Quantum Dynamics in Tailored Intense Fields

Contribution ID: 44

Type: Poster

Attosecond timing with spectral resolution near resonances

Wednesday 14 February 2018 17:00 (2 hours)

To directly observe the ultrafast motion of electrons in atomic or molecular systems is an aspect of fundamental physics and is achievable thanks to the generation of attosecond pulses in the XUV spectral range. A key advantage of attosecond pulse trains over isolated attosecond pulses is their high spectral resolution, while high temporal resolution is still retained [1]. I will introduce attosecond measurements using attosecond pulse trains near resonances and discuss the role of continuum-continuum transitions in attosecond time delay measurement within a perturbative approach.

In the future, these experiments will benefit substantially by the advent of high-repetition rate attosecond experiments based on optical parametric amplifier systems driving high-order harmonic generation [2].

[1] Isinger et al. Science 358, 893 (2017)

[2] Harth et al. Journal of Optics 20, 014007 (2018)

Primary author: HARTH, Anne (Max-Planck-Institut für Kernphysik, Heidelberg)

Presenter: HARTH, Anne (Max-Planck-Institut für Kernphysik, Heidelberg)

Session Classification: Poster session 1

Track Classification: Poster