



I. Physikalisches
Institut



Institute for
Theoretical
Particle Physics
and Cosmology



III. Physikalisches
Institut A

RWTHAACHEN
UNIVERSITY

The DFG Research Training Group (RTG) 2497

The physics of the heaviest particles at the Large Hadron Collider

at RWTH Aachen University invites applications for

several doctoral positions

in Theoretical and Experimental Particle Physics.

The RTG is carried out jointly by the Institute for Theoretical Particle Physics and Cosmology and two experimental Institutes: Physics Institute III A and Physics Institute I B. The RTG is centered around LHC research. It builds on the particular strengths of the scientific groups at the RWTH Aachen University and the tradition of close collaboration between theory and experiment. The experimental groups are part of the CMS collaboration and have contributed substantially to the detector construction, its upgrades, computing and data analyses including deep learning methods. The theoretical group covers a broad range of topics from precision calculations in quantum chromodynamics to the phenomenology of supersymmetry and dark matter.

The RTG is designed to study the heaviest particles both known and theorized. The focus of the RTG is on

1. the Higgs boson, as a potential window to New Physics;
2. the top quark, as the heaviest of the quarks with likely relation to spontaneous symmetry breaking;
3. yet undiscovered heavy new particles from exotic models and dark matter candidates.

Successful applicants should hold an undergraduate degree equivalent to a Master's degree in physics in the German university system obtained with excellent grades. It should be awarded on the basis of a written thesis

following at least half a year of research. We offer 3-year doctoral research positions (75% TV-L E13). The earliest starting date is October 1st, 2019.

Candidates should submit an application through the following link:
<https://academicjobsonline.org/ajo/jobs/13813>

The application should contain a CV, a summary of the candidate's Master (or Diploma) thesis, copies of grade transcripts and degree certificates, as well as two reference letters. Furthermore, we ask for a statement of research interests matching the profile of the RTG. Candidates should specify PhD thesis topics, announced on the webpage of the RTG, or propose their own project. They should also state their preference for a supervisor (up to three choices in order of preference both for topics and supervisors).

Further information about the Research Training Group can be found here:
<http://www.rwth-aachen.de/rtg2497/>

The deadline for applications is July 12th, 2019. Applications received after the deadline will be considered until the posts are filled.

For specific information about the Ph.D. positions, please contact Prof. Michal Czakon (mczakon@physik.rwth-aachen.de)

We aim to increase the number of women in research and explicitly encourage and welcome women to apply. Equally qualified women applicants will receive preference in the application process. Qualified disabled candidates or applicants with equivalent status will receive preference in the application process.