SCIENCE SEMINAR

Thursday, Oct. 25 - Carson Taylor Hall 322

Dr. Francois Mauger

Louisiana State University Department of Physics and Astronomy

presenting

"Observing Electron Dynamics in Molecules Using Ultrafast Laser Pulses"

Electrons are the glue that holds coherent matter together. How they are arranged defines chemical bonds and how they move defines chemical reactions. The time-scales for electron dynamics in molecules, however, are exceedingly fast and often range down to the femtosecond (10^-15 s) regime or shorter. Advances in laser technology have allowed the development of ultrafast pulses of light that can be used to both observe and control these dynamics in "real time".

The duration of such pulses is comparable to the electron time scale and they can therefore be used as a reference "clock".

The seminar will discuss experimental and theoretical avenues for observing electron dynamics in molecules using ultrafast laser pulses, including ongoing efforts from LSU and collaborators.

Come at 3:30pm for refreshments, speaker at 4:00pm