

Date: **March 17, 2017**
Time: **1:00 p.m.**
Place: **Lecture Hall** (access via entrance building)

A THz Driven Compact X-ray Source

Prof. Franz X. Kärtner

Center for Free-Electron Laser Science | Deutsches Elektronen-Synchrotron (DESY)
Department of Physics & The Hamburg Centre for Ultrafast Imaging (CUI) | University of Hamburg

ABSTRACT

An approach towards a THz driven compact attosecond X-ray source suitable for X-ray science outrunning electronic damage is introduced and progress towards implementation is discussed. The required multi-mJ THz radiation shall be generated using high-energy and high-power solid-state lasers.

BIOGRAPHY

Prof. Franz Kärtner heads the Ultrafast Optics and X-rays Group at the Center for Free-Electron Laser Science (CFEL) at “Deutsches Elektronen-Synchrotron” (DESY), Hamburg, and is Professor of Physics at University of Hamburg. His research interests are in classical and quantum noise in electronic and photonic systems, ultra-short pulse generation, precision timing distribution, optical waveform synthesis, high-energy THz generation and its applications to attosecond science and compact attosecond hard X-ray sources. He has authored or

co-authored more than 330 peer-reviewed journal publications, four book chapters and holds or has applied for 30 patents. He is a fellow of the Optical Society of America and the Institute of Electrical and Electronic Engineers, a member of the German National Merit Foundation and a Humboldt Feodor-Lynen Fellow and received in 2014 jointly with other researchers from University of Hamburg and DESY an ERC Synergy Grant to explore attosecond hard X-ray sources driven by high energy THz radiation.

We look forward to seeing you.

Prof. Dr. Dr. h. c. Roland Sauerbrey
HZDR Scientific Director