Alberto Bacci
(INFN Milan & University of Milan)

mardi 13 juin 2017 à 11h00

Beam dynamics optimization by using Genetic Algorithms and the ELI-NP case

In the last few years, in the field of particle accelerators and beam dynamics different works on the Genetic Algorithms (GA) use have been performed. Mainly these works focus on high brightens electron beam lines optimization, or generally on multi-dimensional problems solution. In the seminar, it will be given an introduction on GAs, it will be presented the GIOTTO code, with its applications for ultra-short electron bunch production, by the velocity bunching optimization and it will be presented GIOTTO application to the ELI-NP case (Extreme Light Infrastructure – Nuclear Physics, in Romania), for beam parameters optimization and jitters analysis.

Salle 101 - Bât. 200, Orsay