

15th February 2013 – 14:00
CFEL bldg. 99 , seminar rooms I-III

Jon Marangos

Imperial College, London, UK

Controlling recollisions to extract attosecond dynamics

In this talk I will briefly overview the objectives of attosecond science and then go on to describe in outline how laser driven electron recollision is the basis of essentially all the attosecond measurement techniques so far employed. I will describe the method of chirp encoded information retrieval from high harmonic generation that my group has been developing for a number of years. The technical developments that are underway to extend the application of chirp encoded information retrieval in HHG to larger more fragile molecules will be briefly outlined. Finally I will discuss inelastic processes induced by laser driven electron recollision and show recent results that reveal the role of several ionic states in the recollision induced ionization dynamics in molecules.

