Call for 2015 DESY-ONACPR Fellowship Applicants

## **Code: DESY-2015-19**

## **Research Laboratory: DESY**

### Division/Group: FH/CMS

### Supervising scientist: Christian Schwanenberger Email/Phone: [christian.schwanenberger@desy.de](mailto:christian.schwanenberger@desy.de) / +49 40 8998 6002

### Research Field: Elementary Particle Physics at the LHC, Top Quarks and Higgs Bosons

**Position:** Postdoctoral Research in data analysis with the CMS experiment

The Large Hadron Collider at CERN is the highest energy collider ever built probing smaller distances and larger energies than ever accessible before. An open question in the Standard Model of particle physics is the origin of mass. To understand the process of mass generation, the interplay between the heaviest elementary particle, the top quark, and the recently discovered Higgs boson is crucial. This should be studied in this project investigating top quark pairs associated with Higgs bosons producing multilepton final states. The aim is to observe this process for the first time and to measure the top-Higgs Yukawa coupling.

**Research Area:**

**Specific Requirements:**

* solid skills in modern programming languages, preferably C++
* basic knowledge in root
* data analysis experience. The candidate should preferably have at least one publication as primary author or a preliminary result of an own data analysis in the field of high energy physics
* very good knowledge of English language in writing and speaking

**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:**