



Canadian Association
of Physicists

Association canadienne
des physiciens et physiciennes

Contribution ID: 588

Type: **Invited Speaker** / **Conférencier(ère) invité(e)**

(I) Coherent Ultrafast Electronic Dynamics in Molecules

Thursday 10 June 2021 15:50 (5 minutes)

The non-adiabatic coupling of nuclear and electronic degrees of freedom underlies many fundamental processes in Nature, including solar energy conversion and photosynthesis. The formation of electronic coherences by nuclear motion is a new aspect of such dynamics and requires new measurement techniques and methods of analysis. We will discuss Ultrafast Time-Resolved X-ray Absorption and Time-Resolved Photoelectron Spectroscopy, powerful methods suited to addressing this problem. In particular, we present a new approach to fully separating electronic coherences from electronic population dynamics, a long-standing problem, based on the use and analysis of Time-Resolved Photoelectron Angular Distributions.

Author: Prof. STOLOW, Albert (University of Ottawa)

Presenter: Prof. STOLOW, Albert (University of Ottawa)

Session Classification: R3-2 Ultrafast Processes (DAMOPC) / Procédés ultrarapides (DPAMPC)

Track Classification: Atomic, Molecular and Optical Physics, Canada / Physique atomique, moléculaire et photonique, Canada (DAMOPC-DPAMPC)