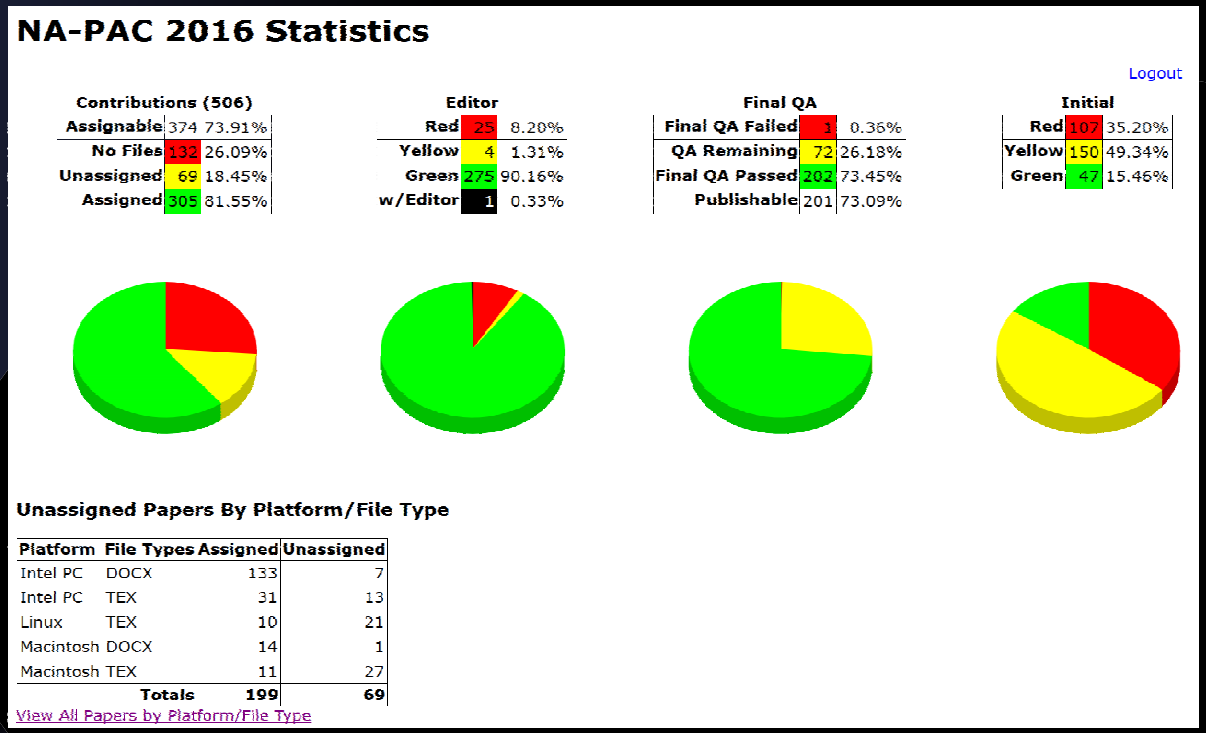
1. core team starts ahead of event (Thursday) after an update of tools, parameters, procedures and establishing a "pickiness" level
2. goal is to have processed 80% of the papers on Sunday
3. new editors start on Sunday with the remaining 20%
4. core team starts QA on Monday (or after 80% have been reached)
5. dedicated editors start with transparency processing (on Monday noon, work starts after talk has been given)
6. starting from Monday ATC (Author Title Checks) done by Author Reception crew
7. general warning to the authors to submit latest Wednesday morning
8. YELLOWs to GREEN (after warning email Tuesday) on Wednesday

*cont.

9. daily reports distributed to editors about
   - "broken papers“
   - "page checks“
   - "tearing boxes“
   - Author accepted YELLOW dot paper, but requests changes
   - Author rejected changes

*Tools & Methods to Ensure Flow

Topics: 1-5 /reports.html or /rpt_stats.html



NA-PAC 2016 Statistics

Logout

Contributions (506)		
Assignable	374	73.91%
No Files	132	26.09%
Unassigned	69	18.45%
Assigned	305	81.55%

Editor		
Red	25	8.20%
Yellow	4	1.31%
Green	275	90.16%
w/Editor	1	0.33%

Final QA		
Final QA Failed	1	0.36%
QA Remaining	72	26.18%
Final QA Passed	202	73.45%
Publishable	201	73.09%

