Call for 2016 DESY-ONACPR Fellowship Applicants

## **Research Laboratory: DESY (*Please reference to DESY-ONACPR-2016-19)***

### Division/Group: CFEL-FS2

### Supervising scientist: Franz X. Kärtner Email/Phone: [franz.kaertner@cfel.de](mailto:franz.kaertner@cfel.de)

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### Research Field: Ultrafast Optics and X-ray Sources

**Position:** Postdoctoral Research in Attosecond Science

Ultrafast electron transfer – a process important in photo- and electrochemistry and employed in solid-state solar cells, molecular electronics and single-electron devices – occurs on attosecond timescales. Time-domain attosecond streaking techniques suffer from strong perturbation of the surface by the strong streaking electric field as well as large background signals. The aim here is to develop novel parametric few-cycle pulse sources and to generate intense isolated attosecond XUV and UV pulses via high-harmonic generation for attosecond XUV-pump/UV-probe spectroscopy and to apply to selected catalytic processes.

**Research Area:**

**Specific Requirements:**

The postdoctoral candidate has a PhD in physics, chemistry or electrical engineering and experience in the generation/characterization of high-energy few-optical-cycle laser pulses (e.g., using hollow-core fiber compression or optical parametric amplification) and its use in high-harmonic generation and attosecond science. Experience in XUV beamline design and vacuum technology,

time-resolved XUV spectroscopy, and/or generation of isolated attosecond XUV pulses is helpful.

We are looking for a team-oriented and enthusiastic candidate, who can interact well with the other team members working on Attosecond Science both in gases and solids.

**Work Place:** Hamburg

**Earliest Start:** December 2016 or later is possible.

**Language Requirement:** excellent spoken and written English

**Further Remarks:**