Call for 2016 DESY-ONACPR Fellowship Applicants

## **Research Laboratory: DESY (Please reference to DESY-ONACPR-2016-4)**

### Division/Group: PITZ

### Supervising scientist: Dr. Frank Stephan

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### Research Field: Accelerator Physics

**Position:** Postdoctoral position on the production of high brightness electron beams and the reliable, high duty cycle operation of RF photo injectors

As part of the accelerator R&D program of the Helmholtz Association the focus of the research program at PITZ currently is the:

* ultimate optimization of high brightness electron beams by generating (quasi) 3D ellipsoidal electron bunches, and
* reliable and stable generation of electron beams from high duty cycle RF photo injectors.

**The position**

* Work in one of the world-leading international groups of physicists and engineers for the development of photo injectors
* Development of innovative concepts and techniques for the diagnostics of high-quality laser and electron beams
* Perform numerical simulations to study and optimize subcomponents of the photo injector with respect to applications of high brightness electron beams for FELs
* Participate in the shift operation of PITZ for accelerator R&D

**Research Area:**

**Specific Requirements:**

* Excellent university degree in physics or engineering with a PhD degree
* Good knowledge of accelerator physics and accelerator technology
* Experience in beam dynamics simulations and numerical methods is required
* Experience in beam diagnostics and beam characterization is of advantage
* Knowledge of laser technology and incoherent optics is of advantage

**Work Place:** DES site Zeuthen

**Earliest Start:** as soon as possible

**Language Requirement:** Very good knowledge of English is required and knowledge of German is of advantage.

**Further Remarks:** complete application material includes: application letter, a detailed curriculum vitae in tabular form, grades list from the high school up to the current state of scientific education, name, position and contact data of 2-3 referees, list of publications, research interests