Initial		
Red	107	35.20%
Yellow	150	49.34%
Green	47	15.46%

Unassigned Papers By Platform/File Type

Platform	File Types	Assigned	Unassigned
Intel PC	DOCX	133	7
Intel PC	TEX	31	13
Linux	TEX	10	21
Macintosh	DOCX	14	1
Macintosh	TEX	11	27
	Totals	**199**	**69**

View All Papers by Platform/File Type

check (at least) daily to be able to (re)direct workforces

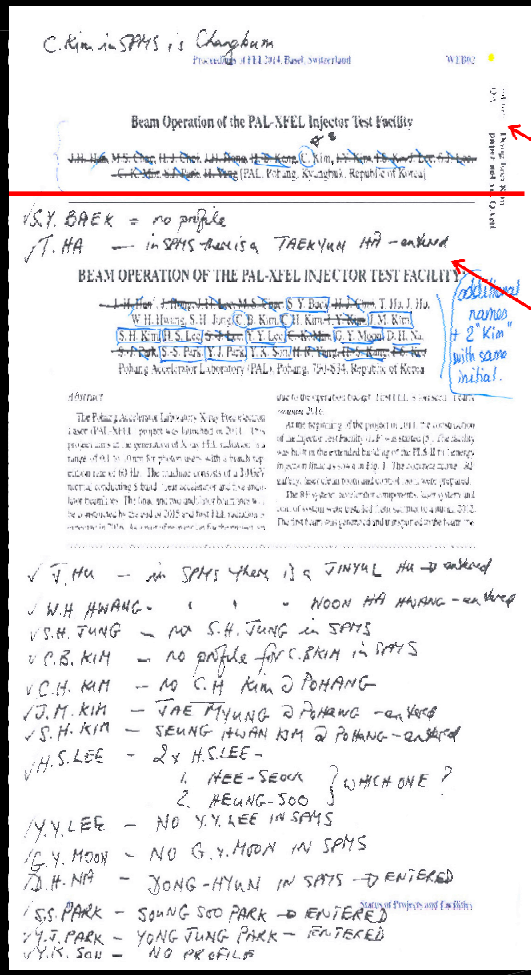
be aware: the number of "Assignable" etc. depends on the threshold in --> /params.show_cats?cat=USER

File Upload Threshold must be "1" to see all "Assignable", "No Files", and "Unassigned“ submissions

*Tools & Methods cont.

Topics: 6 Author-Title-Check (ATC)

The ATC important to have the correct title and authors in SPMS (and finally in the proceedings).
This task is hard to be done by the editors as comparison from screen to paper is harder then striking out on paper.



SPMS

Manuscript

One page per paper output generated by a script from VRWS

Example of a *bad case* scenario from FEL2014. Comparison made by Chris

*Tools & Methods cont.

Topics: 9 Daily Reports

Broken Papers: what does it mean?

BEAM DYNAMICS ANALYSIS FOR THE ULTRA-FAST KICKER IN
CIRCULAR COOLER RING OF JLEIC *

<▯▯+XDQJ.,▯▯▯▯▯▯▯+▯▯:DQJ▯▯▯5▯$▯▯5LPPHU▯▯▯6▯▯:DQJ▯ ▯▯▯▯,QVWLWXWH▯RI▯ORGHUQ▯3K
\VLFV▯▯&KLQHVH▯$FDGHP\▯RI▯6FLHQFHV▯▯/DQ]KRX▯▯▯▯▯▯▯▯&KLQD▯ ▯▯▯8QLYHUVLW\▯RI▯▯&KLQHVH▯
$FDGHP\▯RI▯6FLHQFHV▯▯%HLMLQJ▯▯▯▯▯ ▯▯&KLQD▯ ▯▯▯7KRPDV▯-HIIHUVRQ▯1DWLRQDO▯$FFHOHUDWRU▯)
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$EVWUDFW
An ultra-fast kicker system consisting of four quarter wavelength resonator based deflecting cavities was developed that simultaneously resonates at 10 subharmonic modes of the 476.3MHz bunch repetition frequency. Thus every 10th bunch in the bunch train will experience a transverse kick while all the other bunches are undisturbed. This fast kicker is being developed for the Energy Recovery Linac (ERL) based electron Circular Cooler Ring (CCR) in the proposed Jefferson Lab Electron Ion Collider (JLEIC, previously MEIC). The electron bunches can be reused 10-30 turns thus the beam current in the ERL can be reduced to 1/10 -1/30 (150mA
- 50mA) of the cooling bunch current (1.5A). In this paper, several methods to synthesize such a kicker waveform will be discussed and the comparison made by beam dynamics tracking in Elegant.

