

DIESE WOCH

PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 22.01.2014, 16 Uhr c.t.
Großer Hörsaal, Raum _0.111,
Max-von-Laue-Str. 1

Dr. Giuliano Franchetti
GSI Helmholtzzentrum für Schwerionenforschung,
Darmstadt

*„ Nonlinear dynamics in the realm
of high intensity beams “*

The transport and acceleration of charged particles requires technical development and clear understanding of the particle dynamics. However, the production of high intensity beams (FAIR, JPARC, LHC Intensity Upgrade) or of high energy beam (LHC) makes the design less obvious. An accelerator becomes a world where complex mechanisms takes place (nonlinear resonances, dynamics aperture, collective effects, instabilities, electron cloud, etc.). Mechanisms with short time scale conflicts with mechanisms of long time scale and new effects become important for the beam control. This lecture will introduce the physics of high intensity beams and the nonlinear beam dynamics, and address the ongoing studies of resonance crossing.

Die Dozierenden der Physik

Kolloquium