



UNIVERSITÀ DEGLI STUDI DI TRIESTE

Area dei Servizi Istituzionali
Unità di staff Dottorati di ricerca

ATTACHMENT 6

LAST REVISED 05/05/2021

PhD IN PHYSICS OVERVIEW

IN BRIEF													
Lines of research	<ol style="list-style-type: none">1 Nuclear and subnuclear physics2 Astrophysics3 Condensed matter physics4 Theoretical physics5 Medical physics and biophysics												
Administrative location	University of Trieste												
Organizing Department	Department of Physics												
Duration	3 years												
Attendance abroad that entitles to a scholarship increase - min. max. of months for each PhD student (over 3 years)	0 - 18												
Official language	English Lectures, Seminars and Exams will be entirely in English												
Subject Area	02 PHYSICS												
Macro Research Fields (in alphabetical code order)	<table border="0"><tr><td>02/A</td><td>PHYSICS OF FUNDAMENTAL INTERACTIONS</td></tr><tr><td>02/B</td><td>PHYSICS OF MATTER</td></tr><tr><td>02/C</td><td>ASTRONOMY, ASTROPHYSICS, EARTH AND PLANETARY PHYSICS</td></tr><tr><td>02/D</td><td>APPLIED PHYSICS, DIDACTICS AND HISTORY OF PHYSICS</td></tr></table>	02/A	PHYSICS OF FUNDAMENTAL INTERACTIONS	02/B	PHYSICS OF MATTER	02/C	ASTRONOMY, ASTROPHYSICS, EARTH AND PLANETARY PHYSICS	02/D	APPLIED PHYSICS, DIDACTICS AND HISTORY OF PHYSICS				
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Scientific Disciplinary Sectors (in alphabetical code order)	<table border="0"><tr><td>FIS/01</td><td>EXPERIMENTAL PHYSICS</td></tr><tr><td>FIS/02</td><td>THEORETICAL PHYSICS, MATHEMATICAL MODELS AND METHODS</td></tr><tr><td>FIS/03</td><td>PHYSICS OF MATTER</td></tr><tr><td>FIS/04</td><td>NUCLEAR AND SUBNUCLEAR PHYSICS</td></tr><tr><td>FIS/05</td><td>ASTRONOMY AND ASTROPHYSICS</td></tr><tr><td>FIS/07</td><td>APPLIED PHYSICS (CULTURAL HERITAGE APPLICATIONS, MEDICAL PHYSICS AND BIOPHYSICS, ENVIRONMENTAL PHYSICS)</td></tr></table>	FIS/01	EXPERIMENTAL PHYSICS	FIS/02	THEORETICAL PHYSICS, MATHEMATICAL MODELS AND METHODS	FIS/03	PHYSICS OF MATTER	FIS/04	NUCLEAR AND SUBNUCLEAR PHYSICS	FIS/05	ASTRONOMY AND ASTROPHYSICS	FIS/07	APPLIED PHYSICS (CULTURAL HERITAGE APPLICATIONS, MEDICAL PHYSICS AND BIOPHYSICS, ENVIRONMENTAL PHYSICS)
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Domain European Research Council	PE PHYSICAL SCIENCES AND ENGINEERING												
ERC Panels	<table border="0"><tr><td>PE2</td><td>FUNDAMENTAL CONSTITUENTS OF MATTER: PARTICLE, NUCLEAR, PLASMA, ATOMIC, MOLECULAR, GAS, AND OPTICAL PHYSICS</td></tr><tr><td>PE3</td><td>CONDENSED MATTER PHYSICS: STRUCTURE, ELECTRONIC PROPERTIES, FLUIDS, NANOSCIENCES, BIOLOGICAL PHYSICS</td></tr></table>	PE2	FUNDAMENTAL CONSTITUENTS OF MATTER: PARTICLE, NUCLEAR, PLASMA, ATOMIC, MOLECULAR, GAS, AND OPTICAL PHYSICS	PE3	CONDENSED MATTER PHYSICS: STRUCTURE, ELECTRONIC PROPERTIES, FLUIDS, NANOSCIENCES, BIOLOGICAL PHYSICS								
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PE9 UNIVERSE SCIENCES: ASTRO-PHYSICS/-CHEMISTRY/-BIOLOGY;
SOLAR SYSTEM; PLANETARY SYSTEMS; STELLAR, GALACTIC AND
EXTRAGALACTIC ASTRONOMY; COSMOLOGY; SPACE SCIENCES;
ASTRONOMICAL INSTRUMENTATION AND DATA

WHO'S WHO

Chair	Prof. Francesco Longo - Department of Physics – University of Trieste - phone +39 040.558.3381 - +39 040.375.6222; email francesco.longo@ts.infn.it
Vice	Prof. Roberto Valandro - Department of Physics – Str. Costiera – University of Trieste - tel. +39 040 2240364, email Roberto.Valandro@ts.infn.it
PhD Academic Board	List of members
Web site	http://web.units.it/dottorato/fisica/en
Email	dottorato.fisica@units.it
Course description and objectives	<p>Graduates will possess an advanced and deep knowledge of their own research area of specialization. They will be highly skilled in using advanced scientific experimental/observational/computational/theoretical methods and/or tools appropriate to their area of specialization.</p> <p>The most important outcome of their PhD will be the ability to perform independent and innovative research, developing a critical thinking, the capability of working in an advanced and international research environment. They will be able to carry out an original scientific work at the leading edge of their field, producing a high quality written dissertation.</p> <p>Graduates will be able to summarize the main issues in their field and communicate the results of scientific research at a professional level as well as to other students.</p> <p>The research fields of activity of the Graduate Course are: Nuclear and subnuclear physics, Astrophysics, Condensed matter physics, Theoretical physics, Medical physics and biophysics.</p>
Job placement opportunities	<p>Research activities in national and foreign universities, research centers and industry. Teaching in universities and secondary schools. Jobs which require high scientific expertise, both in the public and private sector.</p> <p>Employment data for our PhD show a very positive trend: for several years the students have been monitored for few years after the PhD diploma. Obtaining good post-doc positions at Italian or foreign Institutions, Universities or Laboratories is considered an indirect, but effective quality indicator of the PhD School. The PhD students employment areas include Italian universities, Foreign universities, Italian or foreign research institutes, High School teachers, Financial analysts, Programmers, Statistics experts in insurance companies, etc.</p>
Main cooperating international Universities and Research Institutions	<ol style="list-style-type: none"> 1 Centre Europeen de Recherche Nucleaire (CERN) - Geneva, Switzerland 2 ESO GARCHING, Germany 3 École Polytechnique Fédérale de Lausanne, Switzerland 4 KEK, the High Energy Accelerator Research Organization - Japan 5 Institute for Advanced Studies – Princeton, USA