Call for 2016 DESY-ONACPR Fellowship Applicants

## **Research Laboratory: DESY (*Please reference to DESY-ONACPR-2016-20)***

### Division/Group: CFEL-FS2

### Supervising scientist: Franz X. Kärtner Email/Phone: franz.kaertner@cfel.de +49 40 8998 6350

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

**Position:** Postdoctoral Research in High Energy and High Power Lasers

Various concepts for ultrafast X-ray sources are based on the use of high energy and high power picosecond pulses. They are used for pumping optical parametric chirped pulse amplifiers or as optical undulators in compact Free-Electron Laser sources. The aim is to develop a 1J, few picosecond to ns laser operating at 1kHz repetition rate, i.e. at 1kW of average power. Our approach is based on cryogenic Yb:YAG and Yb:YLF laser technology and applying them to various systems.

**Research Area:**

**Specific Requirements:**

The postdoctoral candidate has a PhD in physics, electrical or mechanical engineering and experience in the design and/or construction of solid-state lasers and amplifiers preferably producing high energy pulses and / or high average power. Experience with numerical methods for analyzing thermal, optical and mechanical performance of systems is expected. We are looking for a team-oriented and enthusiastic candidate who can interact well with the other team members in the laser development group as well as application groups.

**Work Place:** Hamburg

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

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

**Further Remarks:**