



PhD Programme in “Physics”

The PhD programme in Physics offers 29 positions (of which 22 fully funded) for the 36th PhD cycle at Politecnico di Milano. All scholarships cover three years of study and research.

The PhD Course is characterized by a strong experimental character. It aims at providing high scientific education and training to develop general research abilities in all areas of applied physics, as increasingly needed by advanced technological companies. The education contents are strictly related to the research activities carried out in the advanced experimental laboratories at the Department of Physics. All research activities are performed in collaboration with high level international institutions. Besides experimental basic research, consistent effort is devoted to the design and development of innovative instrumentation.

The PhD programme aims at the development of an experimental approach in problem solving techniques and at the attainment of a high level of professional qualification, opening job opportunities such as

- ✓ researcher in companies, universities, research centres
- ✓ designer of advanced devices and systems relying on physics technologies in high-tech industries and small innovative companies
- ✓ system manager to solve methodological and technological problems in large companies.

The enclosed tables summarize the scholarships issued in the present call.

Please notice that, in order to be eligible for any of the scholarships, you must (in the registration process) declare that you intend to compete for a scholarship (see also sections 6.4 and 7.6 of the [Quickstart](#) manual).

For further information about the Topic scholarships please visit the [Topic Scholarships webpage](#)

For further information about the Interdisciplinary scholarships please visit the [Interdisciplinary Scholarships webpage](#)



#	Type	Research topic	Granting Institution
1	Generic	"Physics"	Italian Ministry of University and Research Politecnico di Milano
2	Generic	"Physics"	Italian Ministry of University and Research Politecnico di Milano
3	Generic	"Physics"	Italian Ministry of University and Research Politecnico di Milano
4	Generic	"Physics"	Italian Ministry of University and Research Politecnico di Milano
5	Generic	"Physics"	Italian Ministry of University and Research Politecnico di Milano
6	Generic	"Physics"	Italian Ministry of University and Research Politecnico di Milano
7	Topic	<i>Graphene Nanoelectronics</i>	H2020 European Project "Graphene Core 3"
8	Topic	<i>Ultrafast optical spectroscopy of two-dimensional semiconductors</i>	H2020 European Project "Graphene Core 3"
9	Topic	<i>Coherent Raman Microscopy</i>	Regione Lombardia: POR FESR 2014-2020 "NEWMED"
10	Topic	<i>Ultrafast dynamics in solids studied with attosecond spectroscopy</i>	ERC Starting Grant "AuDACE"
11	Topic	<i>Integrated Photonic Quantum Processor</i>	CNR – Consiglio Nazionale delle Ricerche
12	Topic	<i>Ultrafast processes in bio-relevant molecules driven by extreme-ultraviolet radiation</i>	CNR – Consiglio Nazionale delle Ricerche
13	Topic	<i>Theoretical Nanoenergy</i>	IIT – Italian Institute of Technology
14	Topic	<i>Light actuators for cell stimulation</i>	IIT – Italian Institute of Technology
15	Topic	<i>Materials and devices for Bio Photonics</i>	IIT – Italian Institute of Technology
16	Topic	<i>Bio-organic electronics</i>	IIT – Italian Institute of Technology
17	Topic	<i>Light-matter interaction of nanostructured surfaces</i>	IIT – Italian Institute of Technology
18	Topic	<i>Optical nano-imaging through mechanical detection of light</i>	IIT – Italian Institute of Technology
19	Topic	<i>Flat optical devices for light manipulation</i>	IIT – Italian Institute of Technology
20	Topic	<i>Advanced Optofluidic Lab-on-a-Chip</i>	IIT – Italian Institute of Technology
21	Topic	<i>Edible Electronics</i>	IIT – Italian Institute of Technology
22	Interdisciplinary	<i>Industry 4.0: Optical phenomena in nanostructured materials for energy harvesting (in collaboration with PhD program in "Energy and Nuclear Science and Technology")</i>	Politecnico di Milano



A further scholarship will be included in the grant in late May. Participating candidates will be invited to option this scholarship through the online procedure by mid-June.

#	Type	Research topic	Granting Institution
1	Topic	<i>Spin-resolved electron spectroscopy of low-dimensional systems</i>	H2020 European Project "Graphene Core 3"