Molecular and Biomolecular Electron Transfer Processes: From the Single Molecule to the Cellular Length Scales

Title: Molecular and Biomolecular Electron Transfer Processes: From the Single Molecule to the Cellular Length Scales.
When: Tuesday, May 23, (2017), 12:00.
Place: Departamento de Física Teórica de la Materia Condensada, Facultad Ciencias, Module 5, Seminar Room (5th Floor).
Speaker: Prof. Spiros S. Skourtis, Department of Physics, University of Cyprus, Nicosia Cyprus.

Molecular electron transfer processes are ubiquitous in biology and chemistry and are central to the molecular electronics and energy materials technologies. Biological electron transfer mechanisms are particularly rich, ranging from coherent tunneling to incoherent thermally-activated hopping. I will give a review of recent trends in the theory and simulation of biomolecular electron transfer rates, focusing on the roles of electronic coupling and energy level fluctuations. I will also discuss electron-transport pathway control over length scales that range from the small-molecule to the cellular levels.

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