Call for 2016 DESY-ONACPR Fellowship Applicants

## **Research Laboratory: DESY (Please reference to DESY-ONACPR-2016-5)**

### Division/Group: FS-CFEL-1 (CMI)

### Supervising scientist: Prof. Dr. Jochen Küpper FRSC

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### Research Field: Physical Chemistry */ Molecular Physics*

**Position:** Postdoctoral Research in Experimental Physics

**Ultrafast electron dynamics in complex molecules:** If you want to see the chemistry, you have to follow the electrons.

Indeed, it is becoming evident that one has to study the combined electronic and nuclear dynamics of molecules in order to understand the elementary steps of chemical dynamics. Based on previous and current molecular-frame-photoelectron-angular-distribution-imaging experiments, performed in our group, we are preparing for experiments to image ultrafast dynamics in complex molecules, such as indole and the indole-water cluster. These experiments are targeted at the disentangling of ultrafast electronic dynamics coupled to femtosecond nuclear dynamics.

**Research Area:**

**Specific Requirements:**

The successful candidate will have an outstanding Ph.D. in experimental physics, physical chemistry, or a related field. Extensive experience with ultrashort-pulse lasers is required; experience with few-femtosecond laser pulses, ultra-high-vacuum equipment, or electron imaging is a bonus.

[Phys. Rev. Lett. 100, 133003 (2008)](http://dx.doi.org/10.1103/PhysRevLett.100.133003)

[Angew. Chem. Int. Ed. 48, 4900 (2009)](http://dx.doi.org/10.1002/anie.200902650)

[Phys. Rev. Lett. 102, 023001 (2009)](http://dx.doi.org/10.1103/PhysRevLett.102.023001)

[Nat. Phys. 6, 428 (2010)](http://dx.doi.org/10.1038/nphys1666)

[Phys. Rev. Lett. 114, 103003 (2015)](http://dx.doi.org/10.1103/PhysRevLett.114.103003)

**Work Place:** Hamburg

**Earliest Start:** December 2016

**Language Requirement:** fluent in spoken and written English

**Further Remarks:**