

# COLLOQUIUM

## “Electron Tunneling”

**Abstract:** If you pick up a tennis ball and throw it to the wall a million times you know that it will bounce back towards you every time you throw it, unless you throw hard enough to shatter the wall. This everyday experience is however violated when the particle is very small and very light: In such a case some of the particles will pass through the wall without disturbing the wall. This quantum mechanical process called tunneling, is ubiquitous for subatomic particles like electrons, protons and neutrons, and forms the basis of a variety of technological gadgets used in our everyday life (computers, cellphones etc...) In this session I will take you through this fascinating phenomenon, starting from its discovery to the way it has transformed our everyday life.

By

**Dr. Pratap Raychaudhuri**

Associate Professor  
Department of Condensed Matter Physics and Materials Science  
Tata Institute of Fundamental Research

**Day & Date : Tuesday, September 10, 2013**

**Time : 15:45 hrs**

**Venue : Seminar Room, PF-AG-14, Prefabs, Near Annabhau  
Sathe Bhavan University of Mumbai, Vidyanagari,  
Kalina Campus, Mumbai - 400 098**

*All are Welcome*