,1752'8&7,21
&RROLQJ▯RI▯LRQ▯EHDPV▯LV▯FULWLFDO▯LQ▯GHOLYHULQJ▯KLJK▯
OXPLQRVLWLHV▯IRU▯WKH▯SURSRVHG▯JLEIC [1-4]. The present JLEIC design utilizes a scheme of multi-stage cooling, a DC cooler in the booster and bunched beam cooler in the ion collider ring. For energy efficiency and to minimize the power to be dissipated in the beam dump, an ERL based electron cooler configuration is being developed.
The conceptual layout of the single turn ERL based bunched beam cooler ring is shown in Fig.1 (black) [12,4]. In the future high luminosity upgrade, high intensity electron beam is needed. A circulator ring was proposed to reuse the electron bunches, as shown in Fig.1 (green). Electron bunches will circulate 10-30 turns in the circulator ring until the beam quality is poor, and then back to the ERL for energy recovery. In this scheme the beam current and bunch repetition frequency in ERL can be reduced by a factor 10-30.

Figure 1: Schematic of ERL based bunched beam cooler (black) with option for future recirculation (green).
A critical component in this scheme is the ultra-fast
:RUN▯VXSSRUWHG▯E\▯-HIIHUVRQ▯6FLHQFH▯$VVRFLDWHV▯//&▯XQGHU▯8▯6▯'2(▯ &RQWUDFW▯1R▯▯'(-
$&▯▯-▯▯25▯▯▯▯ .yulu@jlab.org▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯
kicker that periodically deflect individual electron bunches in and out of the circulator ring from and to the driver ERL, leaving the orbit of adjacent bunches in the circulator ring undisturbed. To avoid the interference to the undisturbed bunches, the half pulse width should be very short (less than the bunch spacing 2.1 ns for a 476.3 MHz bunch train). 3XOVHG▯SRZHU▯VXSSOLHV▯▯HVSHFLDOO\▯ZLWK▯ WKHVH▯
FKDUDFWHULVWLFV▯ DUH▯ EH\RQG▯ VWDWH▯ RI▯ WKH▯ DUW▯▯ DQ▯ DOWHUQDWLYH▯ GULYLQJ▯ PHWKRG▯
LV▯ VXPPLQJ▯ VLPSOH▯ FRVLQH▯ ZDYHV▯ DW▯ VXE-IUHTXHQFLHV▯ RI▯ WKH▯ ILQDO▯ EHDP▯
UHSHWLWLRQ▯ IUHTXHQF\▯ with appropriate phase and amplitudes WR▯
JHQHUDWH▯ D▯ FRQWLQXRXV▯ ZDYHIRUP▯ >5-6], as shown in Fig.2, the total kick voltage is 55kV in this paper, which will give a 1mrad deflection angle for 55 MeV electron bunch.

BEAM DYNAMICS ANALYSIS FOR THE ULTRA-FAST KICKER IN
CIRCULAR COOLER RING OF JLEIC *

Y. Huang†,1,2,3, H. Wang3, R.A. Rimmer3, S. Wang3
1. Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou 730000, China.
2. University of Chinese Academy of Sciences, Beijing 100049, China.
3. Thomas Jefferson National Accelerator Facility, Newport News, VA 23606, USA.
Abstract
An ultra-fast kicker system consisting of four quarter wavelength resonator based deflecting cavities was developed that simultaneously resonates at 10 subharmonic modes of the 476.3MHz bunch repetition frequency. Thus every 10th bunch in the bunch train will experience a transverse kick while all the other bunches are undisturbed. This fast kicker is being developed for the Energy Recovery Linac (ERL) based electron Circular Cooler Ring (CCR) in the proposed Jefferson Lab Electron Ion Collider (JLEIC, previously MEIC). The electron bunches can be reused 10-30 turns thus the beam current in the ERL can be reduced to 1/10 - 1/30 (150mA
- 50mA) of the cooling bunch current (1.5A). In this paper, several methods to synthesize such a kicker waveform will be discussed and the comparison made by beam dynamics tracking in Elegant.

