



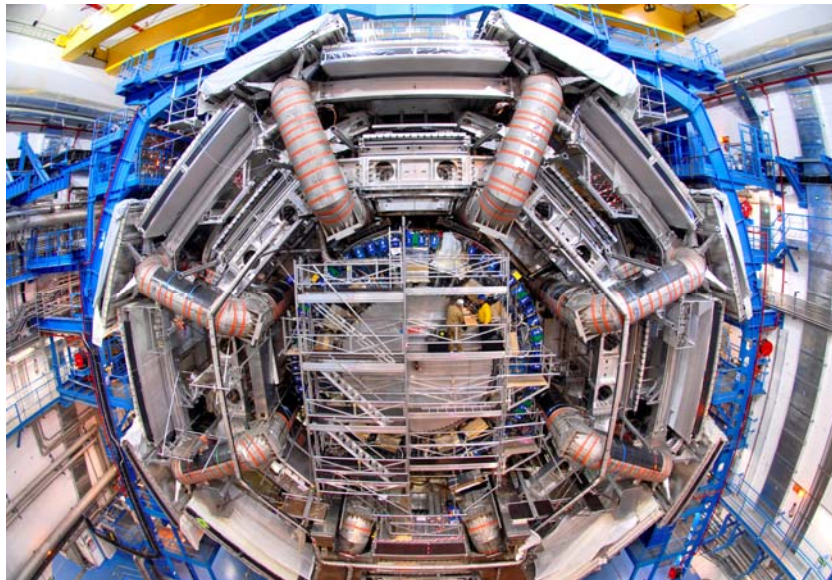
MAX-PLANCK-GESELLSCHAFT

**Max-Planck-Institut  
für Physik**

**TUM**  
TECHNISCHE  
UNIVERSITÄT  
MÜNCHEN

# Ph.D. Theses

## with the ATLAS Experiment



In summer 2008, the **Large Hadron Collider (LHC)** at the European Center for Particle Physics CERN will start operation. The accelerator will collide proton beams with a center-of-mass energy of 14 TeV, the highest achieved so far. The collision energy will be sufficient to produce the Higgs boson predicted by the Standard Model of particle physics but also supersymmetric and other new particles predicted by theories beyond the Standard Model.

The **ATLAS detector** is currently being installed and commissioned (see the picture). The **Max-Planck-Institut für Physik** in Munich contributes significantly to construction, commissioning and calibration of the detector as well as to the data analysis. In addition, development of new detector concepts for the highest LHC beam intensities (Super-LHC) has started.

Within the ATLAS experiment, the **Max-Planck-Institut für Physik** offers **Ph.D. positions** at the **Technical University of Munich** in the following fields of research:

- 1. Search for the Higgs boson at the Large Hadron Collider.**
- 2. Search for supersymmetric Particles at the Large Hadron Collider.**
- 3. Development of new pixel detectors for Super-LHC.**
- 4. Development of new fast and high-precision muon detectors with for Super-LHC.**

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