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UNIVERSITÄT BERN

Seminar über Ultrafast Science and Technology

Referent: Dr. Johannes Haase, Paul Scherrer Institute PSI, Villigen Switzerland

Titel: Ultrafast and ultrasensitive coupling to molecular vibrations

The unification of ultrafast laser physics and chemistry opens new insights to the fundamentals of chemical reactions. The ultimate femto-chemistry probe is the X-ray free electron laser providing ultrashort pulses in the significant wavelength region for inter-atom investigations. Time resolved studies of ensemble reactions however rely on a synchronization and ultrafast initialization. Chemical processes that are triggered by heat are especially tricky since heat is defined as an equilibrium state that is not reached on ultrafast time scales. In my talk, I will present ultrafast heating mechanisms and coupling to molecular vibrations. These studies also require ultrasensitive detection of molecular monolayers that is reached by plasmonic field enhancement of nanoscopic antennas.

Zeit: Freitag, 04.08.2017, 10:15 Uhr

Ort: **Hörsaal B116**, Gebäude exakte Wissenschaften, Sidlerstrasse 5, Bern, Schweiz