INTRODUCTION
Cooling of ion beams is critical in delivering high luminosities for the proposed JLEIC [1-4]. The present JLEIC design utilizes a scheme of multi-stage cooling, a DC cooler in the booster and bunched beam cooler in the ion collider ring. For energy efficiency and to minimize the power to be dissipated in the beam dump, an ERL based electron cooler configuration is being developed.
The conceptual layout of the single turn ERL based bunched beam cooler ring is shown in Fig.1 (black) [12,4]. In the future high luminosity upgrade, high intensity electron beam is needed. A circulator ring was proposed to reuse the electron bunches, as shown in Fig.1 (green). Electron bunches will circulate 10-30 turns in the circulator ring until the beam quality is poor, and then back to the ERL for energy recovery. In this scheme the beam current and bunch repetition frequency in ERL can

Figure 1: Schematic of ERL based bunched beam cooler
(black) with option for future recirculation (green).
A critical component in this scheme is the ultra-fast

*Work supported by Jefferson Science Associates, LLC under U.S.DOE Contract No. DE-AC05-06OR23177
kicker that periodically deflect individual electron bunches in and out of the circulator ring from and to the driver ERL, leaving the orbit of adjacent bunches in the circulator ring undisturbed. To avoid the interference to the undisturbed bunches, the half pulse width should be very short (less than the bunch spacing 2.1 ns for a 476.3 MHz bunch train). Pulsed power supplies, especially with these characteristics are beyond state of the art, an alternative driving method is summing simple cosine waves at sub-frequencies of the final beam repetition frequency with appropriate phase and amplitudes to generate a continuous waveform [5-6], as shown in Fig.2, the total kick voltage is 55kV in this paper, which will

Figure 2: Flat-top kicker waveform (bottom) resulting from summation of a DC offset and10 subharmonics of the nominal bunch frequency of 476.3MHz (top).

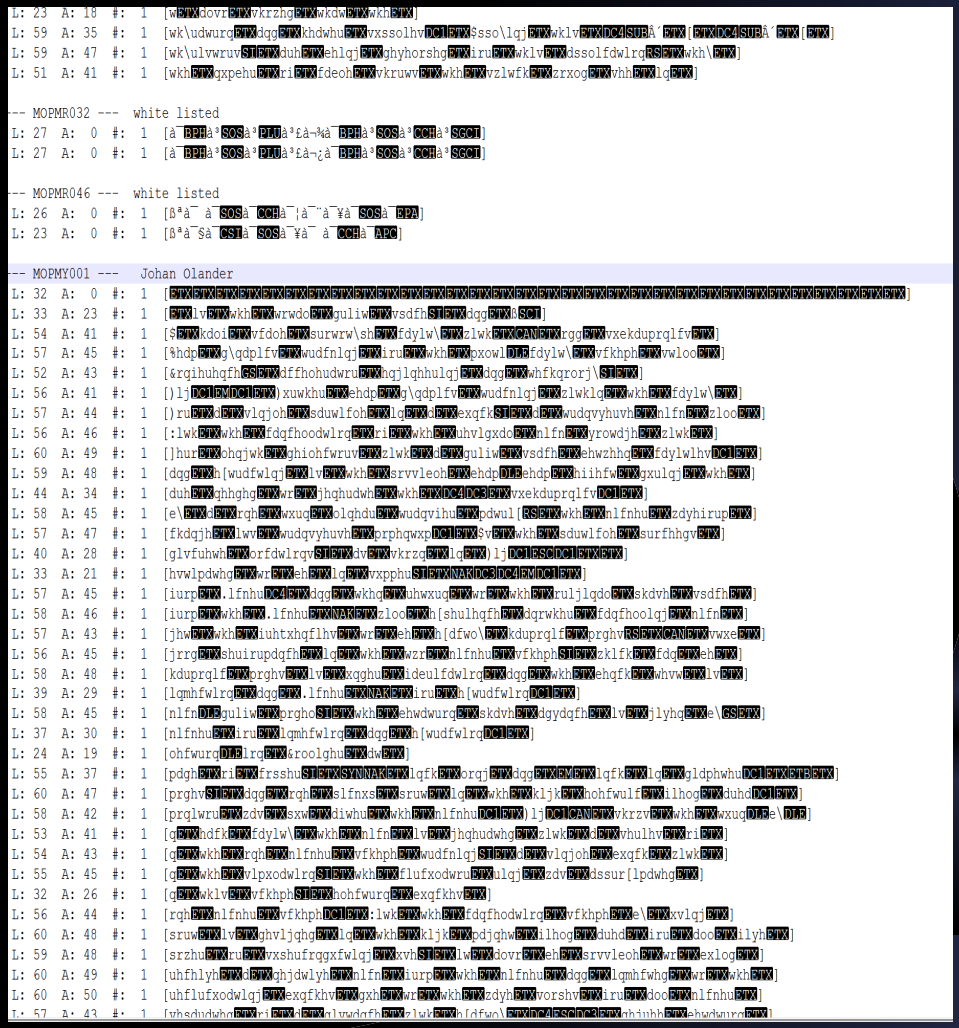
* Tools & Methods cont.

