

Tracking charge and spin dynamics using attosecond XUV pulses

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Few cycle optical fields allow manipulating electronic and spin degrees of freedom in solid state systems at optical clock rates faster than de-coherence. As an example I will discuss ultrafast bidirectional energy transfer between a light-field and the band-structure of silica and optically induced spin transfer in ferromagnetic heterostructures.

About the speaker:

Martin Schultze has helped developing attosecond spectroscopy to track electron dynamics and transfer the methods to the study of condensed phase systems. His chair for experimental physics at the Technical University Graz investigates ultrafast spin- and charge dynamics driven by optical fields using time-, energy- and momentum resolved electron spectroscopy

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