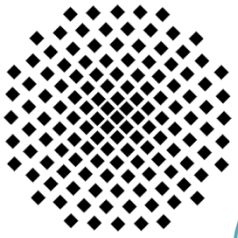
Stuttgarter Physikalisches Kolloquium

Fachbereich Physik, Universität Stuttgart
Max-Planck-Institut für Festkörperforschung
Max-Planck-Institut für Intelligente Systeme

Ansprechpartner: Prof. Harald Giessen
E-Mail: giessen@physik.uni-stuttgart.de
Telefon: 0711 - 685-65111



Dienstag, 20. Juni 2017	17:15 Uhr	Hörsaal V 57.01

Universität Stuttgart, Pfaffenwaldring 57, 70569 Stuttgart-Vaihingen

Gastgeber: Prof. Tilman Pfau, Universität Stuttgart, Telefon: 0711 - 685-68025

From extreme nonlinear optics to ultrafast atomic physics

Anne L'Huillier
Dept. of Physics, Lund University, Sweden

Abstract

The interaction of atoms with intense laser radiation leads to the generation of high-order harmonics of the laser field. In the time domain, this corresponds to a train of pulses in the extreme ultraviolet range and with attosecond duration. The short pulse duration and broad bandwidth of attosecond pulses allow us to measure the phase and amplitude of electronic wave packets created by photoionization, which gives access to the temporal dynamics of this process.

This presentation will introduce the physics of attosecond pulse generation and will describe applications in "ultrafast" atomic physics.