



Photonics Institute, Vienna University of Technology, Vienna, Austria

THE ULTRAFASST LASER GROUP OF PHOTONICS INSTITUTE AT VIENNA UNIVERSITY OF TECHNOLOGY  
INVITES APPLICATIONS FOR A

## Post-Doc Position in Ultrafast XUV/X-ray spectroscopy

The research pursued by the Ultrafast Laser Group of Photonics Institute, led by Andrius Baltuška, focuses on the generation and applications of ultrashort intense laser pulses in the near- and mid-infrared wavelength range.

The successful candidate will experimentally investigate laser-driven ultrafast dynamics in atoms and molecules on attosecond ( $10^{-18}$  seconds) to femtosecond ( $10^{-15}$  seconds) time-scales. The experiments involve the methods of attosecond electron streaking and transient absorption spectroscopy using XUV/X-ray pulses generated by the process of high harmonic generation with near- and mid-infrared laser pulses. The candidate will operate state-of-the-art few-cycle Titanium-Sapphire laser systems and cutting-edge mid-infrared laser sources developed by the group. An additional goal is to adapt the existing XUV/X-ray beam-line for experiments on solids and surfaces. For data analysis and interpretation, the candidate can rely on existing collaboration with theorists.

Further information about the institute and ongoing research projects can be found on the webpages of the institute <http://www.photonik.tuwien.ac.at/> and the research group <http://atto.photonik.tuwien.ac.at>.

### Requirements:

- PhD/Doctoral degree for research performed in ultrafast laser science and XUV/X-ray spectroscopy.
- Excellent knowledge of strong-field-driven dynamics in atoms and molecules as well as of high-harmonic generation. Experience in solid state and/or surface physics is an asset.
- Capability to independently operate state-of-the-art Titanium-Sapphire laser systems. Experience with ultrafast intense mid-infrared sources and optical parametric amplification is an asset.
- Outstanding experimental skills, enthusiasm, strong commitment.
- Good social skills and ability to work in a team in an international environment (spoken German not required).

### Offer:

- Employment in the scope of a research project with the Austrian Science Fund (FWF).
- **Contract duration of 2 years (with a possibility of extension by one year).**
- The salary, as fixed by FWF, is 3590 € per month before taxes (14 times a year).
- Full health and social insurance.
- The position is available by April 1<sup>st</sup>, 2016.

Applications consisting of a CV and a motivation letter with two reference contacts should be sent by email to

Dr. Ondřej Hort, [ondrej.hort@tuwien.ac.at](mailto:ondrej.hort@tuwien.ac.at)

Dr. Markus Kitzler, [markus.kitzler@tuwien.ac.at](mailto:markus.kitzler@tuwien.ac.at)