

ASP2014

Report of Abstracts

Abstract ID : **125**

Beam Dynamics

Abstract content

Status: My lecture is to describe how charged particles move in an accelerator environment. I will mention why we need magnets and rf cavities and how they work together to form an accelerator design. I will introduce the basic physics and mathematics that are used to analyze the particle motion in an accelerator. By optimizing the accelerator design, intended high quality of the beam can be achieved. As a prominent application of the beam dynamics being described, synchrotron radiation storage ring facility will be used as an illustration. If time allows, I will very briefly mention the basic beam dynamics mechanism for free electron lasers.

Summary

Primary author(s) : CHAO, Alex (Stanford Linear Accelerator Center)

Presenter(s) : CHAO, Alex (Stanford Linear Accelerator Center)

Status: SUBMITTED

Submitted by **MUANZA, Steve Guy** on **Monday 04 August 2014**