

# Attosecond Photoemission Delays in Atoms and Molecules

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**Abstract:** Attosecond chronoscopy has revealed small but measurable delays in photoionization, characterized by the ejection of an electron on absorption of a single photon. Ionization-delay measurements in atomic targets provide a wealth of information about the timing of the photoelectric effect, resonances, and electron correlations. However, extending this approach to molecules presents challenges, such as identifying the correct ionization channels and the effect of the anisotropic molecular landscape on the measured delays. This talk will focus on some experimental measurements of ionization delays in molecules and their theoretical interpretation.



**Bio:** Prof. Alexandra Landsman graduated from Princeton University with a PhD in Plasma Physics. She worked on ultrafast laser-matter interaction at the Institute of Quantum Electronics at ETH Zurich. After leaving ETH, she was a Group Leader at the Max Planck Institute for the Physics of Complex Systems. Since 2019, she has been a tenured faculty at the Ohio State University. Her research focuses on the theory of strong field interactions with matter, and on attosecond delays following ionization.