Broken Papers:
reported by scan-keywords.pl

It can happen on the Author's side or when editing a paper in PDF. Most often it is caused by entering a text where the font is missing and has to be embedded.

Depending which font and where it is entered the encoding of the pdf file breaks.

The internal representation of a character is not anymore 1:1 to a readable character. As a result the text is not anymore searchable (in full) which is needed for the search engine at CERN.



*Tools & Methods cont.

Page Checks:
reported by pagecheck.pl

It reports problems with PDFs like

- fonts not embedded
- wrong page size
- wrong page count
- too many fonts
- missing QA
- other problems with PDF

```
MOPPT024   Editor: Jan Chrin
           Status  Green
         # missing QA
MOPPT025   Editor: Volker RW Schaa
           Status  Green
         # missing QA
MOPMY001   Editor: Johan Olander
           Status  Green
         # possible problems with non JACoW page size: '612 x 792'
TUPOR020   Editor: Christine Petit-Jean-Genaz
           Status  Green
         # #fonts  128
TUPOY021   Editor: Todd Satogata
           Status  Green
         # #fonts  256
 TH2PB01   Editor: Sue Waller
           Status  Green
           QA by   Jan Chrin
           page count ok ( 5 pages)
         # font "TimesNewRoman,Bold" type "TrueType" not embedded
         # font "TimesNewRoman,Italic" type "TrueType" not embedded
         # font "TimesNewRoman" type "TrueType" not embedded
THPMB009   Editor: John Poole
           Status  Green
         # possible problems with non JACoW page size: '595 x 841'
         # #fonts  107
THPMW035   Editor: Todd Satogata
           Status  Green
         # possible problems with non JACoW page size: '612 x 792'
```

*Tools & Methods cont.

Tearing Boxes:
reported by `boxcheck.pl`

This problems appears less frequently nowadays,

- it is Word problem
- there is a fix
- the PDF have to be redone from source

The Problem

- Tearing of columns appears in the paper. Sometimes with visible shifts of column parts
- Text seems to be multiple times in the PDF and displaying is suppressed by bounding boxes

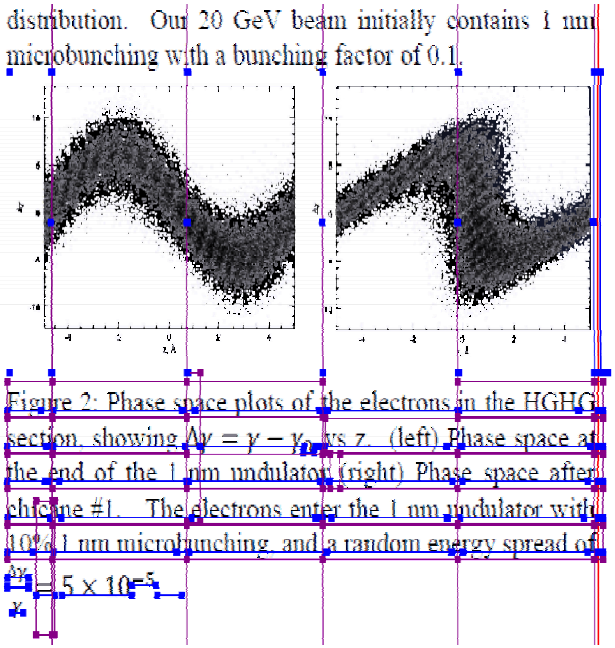

distribution. Our 20 GeV beam initially contains 1 nm microbunching with a bunching factor of 0.1.

Figure 2: Phase space plots of the electrons in the HGHG section, showing $\Delta\gamma = \gamma - \gamma_0$ vs z. (left) Phase space at the end of the 1 nm undulator (right) Phase space after chicane #1. The electrons enter the 1 nm undulator with 10% 1 nm microbunching, and a random energy spread of $\Delta\gamma/\gamma = 5 \times 10^{-5}$

*Tools & Methods cont.

