Physical Research Laboratory, Ahmedabad

Colloquium 17-20

Speaker: **Prof. Amita Das**
Senior Professor, Institute for Plasma Research (IPR), Gandhinagar
Title: **"Electron Transport in Plasmas "**
Time: **Wednesday, 15 November 2017, 16.00 hrs.**
Venue: **K. R. Ramanathan Auditorium, PRL**

Abstract

Understanding electron beam transport and energy deposition in plasma is crucial in the context of many applications such as fast ignition etc., where it is desirable to dump energy in an over dense compressed core of the target where lasers are unable to penetrate. The talk will cover complex collective physics associated with electron beam plasma instabilities, the associated evolution of magnetic fields and the ensuing turbulence leading to possible anomalous behavior of transport. The experimental evidences in support of anomalous transport will be provided. A novel effect arising due to finite transverse beam size will also be demonstrated.

The Speaker

Prof. Amita Das joined IPR as a faculty member in 1990 and has been working in various aspects of theoretical Plasma Physics. She completed her M. Sc (1986) and went on to pursue Ph.D (1990) from IIT Kanpur in condensed matter Physics on Defect Energetics in Semiconductor Alloys. She was awarded the DAE outstanding research investigator award for a project on "Plasma Turbulence" (2005). She is a fellow of Indian Academy of Science, Bangalore; National Science Academy of India, Allahabad and Gujarat Science Academy. Her main interests are in fast electron time scale phenomena in plasmas, laser plasma interaction, strongly coupled plasmas etc.

Tea at 15:30 hrs.

ALL ARE WELCOME