Call for 2015 DESY-ONACPR Fellowship Applicants

## **Code: DESY-2015-15**

## **Research Laboratory: DESY**

### Division/Group: FH/T

### Supervising scientist: Christophe GROJEAN Email/Phone: christophe.grojean@desy.de

### Research Field: High energy physics, theory and phenomenology, Higgs physics, physics beyond the standard model

**Position:** Postdoctoral Research in HEP theory and phenomenology

After the Higgs boson discovery, the Standard Model provides a consistent description of the fundamental constituents of matter and their interactions that can be extrapolated to very high energy. Nonetheless, some key questions are left unanswered: nature of dark matter, origin of the matter-antimatter asymmetry, origin of the weak scale etc. and new physics is expected to amend the standard model. The aim of this project is to study and compare the physics capabilities of possible future colliders like the International Linear Collider in Japan, the Future Circular Collider(s) at CERN, the Circular Electron-Positron Collider and the Circular Proton-Proton Collider in China. A special attention will be devoted to precision Higgs measurements and to the direct searches for new particles.

**Research Area:**

**Specific Requirements:**

The candidate should have expertise in collider physics, including some past experience with traditional Monte Carlo generator tools, and he should be familiar with popular models of new physics. Some knowledge of effective field theory techniques in addition will be a good asset.

**Work Place:** Hamburg

**Earliest Start:** December 2015

**Language Requirement:** (please note that we require for all candidates proven records of English, e.g. CAE certificate)

**Further Remarks:** None.