

Title: Dr.

Lecturer: Bernhard Holzer

Date and Times:

- Monday 19th July from 11:15am-12:00am
- Tuesday 20th July from 11:15am-12:00am
- Wednesday 21st July from 11:15am-12:00am
- Thursday 22nd July from 11:15am-12:00am
- Friday 23rd July from 11:15am-12:00am

Summary of the proposed talk: Accelerators and Beam Dynamics

The presentation will cover the dynamics of single particles in a storage ring as well as the description of the beam as an ensemble of many particles. We will explain the techniques that we use to calculate the geometry of a large synchrotron (like the LHC) and we will consider the formalism that allows to obtain beam dimensions and dynamic properties under the influence of the magnetic fields. Nonlinear effects and space charge problems are briefly mentioned and in the end we hope we can prove that these machines are running nevertheless!

Prerequisite knowledge and references:

CURIOSITY

Biography-

Brief CV: 1982-1988 study of physics at the University of Heidelberg and Universite' Scientifique et Medicale Grenoble 1988-1991 PhD Student at DESY, Hamburg 1991-1993 Post Doc at DESY 1993-2008 member of staff at DESY, 1999-2007 coordinator of the HERA storage ring 2008 LHC project associate at CERN since 2009 CERN staff member

Publications: thousands