Exploring the building blocks of the universe

Particle and astroparticle physicists have myriad opportunities for research and study in Munich. The research groups participating in the IMPRS EPP investigate the most exciting problems in modern physics in some of the world's top laboratories and institutes. Research topics include strong and weak interactions, quantum chromodynamics, symmetry breaking, supersymmetry, neutrino physics, string theory, astroparticle physics, dark matter, cosmic rays, and the physics and technology of particle detectors.

tory, the MAGIC gamma ray telescope, and other pioneering projects in Europe, USA, and Japan.

This is an ideal environment for next-generation physicists with theoretical or experimental interests. Young talented researchers have access to preeminent experimental laboratories and opportunities for dialog with some of the most venerable theorists of our day.

IMPRS EPP scientists play key roles in important experiments at CERN/LHC, DESY, the Gran Sasso underground labora-



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IMPRS

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IMPRS EPP Research with the best

The International Max Planck **Research School for Elementary Particle Physics**

Theoretical, Experimental and Cosmological Frontiers



doctorate



A world-class

The International Max Planck **Research School for Elementary** Particle Physics (IMPRS EPP) in Munich is a joint initiative of the Max Planck Institute for Physics and the particle and astroparticle research groups of the Ludwig Maximilian University and the Technical University Munich – two of Germany's top universities. The IMPRS EPP gives doctoral candidates the opportunities to study in outstanding research groups and to learn in an interdisciplinary education program.

Features of the IMPRS EPP:

- A broad range of research fields at the frontline of international research
- Close collaboration between doctoral candidates and research supervisors
- Seminars, workshops, and lectures by top researchers from around the globe
- Special emphasis on international scientific cooperation
- Continued involvement after graduation

Admission requirements

Outstanding physicists including Max Planck, Albert Einstein, Werner Heisenberg, and Max von Laue have walked the halls of the Max Planck Institute for Physics. Young scientists wanting to follow in their footsteps should have excellent qualifications to be considered by the admissions board of the IMPRS: Candidates from around the

world are welcome to apply.

Half of the accepted doctoral

candidates are from universities

outside Germany. English is the

working language in the school.

There are four application

sion deadlines at the end of

each guarter. Applications

must be submitted online at

www.imprs-epp.de. There, you

will find further information on

prerequisites for acceptance,

tion process.

the IMPRS EPP, and the applica-

periods per year, with submis-

• A master's degree in physics with outstanding marks

- A master-level thesis documenting at least six months of independent research
- Good command of the English language
- Two letters of recommendation





Working towards the future with an optimal curriculum

The International Max Planck Research School for Elementary Particle Physics provides its doctoral candidates with optimal conditions for their research activities. This includes:

- Intensive support by experienced physicists, with 35 supervising tutors for 60 doctoral candidates
- Monitoring and support of research activities by an advisory panel staffed by wellversed scientific experts

 Regular presentations of each candidate's own research work in interdisciplinary colloquia

- Lectures and block courses by leading researchers on current topics in particle and astroparticle physics
- Access to the complete lecture program of the Munich universities
- German courses, workshops on self-management, time management, and other soft skills
- · Workshops in conference centers such as Castle Ringberg on Lake Tegernsee, as well as social events

Excellent career prospects

The IMPRS EPP program provides graduates with a perfect basis for a career in research or industry. It imparts skills that are integral to success. The curriculum is focused strongly on analytic capabilities with an emphasis on teamwork and international cooperation. While conducting their research, doctoral candidates develop a broad range of technical expertise and know-how for theoretical analysis, as well as a high level of proficiency with information technology.



All graduates are members of the Max Planck Alumni Network,

which provides contacts to

tions, and industry centers

throughout the world

excellent researchers, institu-



Maryland, USA



interesting to meet theorists and experimentalists from other institutions, especially I enjoyed the Friday seminars where other PhD works were presented."

(Spain) Zurich, Switzerland

A fantastic experience with lifelong benefits

The IMPRS EPP's world class education is an ideal springboard for any researcher looking to take on challenging tasks in his or her career. Doctoral candidates and graduates highlight how much their time in the IMPRS EPP meant to them:



The IMPRS provides an optimal environment to start a career in physics

l especially appreciated the lively interactions with many other students working on different topics, which gave me an outstanding view of the field, as well as the possibility of having block courses on demand to obtain more specific answers needed for my own research."

Dr. Steve Blanchet (Switzerland) Winner of the Universe Cluster Award for an exceptional doctoral thesis in the field of theoretical astroparticle physics. Now a postdoc at the University of



"I did my PhD at the TUM and participated in the IMPRS program as an external student. It was very

Dr. Teresa Marrodan Undagoitia

Experimental Astroparticle Physics Now a postdoc at the University of



'Munich is one of the great centers for string theory research. The IMPRS EPP offered me the

unique opportunity to interact with world-class experts while at the same time allowing me to broaden my horizon with topical lectures and other activities."

Dr. Nikolas Akerblom (Sweden) String Theory Now a postdoc at NIKHEF, Amsterdam, NL



"The International Max Planck School of Research is truly international. As a result of the

IMPRS program I have met doctoral students from Germany, Italy, Spain, China, Russia, Georgia, the Ukraine, and the USA. IMPRS thus provides a chance to form friendships with scientists from all over the world. These contacts will surely be invaluable in a career in High Energy Physics, and the chance to participate daily in cultural exchange is highly unique."

Andrea Bangert (USA) **Experimental Particle Physics**