

E CLOUD10

Friday, October 8, 2010 - Tuesday, October 12, 2010

Cornell University Statler Hotel

Scientific Program

The 49th ICFA Advanced Beam Dynamics Workshop will take place from October 8 to 12, 2010 at Cornell University, Ithaca, New York, USA.

The development of the electron cloud (EC) in accelerator vacuum systems remains a significant issue for the operation of present and planned high intensity accelerators. The interaction of the cloud with the beam can lead to single and multi-bunch instabilities, emittance growth, and betatron tune shifts. The presence of the cloud in the beam chambers can result in a rapid rise in vacuum pressure, significant heat loads on cryogenic surfaces, and can interfere with beam diagnostics. Since the last E CLOUD workshop in 2007, an intense R&D effort has been underway to further understand the physics of the EC and to investigate new methods to mitigate the EC effects. The E CLOUD10 program will focus on: a review of EC observations at existing machines; recent experimental efforts to characterize the EC (including EC diagnostics, experimental techniques, characterization of mitigation methods, and characterization of beam instabilities and emittance growth); the status of EC physics models and simulation codes and their comparison to recently acquired experimental data; and, the mitigation requirements and potential performance limitations imposed by the EC on upgraded and future machines. In addition to the technical reports at the workshop, E CLOUD10 will present a set of introductory lectures for students and those new to the field on the opening day of the workshop.

Poster

A poster session will be held the afternoon of Sunday Oct. 10th. Posters will remain available for viewing and discussion until Tuesday, Oct. 12th.

Oral Sessions

Plenary Oral Sessions