

PHYSICAL SEMINAR

“Time Resolved Spectroscopy of Molecular Dynamics: Comparing Different Approaches”



Guest Speaker:

Professor Thomas Weinacht

Stony Brook University

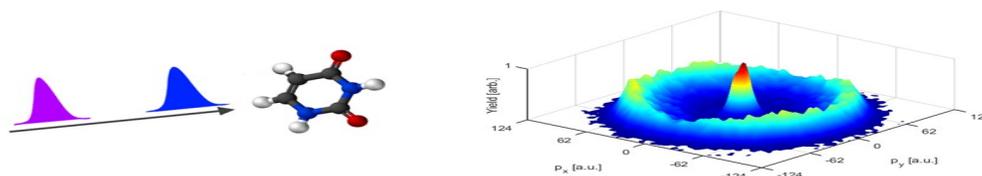
Department of Physics and Astronomy

Monday, October 1, 4:00pm

Hutchison Hall Room 473

University of Rochester

Department of Chemistry



Abstract:

In this talk I will compare different approaches to making "Molecular Movies". The aim is to capture molecular dynamics such as bond breaking, internal conversion and isomerization in real time using ultrafast laser pulses. Many different techniques provide windows on these dynamics, but there is no single approach that provides a complete picture. I will compare strong field ionization, time resolved photoelectron spectroscopy and ultrafast electron diffraction as probes of internal conversion and dissociation. I will compare all three techniques with ab initio calculations of the dynamics in order to highlight their strengths and weaknesses.

Host: Professor Ignacio Franco • Email: Ignacio.Franco@rochester.edu