Physical Chemistry Seminar

Tuesday, April 8, 2014 | **11:00 am** | **Room 1315 Chemistry Building**

Measuring complex molecular structural dynamics in solution with high temporal and spatial resolution

Professor Munira Khalil

Department of Chemistry
University of Washington

Host: Professor Marty Zanni

This talk will focus on using ultrafast vibrational spectroscopy and X-ray absorption spectroscopy to understand structural dynamics and chemical reactivity in the ground and electronic states of transition metal complexes. I will describe our efforts at developing an understanding of the vibrational dephasing dynamics and photochemistry of a model Fe(II) nitrosyl complex. Next, I will describe our 2D IR experiments aimed at understanding the relationship between protein function and dynamics in the distal pocket of a nitric oxide delivery protein, Nitrophorin 4. Finally, I will discuss the use of time-resolved X-ray absorption spectroscopy to probe chemical reactions in solution.

Refreshments will be available prior to the seminar at 10:45 a.m. outside room 1315

Graduate Students may meet with the speaker at 1:00 p.m. in Room 8335