UCLA Department of Physics & Astronomy

COLLOQUIUM

Thursday, October 26th, 2023 at 4 p.m.
PAB 1-434

Lights, Camera, Action!
Filming the Quantum World

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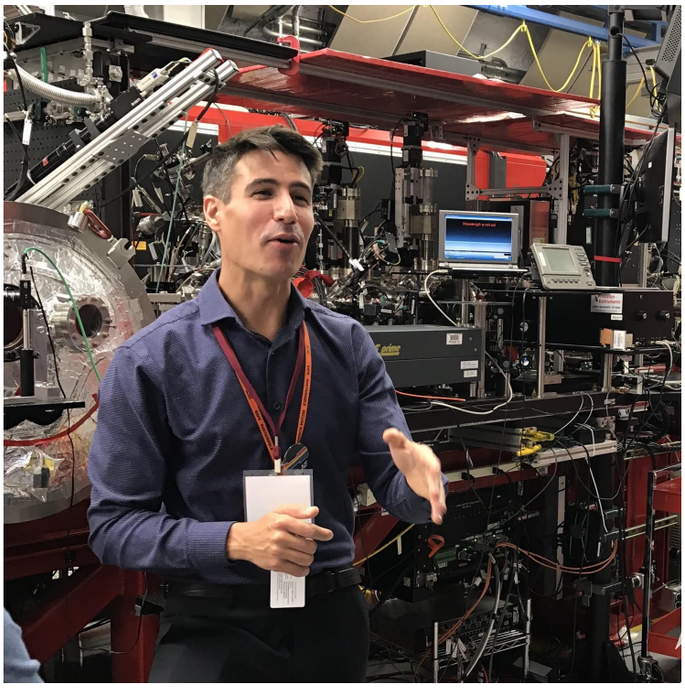

One of modern science's most important quests is to understand how the quantum world works: the realm of electrons, atoms, and molecules. Filming electronic transitions is the hallmark of today's frontiers in quantum phenomena. These motions occur in attoseconds to femtosecond timescales, 10-18 or one-quintillionth seconds and above, during which the most elusive yet consequential physical processes determining functional material and biological properties occur.

Studying the ab initio photo-reactivity and quantum dynamics to understand and control the functional properties of mesoscopic physical systems. Motivated by this overarching relevance, we will review some of the most exciting light and particle sources to enable filming quantum phenomena as well as some of their most recent demonstrations in unraveling chemical and biological functions.

Refreshments at 3:30 p.m. PAB Patio. **Undergraduates Welcome!**