Joint DESY and University of Hamburg Accelerator Physics Seminar

Wednesday, 30.10.2013

(10:30 in Room 459/30b)

A Semi–Analytical formula for the Power Optimization of a SASE FEL at SPARC–LAB

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Abstract

A novel procedure of real time SASE FEL power optimization has been successfully developed at the SPARC test facility. The actual FEL, including electron and optical beam transport, is described through a set of analytical or semi–analytical formulae. The system is designed in such a way that the characteristics of the transport elements and the laser intensity are measured and adjusted, via a real time computation, during the experimental run, to obtain the optimization of the laser performances. The results have been confirmed by Genesis and by a preliminary experiment.

NOTE THE UNUSUAL DATE AND TIME

J.Roßbach (Univ. HH) and M.Vogt (MFL).