Joint DESY and University of Hamburg Accelerator Physics Seminar

Wednesday, 04.07.2018

(14:00 in Room 24/200)

PETRA IV: Towards Building and Operating the Brightest X-Ray Synchrotron Radiation Source of the Future

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Abstract

The next flagship project at DESY is expected to be the upgrade of the PETRA III synchrotron light source. The new PETRA IV facility will be the brightest SR source in the emerging landscape of 4th generation storage rings. I will give a brief overview of the PETRA IV project, and discuss target parameters and possible lattice solutions. Physics and technology challenges of designing and operating ultra-low emitttance rings such as non-linear beam dynamics, compact high-gradient magnetic systems, issues with electron beam optics measurement and correction, will be addressed. I will also discuss opportunities for advanced radiation production options, novel approaches to operation automation, and the roadmap to technical implementation.

NOTE THE UNUSUAL DATE, TIME, AND LOCATION

W.Hillert, (Univ. HH), I.Agapov (MPY) and M.Vogt (MFL).