



**UNIVERSITÀ
DEGLI STUDI DI TRIESTE**

Rettorato e Direzione Generale
Sezione Ricerca e Dottorati
Ripartizione Dottorati

LAST REVISED 27/07/2012

**DOCTORAL SCHOOL
IN PHYSICS**

Announcement reserved to non-EU citizens, graduated and resident outside the EU and not temporarily present in a EU country at the time of the selection (August 31st – October 31st)

Please refer to the Admission Announcement for details.
(<http://www2.units.it/dott/en/?file=DottBandi.inc&cod=2012>)
This is the Attachment (3b) for the School in Physics

SUMMARY

AWARD OF 5 SCHOLARSHIPS

Duration: 3 years. Estimated start: January 2013.

- [cod M/1] **RESEARCH** in: one of the Research Fields of the School:
 - Astrophysics
 - Medical Physics
 - Subnuclear and Nuclear Physics
 - Theoretical Physics
 - Condensed Matter Physics
- [cod D/7] **RESEARCH** on: Theoretical and experimental physics subjects of INFN interest
- [cod D/8] **RESEARCH** on: Experiments with Synchrotron radiation
- [cod D/9] **RESEARCH** on: development of novel free electron laser radiation sources
- [cod D/10] **RESEARCH** on: research topics in Astrophysics relevant for the research lines at INAF – Astronomical Observatory of Trieste

DEADLINES

1. ACADEMIC QUALIFICATIONS: - see art. 1.1 and art. 3.3 of the Admission Announcement	DEADLINE FOR COMPLETION OF DEGREE: August 31st 2012
2. APPLICATION: - see art 3.2 and art. 3.2.1 of the Admission Announcement (paper application permitted only to foreign candidates who find it difficult to register on-line in Italian because of language problems; ordinary procedure is the online application by 11:30 am.) - send Paper application form (http://www2.units.it/dott/files/Paper%20application%20form.pdf) to helpdottorati@amm.units.it	August 31st 2012 by 24.00 CET
3. PAYMENT: - see at art 3.2 Admission Announcement	September 7th 2012 by 24.00 CET

Legge 241/1990 - Responsabile del procedimento: Elena Ferraro

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4. REQUIRED QUALIFICATIONS: - see the "Required Qualifications" section of this document - send all required documentation by pdf files max 10Mb to: scuoladifisica@units.it	September 17th 2012 by 24.00 CET
5. ADMISSION TO INTERVIEW: - see the "Admission to Interview" section of this document	September 20th 2012
6. INTERVIEW (VIDEOCONFERENCING): -- see the "Interview" section of this document	September 26th 2012 at 9.00 AM CET
7. MERIT LIST: - see at http://www2.units.it/dott/en/ "Admission procedure" >> "Admission announcement and relative attachments (...)" >> ATTACHMENT 3b - Physics >> "Eligible Candidates – Merit List"	
Contacts for numbers 1, 2, 3, 7 helpdottorati@amm.units.it	
Contacts for numbers 4, 5, 6, 7 scuoladifisica@units.it	

GENERAL DESCRIPTION

RESEARCH FIELDS:

1. Astrophysics
2. Medical Physics
3. Subnuclear and Nuclear Physics
4. Theoretical Physics
5. Condensed Matter Physics

Location: Trieste

ORGANIZING DEPARTMENT: Department of Physics

OTHER PARTICIPATING INSTITUTIONS (Italian):

- INAF - Istituto Nazionale di Astrofisica
- Istituto Nazionale di Fisica Nucleare
- ICTP- the Abdus Salam International Centre for Theoretical Physics
- Sincrotrone Trieste S.C.p.A.
- Laboratorio Nazionale TASC – IOM CNR
- ARPA FVG

MAXIMUM NUMBER OF MONTHS TO BE SPENT ABROAD: 18

OFFICIAL LANGUAGE OF THE SCHOOL: English

ADMISSION INFORMATION

NUMBER OF PLACES AVAILABLE5

CODE	FUNDING BODY/IES	TOPICS
[cod M/1]	Università degli Studi di Trieste	RESEARCH in: one of the Research Fields of the School
[cod D/7]	Dept. Physics funded by INFN	RESEARCH on: Theoretical and experimental physics subjects of INFN interest

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[cod D/8]	Dept. Physics funded by Sincrotrone Trieste	RESEARCH on: Experiments with Synchrotron radiation
[cod D/9]	Dept. Physics funded by Sincrotrone Trieste	RESEARCH on: development of novel free electron laser radiation sources
[cod D/10]	Dept. Physics funded by Istituto Nazionale di Astrofisica - INAF	RESEARCH on: research topics in Astrophysics relevant for the research lines at INAF – Astronomical Observatory of Trieste

Candidates who accept an earmarked scholarship are committed to the pre-assigned topic

Candidates have to list the scholarships they apply for by specifying the corresponding codes in the "Qualifications list" form (<http://www2.units.it/dott/files/Qualifications%20list.pdf>)

