

HYPHI COLLOQUIUM

Date: 6 Mar 2024, Wednesday

Time: 16:00 Hrs (Tea/Coffee 15:45 Hrs)

Venue: TIFRH Auditorium

Title: Attosecond Physics: Let there be light and electron

Speaker: Prof. Gopal Dixit, Department of Physics, IIT

Bombay, India

Abstract:

Inducing and probing the motion of electrons during numerous physical and chemical processes in real-space and in real-time are of immense importance as it can provide important insights into the mechanisms involved. This year Physics Nobel Prize is awarded to Attosecond Physics and its application to electron motion. In this talk, after discussing the importance of attosecond physics, I will showcase few examples of our group where attosecond physics promises to bring disruptive changes in technological, such as light-driven valleytronics and valley transistor, debate about the massless nature of Weyl fermions in Weyl semimetals, attosecond charge migration in molecules to name but a few. The detailed activities of our attosecond group can be seen at https://attosecondindia.com.