

# Preface

Research at the Physik-Institut covers both experimental and theoretical physics. Experimental activities include the physics of biological systems, nanometer structures and surface physics, fundamental properties of materials and high-temperature superconductivity as well as accelerator and non-accelerator based elementary-particle and astroparticle physics. Theoretical research concentrates on precision calculations of processes in quantum chromodynamics and on fundamental aspects of high-energy physics.

In addition as many as seven research groups from other departments of our university are affiliated with the Physik-Institut, working in areas such as soft condensed matter at the nanoscale, computational science, medical physics, bio-imaging, astrophysics and cosmology and biophysics (see: [www.physik.uzh.ch/research.shtml](http://www.physik.uzh.ch/research.shtml)).

The physics department employs about 150 scientific, technical and administrative staff, originating from 28 countries. One quarter of them are female and 80% of the research group members are paid from third-party funds, mainly profiting from research programs of the Swiss National Science Foundation (SNF) and the European Union. The fifteen research groups are led by nine full professors, three independent group leaders and three SNF professors, where the latter receive in addition starting or consolidator grants from the European Research Council.

By covering many fields of modern research we remain an attractive place with lively intellectual interactions. To still reach a critical mass in the various activities we, however, try to have more than one group active in each field, balancing international visibility and diversity. As a result we receive many excellent international applications for PostDoc and PhD student positions.

The Schroedinger colloquium ([www.physik.uzh.ch/schroedinger](http://www.physik.uzh.ch/schroedinger)), introduced towards the end of 2014, is now well established. The monthly lectures, given by some of the world's leading scientists, are intended for a broad audience from our science faculty.

Over 1100 students are taught physics at any point in time. Students of the medical and vet-suisse faculty and of our science faculty in biology, chemistry, geography, biomedicine and mathematics learn the basic physics principles. In good European tradition we follow the concept of unification of research and education. All our physicists are involved in teaching, including all PostDocs and PhD students who are paid by third-party funds which results in significant subsidizing of the teaching duties of the University. In addition typically fifteen undergraduate physics students and some outside senior physicists support our teaching.

Our scientific success is based to a large extent on the highly qualified and strongly motivated technical experts from our mechanical- and electronics workshops, and information technology. They construct the state-of-the-art laboratory equipment required for new experimental methods, pushing back existing technical limitations. Our success also strongly benefits from our reliable, efficient and very friendly administrative staff.

Kurt Bösigler, former leader of the mechanical workshop, retired in autumn 2015 after more than forty years at our institute. We thank him for his many invaluable contributions, which include the mandatory mechanical machining course for physics bachelor students. Kurt always convincingly argued for the importance of keeping the tools up to date so he could hand over the workshop to his successor Reto Maier, excellently equipped and perfectly organized.

An enormous amount of work goes into the preparations for this years International Physics Olympiad taking place at our institute for a full week in July 2016. Coordinated by Andrea Schneider, preparations for hosting about thousand visitors from 82 countries have started. Many of us are involved in planning of exam questions, lab experiments, entertainment programs, ceremonies, and solving financial bottlenecks.

The professors of the department take part in many scientific organizations, including the national research council, research committees of the Paul Scherrer Institut and advisory boards and panels of numerous international research institutions. They also contribute to the academic self administration of the university and are members of many national and international search committees for new professors.

Members of the institute actively contributed to information events for future students, gave presentations at schools and guided highschool students through our labs. The department regularly participates in the European Masterclass for Particle Physics.

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Prof. Dr. Ueli Straumann