

PhD Program in Physics

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Department of Physics and Geology

General description

The new PhD course in Physics of the University of Perugia has been active since the XXXVI cycle. It joins the previous PhD course in "Sciences and Technologies for Physics and Geology" born in 2014 from the merging of the Physics and Geology areas of the Department of Physics and Geology.

The three-year course aims to provide high-level education and research skills in Physics as required by both the academic world and the job market.

Thanks to the internationalization of the PhD school and the outstanding research activities carried out in both theoretical and experimental Physics in our Department, the course may provide a double PhD degree through international agreements with several organizations among the most prestigious universities and research institutes in the world.

Research fields

The student activities are coordinated by a supervisor, which is assigned according to the research field chosen by the student for his/her thesis among those active in the Department: Applied Physics, Astrophysics and Astroparticle Physics, Biophysics, Gravitational Waves and Multimessenger Astronomy, Medical Physics, Nuclear and Subnuclear Physics, Particle Physics, Solid State Physics and Theoretical Physics.

The supervisor is responsible for guiding the student through the training courses and her/his research project by integrating the student activity in the local group, as well as by ensuring her/him wide visibility in the international context.

Educational and Training Activities

During the first year of the course, the students are required to consolidate their knowledge by attending advanced courses and training activities selected by the student according to the needs of the research area of her/his interest.

A minimum number of credits (CFU/ECTS) has to be collected to access the second year. To customize her/his training course each student has several tools at own disposal.

Postdoctoral job opportunities

The main professional opportunities for a PhD in physics are the scientific activities in national and international research institutions: universities, laboratories, large scale facilities and centers of excellence.

Our graduates easily find positions in the institutions they collaborated with and they visited during the PhD, thanks to the consolidated credits that the members of the Department of Physics and Geology have in the international research circuits.

The doctoral program gives students the opportunity to spend periods of the research stay, within the framework of the main European and non-European mobility programs, in the most important and prestigious large scale facilities and research centers (CERN, ASI, VIRGO / EGO and ILL, to name the major ones), and in many universities all over the world.

Furthermore, basic research carried out in collaboration with other research institutions (CNR and INFN), such as those related to space exploration, energy physics and functional characterization of materials, has often led to important business activities, stimulating and favoring the creation of innovative companies.

Last but not least, teaching and dissemination of scientific results towards society offer further job opportunities being fundamental feedback in our society.