Joint DESY and University of Hamburg Accelerator Physics Seminar

Thursday, 19.04.2012

(13:00 in Room 200/24)

The RHIC Proton Luminosity Upgrade Project

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Abstract

The polarized proton luminosity of the Relativistic Heavy Ion Collider (RHIC) is limited by the beam–beam effect. To increase the luminosity, head–on beam–beam compensation is required. During the 2012 summer shutdown a pair of electron lenses will be installed in RHIC, allowing the beam–beam parameter to be increased by roughly 50%. To realize the corresponding luminosity increase, bunch intensities have to be increased by 50%, to $2.5 \cdot 10^{11}$ protons per bunch. The head–on beam–beam compensation concept will be introduced, and the various RHIC subsystems that are most affected by the intensity increase will be shown, together with beam studies performed to ensure their readiness.

NOTE THE UNUSUAL DATE, TIME AND LOCATION !

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

Visit our web site at `http://www-mpy.desy.de/AccPhySemDESY/index.html`