Author accepted YELLOW dot paper, but requests changes:
reported by `/rpt_user_dot_reassign.html`

NA-PAC 2016 Paper "Dots" Reassigned by Authors

Volker RW Schaa

NAPAC2016

Logout Search My Schedule Home Find Profiles

Paper ID	Editor	Timestamp	Author Comments
SUPO01	Maria A. Power	21-Oct 17:49:48	
SUPO12	Janet Lee Bergman	13-Oct 00:40:33	After Eq. (4), please change "duopdecapole" to "duodecapole".
SUPO13	Kathryn Fillinger	14-Oct 00:20:20	
SUPO17	Kim Miller	11-Oct 03:49:09	
SUPO27	Amy McCausey	11-Oct 00:49:30	
SUPO31	Cathy Eyberger	13-Oct 22:42:30	
SUPO37	Kim Miller	13-Oct 14:25:22	
SUPO41	Kathryn Fillinger	14-Oct 15:53:24	
SUPO42	Maria A. Power	21-Oct 15:47:52	
SUPO43	Maria A. Power	23-Oct 14:09:15	Thank you.
SUPO46	Cathy Eyberger	14-Oct 06:20:26	
SUPO49	Kim Miller	13-Oct 00:24:06	Thanks!
SUPO52	Maria A. Power	13-Oct 19:25:52	
SUPO57	Cathy Eyberger	12-Oct 23:41:01	
SUPO59	Volker RW Schaa	14-Oct 19:15:07	
SUPO60	Volker RW Schaa	19-Oct 20:07:24	
SUPO61	Kathryn Fillinger	13-Oct 04:09:59	
SUPO62	Amy McCausey	10-Oct 20:43:22	
MOA2CO04	Volker RW Schaa	09-Oct 20:30:24	Looks good.
MOA3CO04	Volker RW Schaa	13-Oct 04:30:53	My apologies, did try to get all your edits in but see now that I missed some. Did not realize the editor's source version was available to me. Sorry to increase your work load and thank you for making the corrections.
MOA4IO02	Kim Miller	11-Oct 19:45:45	
MOB2CO04	Kim Miller	12-Oct 18:55:33	

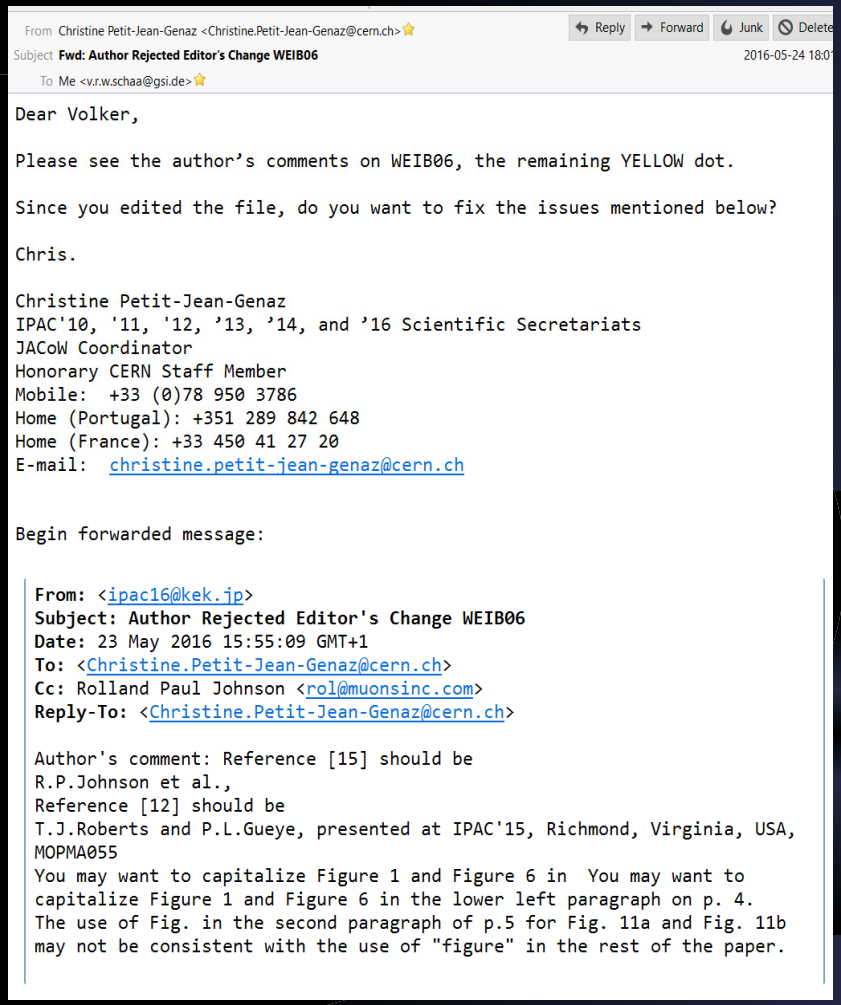
*Tools & Methods cont.

