PHD POSITION: SIMULATING TIME-RESOLVED PHOTOELECTRON SPECTRA OF BIOMIMETIC PHOTO-SWITCHES WITH NONADIABATIC DYNAMICS

The EU-funded Marie-Curie doctoral network LUMIERE is an inter-disciplinary project gathering chemists and physicists (https://lumiere-dn.eu/),studying the ultrafast photo-isomerization processes in photo-switches designed to mimic these processes used by Nature in vision (rhodopsin) or photo-taxis (PYP). More specifically, we aim at establishing rational design principles, which will help optimizing the photo-isomerisation quantum yield (iso-QY)in the different families of synthetic photo-switches under study.
A central experimental technique developed with LUMIERE is ultrafast photoelectron spectroscopy, which has the potential to reveal the energy landscape around conical intersections, which decide on the iso-QY. **A PhD position is available at the University of Würzburg (Germany),** where Pr. Roland Mitric is a world-leading expert for the **simulation of time-resolved photo-electron spectra.** In close collaboration with the experimental partners in Berlin, London and Strasbourg, the simulations will p enable a reliable interpretation of experimental signals. Details can be found here: https://lumiere-dn.eu/2024/12/19/time-resolved-photoelectron-spectra-from-large-scale-fragment-based-nonadiabatic-dynamics-dc8/

A Master's degree in Chemistry, Physics, or related fields is mandatory, as well as good skills in English (level B1).
Note that for Marie-Curie PhD projects the monthly salary, is 10-20% higher than the local national funding.

Application deadline: October 10th, 2025