DAMOP18-2018-020045

Abstract for an Invited Paper
for the DAMOP18 Meeting of
the American Physical Society

Ultrafast X-ray Spectroscopy of Conical Intersections

ALBERT STOLOW, University of Ottawa

Conical intersections are general electronic degeneracies in molecules and are the origin of ultrafast electronic and nuclear dynamics in molecular excited states. We discuss dynamics at conical intersections, using small hydrocarbon molecules as examples, and show how such dynamics may be probed by Time-Resolved Photoelectron Spectroscopy (TRPES) and Time-Resolved X-Ray Absorption Spectroscopy (TRXAS). In particular, we propose that TRXAS will be a uniquely powerful probe of the conical intersection itself.