Author Rejected Changes:
reported by mail to Administrator

Email with rejection goes to the conference administrator. Therefore it has to be checked carefully for messages with the subject line:
Author Rejected Editor's Change <paper_id>

Entry in SPMS (email of administrator) to be checked:

/params.show_cats?cat=MAIL
-> Administrators' Email Address xxx



From Christine Petit-Jean-Genaz <Christine.Petit-Jean-Genaz@cern.ch>
Subject **Fwd: Author Rejected Editor's Change WEIB06**
To Me <v.r.w.schaa@gsi.de>
Reply Forward Junk Delete
2016-05-24 18:0

Dear Volker,

Please see the author's comments on WEIB06, the remaining YELLOW dot.

Since you edited the file, do you want to fix the issues mentioned below?

Chris.

Christine Petit-Jean-Genaz
IPAC'10, '11, '12, '13, '14, and '16 Scientific Secretariats
JACoW Coordinator
Honorary CERN Staff Member
Mobile: +33 (0)78 950 3786
Home (Portugal): +351 289 842 648
Home (France): +33 450 41 27 20
E-mail: christine.petit-jean-genaz@cern.ch

Begin forwarded message:

From: <ipac16@kek.jp>
Subject: Author Rejected Editor's Change WEIB06
Date: 23 May 2016 15:55:09 GMT+1
To: <Christine.Petit-Jean-Genaz@cern.ch>
Cc: Rolland Paul Johnson <rol@muonsinc.com>
Reply-To: <Christine.Petit-Jean-Genaz@cern.ch>

Author's comment: Reference [15] should be
R.P.Johnson et al.,
Reference [12] should be
T.J.Roberts and P.L.Gueye, presented at IPAC'15, Richmond, Virginia, USA, MOPMA055
You may want to capitalize Figure 1 and Figure 6 in You may want to capitalize Figure 1 and Figure 6 in the lower left paragraph on p. 4.
The use of Fig. in the second paragraph of p.5 for Fig. 11a and Fig. 11b may not be consistent with the use of "figure" in the rest of the paper.

* Preparations for Proceedings Publication

- file threshold = 1
- NO unassigned files

Your status page might look like this

IPAC 2016 Statistics

Volker RW Schaa

IPAC16

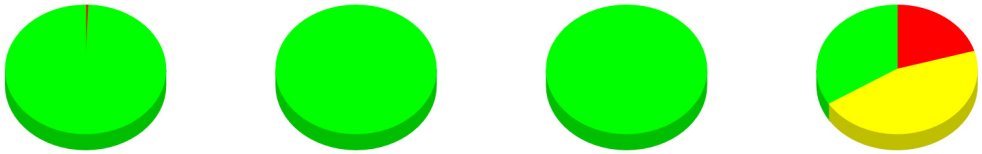
Logout Search My Schedule Home Find Profiles

Contributions (1277)		
Assignable	1269	99.37%
No Files	8	0.63%
Unassigned	0	0.00%
Assigned	1269	100.00%

Editor		
Red	1	0.08%
Yellow	0	0.00%
Green	1268	99.92%
w/Editor	0	0.00%

Final QA		
Final QA Failed	0	0.00%
QA Remaining	-1	-0.08%
Final QA Passed	1269	100.08%
Publishable	1268	100.00%

Initial		
Red	260	20.49%
Yellow	577	45.47%
Green	432	34.04%



Unassigned Papers By Platform/File Type

Platform	File Types	Assigned	Unassigned
	Totals	0	0

View All Papers by Platform/File Type

Activity Log

Count	Activity
15,069	File Uploaded
3,272	Abstract Updated
2,320	Abstract Initial QA Performed
2,143	File Removed
1,829	Edit Complete
1,307	Final QA Passed
1,290	Abstract Created

Error Log

Count	Pct	Running	Error Type
511	18.18%	18.18%	TC06 Reference or Reference formatting incorrect (missing, multiply defined, wrong order, indentation, hyperlink, inconsistent, wrong)
382	13.59%	31.77%	TC04 Figure formatting incorrect (outside margins, single/multiple line caption not centred/justified or placed above, Caption wrongly labeled [abbreviated, colon missing, wrong font size, bold/italic])
335	11.92%	43.69%	TC03 Table formatting incorrect (not centered, outside margins, caption below table, wrongly labeled, not in Initial Caps, single/multiple line caption not centred/justified)
322	11.45%	55.14%	TC02 Text formatting incorrect (paragraphs, section/sub-section headings, indentation, column/intercolumn width, wrong text flow, number/unit split over lines))

