

PhD position

Attosecond time-resolved studies of electron dynamics in solvated molecules

The Attosecond Science Group at CFEL (CFEL-ATTO) develops novel attosecond technologies to track and control electron dynamics in matter in real-time [1]. A PhD position is now open to investigate bio-chemically relevant molecules solvated in water within the joint international project UDIET (Ultrafast Dynamics in Intermolecular Energy Transfer) between Hamburg Unversität and Lund University.

In this project, you will design and construct an attosecond beamline operating at a high-repetition rate (200 kHz). A monochromatized HHG-based VUV source will be used to study ultrafast molecular dynamics occurring in water clusters with attosecond/few-femtosecond time resolution. Your work will contribute to achieve one of the challenges of attochemistry that is to study bio-relevant molecules embedded in a more realistic environment.

[1] E.P. Månsson *et al.*, "Real-time observation of a correlation-driven sub 3fs charge migration in ionised adenine" Communication Chemistry **4**, 1-7 (2021).





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