

SPACE-CHARGE SIMULATIONS OF NON-SCALING FFAGS USING PTC

D.T. Abell, G.I. Bell, A.V. Sobol, Tech-X, Boulder, Colorado;
A.G. Ruggiero, D. Trbojevic, BNL, Upton, Long Island, New York;
E. Forest, KEK, Ibaraki

Abstract

Non-scaling FFAGs are sensitive to a slew of resonances during the acceleration ramp. An important consideration - because it affects the amount of rf power required - will be the speed at which resonances must be crossed. We present simulations of possible non-scaling FFAGs, focusing especially on the effects of space charge, using newly developed capabilities in the code PTC*.

* E. Forest, Y. Nogiwa, F. Schmidt, "The FPP and PTC Libraries", ICAP'2006.

Supported in part by the DOE Office of Science, Office of Nuclear Physics under grant No. DE-FG02-06ER84508.

**CONTRIBUTION NOT
RECEIVED**