



PHYSICS COLLOQUIUM

Speaker: Dr. Thomas Weinacht, Stony Brook University,

Molecular Attoscope: Pulse Shape Spectroscopy of Electronic Coherence

Friday, October 23, 2026 1:30 pm, PSB 160/161

Zoom: <https://ucf.zoom.us/j/97271704305?pwd=jBv3TPzoBmLhXsBCie7tABxPBBMjCb.1>

Meeting ID: 972 7170 4305 Passcode: 430

Abstract: Tracking the coupled motion of electrons and nuclei on their intrinsic timescales is essential to understanding and controlling photochemical transformations. I will discuss a "molecular attoscope" which uses shaped laser pulses in the deep ultraviolet to perform coherent measurements of electronic and nuclear dynamics in entangled molecular wave packets with attosecond precision.

BIO: Tom Weinacht received his PhD in physics from the University of Michigan in 2000. He carried out postdoctoral work at JILA/The University of Colorado Boulder from 2000-2002, when he became an assistant professor of Physics at Stony Brook University. He is currently a distinguished teaching professor of Physics and a fellow of the American Physical Society. He co-authored a graduate level textbook on time resolved spectroscopy entitled "Time Resolved Spectroscopy: An Experimental Perspective"