CHEMISTRY COLLOQUIUM

Guest Speakers: Professor Ignacio Franco University of Rochester Department of Chemistry Wednesday, Novermber 14, 12:00pm Hutchison Hall Room 140 Lander Auditorium University of Rochester Department of Chemistry



Title: "Molecules under Torture: Lasers, Forces, Voltages, and Beyond"

Abstract:: In this talk, I will summarize our efforts developing novel schemes to control matter through the application of external stimuli, a topic that we like to refer to as "Molecules under Stress". Specifically, I will first discuss how non-resonant light can be used to create a novel class of laser-dressed materials with emerging electronic properties that can be very different from those observed near thermodynamic equilibrium. Then, I will summarize our progress understanding the decoherence processes that limit our ability to use quantum coherence to enhance molecular function. Last, I will exemplify our research efforts to advance molecular junctions as a platform for multidimensional electromechanical spectroscopies that operate at the single-molecule limit.



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