

21st June 2018, 15:00 s.t.

Marco Schröter

AG Molecular Quantum Dynamics

Insights in energy transfer and relaxation processes in molecular systems using polarization controlled two-dimensional electronic spectroscopy

The energy transfer and relaxation processes in molecular systems and aggregates, like light-harvesting complexes of bacteria and plants, are of major interest to understand the initial steps of photosynthesis. Ultrafast time-resolved spectroscopy techniques like transient absorption spectroscopy and two-dimensional electronic spectroscopy (2DES) provide valuable insights into these mechanism. In these methods multiple laser pulse interact with the sample, initiating and guiding multiple pathways for the dynamics. In my talk I will introduce the concept how control over the polarization of the individual pulses can be utilized to single out specific dynamics pathways. The insights obtainable via polarization controlled 2DES will be discussed on the examples of the FMO and LH2 complexes of photosynthetic bacteria.

Talk: English

Slides: English

Location: Institute of Physics, Albert-Einstein-Str. 24, HS 1