

Physikalisches Kolloquium



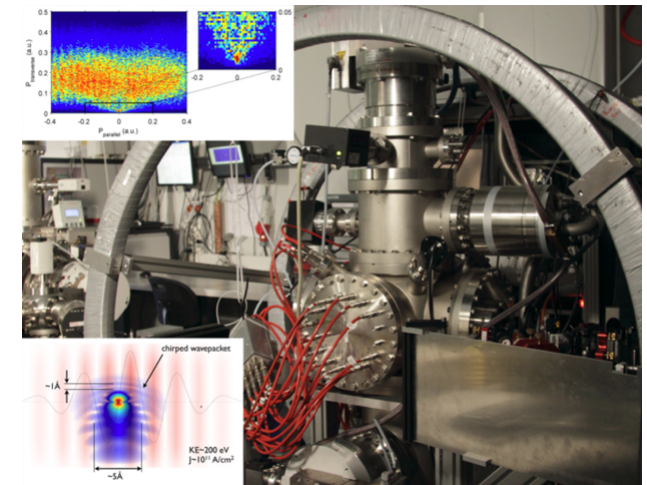
Thursday, 28.04.2016, 17:15, HS 100
Reception with coffee & cookies 16:45

Prof. Dr. Jens Biegert, ICFO, Barcelona, Spanien:

Electron recollision with mid-IR sources: Molecular Imaging and soft X-rays

Abstract

Electron recollision in an intense laser field is at the centre of attoscience research and gives rise to a variety of phenomena, ranging from the photo effect to coherent X-ray emission. We have, over the years, developed intense sources of waveform controlled mid-IR light, i.e. few-cycle duration and carrier to envelope phase stable pulses, to exploit ponderomotive scaling, quantum diffusion and quasi-static photo emission. I will describe the laser technology that enables this new direction of strong field research and our recent achievements in sub-Angstrom resolution imaging of aligned polyatomic molecules, the generation of attosecond pulses at the oxygen K-shell edge (530 eV) and application to soft X-ray absorption spectroscopy in condensed matter.



All of you interested in physics are cordially invited!