

Colloquium # 242

Institute for Plasma Research

Title : Plasma Transport and Turbulence: Some Basic Principles

Speaker : Prof. A Thyagaraja
Culham Centre for Fusion Energy and
Bristol University

Date : 28th November 2014 (Friday)

Time : 03.30 PM

Venue : Seminar Hall, IPR

Abstract:

In this talk I give a general account of why transport of particles, momentum and energy is crucial in the consideration of the tokamak fusion devices. We then turn our attention to the collisional and turbulent contributions to transport, concentrating, in particular, on “anomalous transport”. The rather broad and general description is then given, with suitable examples, of the phenomenon of turbulence in fluids and thermonuclear magnetic plasmas. An account is also provided of how and why this turbulence is crucial in determining the dynamics and energetics of tokamaks.