Preparations for Proceedings Publication

- file threshold = 1
- NO unassigned files
- all reports do not show problems:
  - no "broken papers“; "page check" OK; no "tearing boxes“
- all papers have GREEN status and are publishable
  - QA is done; poster police entries have been made
- all author change requests are answered
- poster pdf files have been checked (if posters will be published)
- all entries in the config file are correct
  - ISBN
  - conference specific data (name, site, title, date, series, number, editors, ...)
  - data export enabled (DOI, bibliography/citation)
  - proceedings volume setting

*Proceedings Entry Page

- decide on layout
- gather material beside proceedings
  - Chairman's Foreword
  - Committees list
  - Participants list
  - Conference Photos
- prepare material
  - html rather than pdf
  - photo album (size <5% of scientific material!)

*Proceedings Entry Page - horizontal”

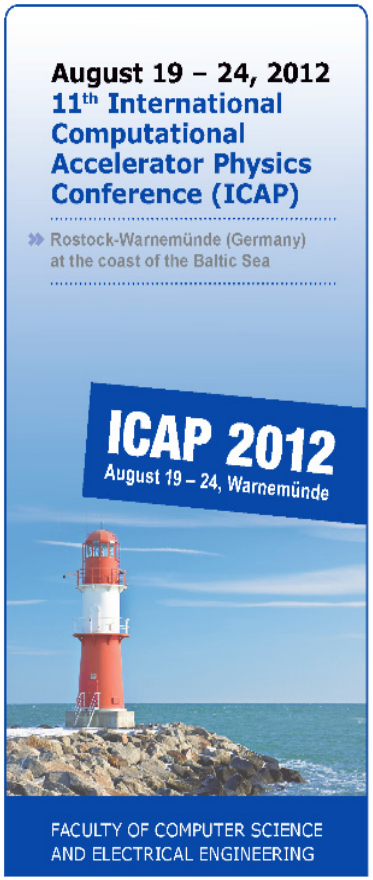
IPAC2016 **Proceedings of the 7th International Particle Accelerator Conference**

June 2016

ISBN 978-3-95450-147-2

* Entry page "vertical"

ICAP2012: Proceedings of the 11th International Computational Accelerator Physics Conference



Index of papers by:

ICAP2012 was hosted by the University of Rostock and held at Rostock-Warnemünde, Germany, from August 19–24, 2012

Universität Rostock Traditio et Innovatio

Editorial Board: Dirk Hecht (Uni Rostock), Michaela Marx (DESY), Volker RW Schaa (GSI)

October 2012

ISBN 978-3-95450-116-8

* Entry page - “mixed”

Proceedings of the 10th European Workshop on Beam Diagnostics and Instrumentation for Particle Accelerators

The links below take you to Portable Acrobat Format (PDF) files of all invited and contributed papers, together with slides from oral presentations and additionally posters. With 291 registrants DIPAC'11 was the largest and the last event in the DIPAC conference series. In the future DIPAC will be replaced by IBIC, a fusion between DIPAC and BIW (Beam Instrumentation Workshop).

Index of papers by:

- Session
- Classification
- Author
- Institute
- Keyword

Proceedings Volume [133 MB]
The complete volume of papers

- Committees
- Participants
- Abstract Booklet
- Photo Gallery

DIPAC 2011 was hosted by Deutsches Elektronen Synchrotron and held aboard the museum freighter Cap San Diego, during May 16-18, 2011 in Hamburg, Germany.

DIPAC ISSN 2225-4633

Editors: Michaela Marx (DESY), Jan Chrin (PSI), Ian Martin (DIAMOND), Raphael Mueller (GSI) and Volker RW Schaa (GSI) August 2011
The Photo gallery is by courtesy of Dirk Noelle (DESY) and Michaela Marx (DESY).

Final Checks

- broken links (reported by `Xenu.exe`)
- orphaned files (reported by `Xenu.exe`)
- conference specifics?
- editorial board mentioned?
- ISBN correct?
- publication date?
- inspire dataset (checked and delivered?)
- DOI dataset (checked and uploaded?)

*Questions?

TM2016: Proceedings of the Team Meeting 2016

The Team Meeting 2016 was hosted by
TRIUMF
Vancouver, BC, Canada 7—10 November, 2016

TRIUMF

Dez 2016?