

# Stuttgarter Physikalisches Kolloquium

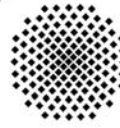
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Dienstag, 8. Mai 2007

17.15 Uhr

Hörsaal 2 D5

Stuttgarter Max-Planck-Institute, Heisenbergstraße 1, 70569 Stuttgart-Büsnau

## Femtosecond Optical and X-ray Measurements of Non-equilibrium Dynamics in Complex Solids

Prof. Andrea Cavalleri, Clarendon Laboratory, University of Oxford

### Abstract

In this talk, I will discuss our recent experimental work in the area of photo-control of complex solids. I will first cover some of the fundamental aspects of the photo-induced phase transition, a phenomenon in which excitation with light switches a strongly-correlated electron system between two competing phases (e.g. insulating and metallic). I will also discuss some recent developments in femtosecond technology, with particular emphasis on the opportunities afforded by femtosecond x-ray probes and on their application to the study of structural dynamics in solids.