ACADEMIC QUALIFICATION REQUIRED see Admission Announcement art. 1.1 and 3.3

DEADLINE FOR COMPLETION OF DEGREE: **31.08.2012**

ADMISSION REQUIREMENTS: qualifications + oral interview in videoconferencing

- MAXIMUM NUMBER OF POINTS AWARDED FOR QUALIFICATIONS/PUBLICATIONS:20/20
- MINIMUM SCORE REQUIRED FOR QUALIFICATIONS/PUBLICATIONS:10/20
- ORAL INTERVIEW MARK OUT OF:50/50
- MINIMUM SCORE REQUIRED FOR INTERVIEW:.....35/50
- MAX FINAL SCORE (i.e. the marks obtained in the interview plus the points given for qualifications)70/70
- MINIMUM FINAL SCORE REQUIRED:.....45/70

REQUIRED QUALIFICATIONS

1.
 - certificate of the academic qualification;
 - curriculum vitae et studiorum;
 - if available, a Graduate Record Examination (GRE) Subject Test in physics (or chemistry or mathematics)
 Up to:6/20
2.
 - a degree transcript listing the examinations taken by the candidate, with marks and a short description of their content; up to:.....4/20
3.
 - a brief summary of the master thesis, if applicable; up to:.....4/20
4.
 - two letters of recommendation
(http://physics.units.it/Ricerca/documenti/LetterRecommendation_TEMPLATE.doc)
by professors or experts in the relevant field of research (to be emailed directly by the appraisers to Scuoladifisica@units.it - re: Letter for surname – name);
 - a statement of purpose
 Up to:3/20
- 5.

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publications; up to:.....3/20

6.

- "Qualification list" - <http://www2.units.it/dott/files/Qualifications%20list.pdf> -
(unless this form is submitted, qualifications and publications **CANNOT** be assessed by the Examining Board)

Send required documentation via mail in pdf format compressed max 10Mb to:
Scuoladifisica@units.it

ADMISSION TO INTERVIEW

Check your admission on **20.09.2012** at: <http://www2.units.it/dott/en/> "Admission procedure" >>
"Admission announcement and relative attachments (...)" >> ATTACHMENT 3b - Physics >>
"Eligible Candidates – Merit List"

INTERVIEW (VIDEOCONFERENCING)

INTERVIEW (videoconferencing): 26.09.2012 starting at 9:00 am CET. The interview may be arranged at any other time if agreed otherwise. Requests must be emailed before 24.09.2012 to Scuoladifisica@units.it. The interview must be made before 6:00 pm CET **26.09.2012**

INTERVIEW LANGUAGE: English
CEFR Required level: B2

CONTACT INFORMATION

- Dipartimento di Fisica Università degli Studi di Trieste, via Valerio, 2 - 34127 Trieste – Italy
Phone +39.040.558.3371 Fax +39.040.558.3350
- Scuoladifisica@units.it
- <http://www.fisica.units.it/Ricerca/dottfisica.php>

GENERAL INFORMATION

DIRECTOR OF THE SCHOOL: Prof. Paolo Camerini - Dipartimento di Fisica - Università degli Studi di Trieste - tel.040/558.3379; fax 040/558.3350 email camerini@trieste.infn.it

VICE-DIRECTOR: Prof. Gaetano Senatore - Dipartimento di Fisica - Università degli Studi di Trieste - tel. 040/2240278 fax 040/224601 email gaetano.senatore@ts.infn.it

WEB SITE: <http://physics.units.it/Ricerca/dottfisica.php>

SCIENTIFIC PROJECT: The PhD school in Physics of Trieste is integrated in a research and higher education system which is probably unique in Italy. The physics research activities spectrum at the Trieste University is very broad.

Besides a relevant theoretical and computational research activity, there is a wide community of experimental physicists belonging both to the university and to public and private research bodies who are actively engaged in fields ranging from fundamental nuclear and subnuclear physics to the physics of electronic devices and new materials, from the development of new machines (see e.g. the free electron laser source Fermi at Elettra) to medical physics, from nanotechnology to astroparticle physics and astronomy (both theoretical and experimental).

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The synergy between the experimental activities and the theoretical and computational ones at the University, as well as with those in the laboratories present in town and at the Area di Ricerca (Area Science Park) and the ongoing collaboration with SISSA (International School for Advanced Studies) and the International Center for Theoretical Physics (ICTP) offer the students of the PhD School of Physics of Trieste a very rich and stimulating environment which is full of opportunities and with a range of possible research activities to join which is rare to find elsewhere.

An incomplete list can mention the local Synchrotron (Elettra), the free electron laser source (Fermi), the Trieste laboratories of the National Nuclear Physics Institute, the local section of the National Astrophysics Institute and the Observatory, the research and development lab "Istituto Officina dei Materiali" (CNR). In addition one has to consider the access to national and international laboratories where our research groups work, often with coordination responsibilities. Among these there is CERN (Geneva, CH) laboratory, the European Southern Observatory (ESO, Chile), the Fermilab laboratory (Illinois, USA).

EDUCATIONAL AIMS AND RESEARCH TOPICS: Graduate students in physics are actively engaged in research at the forefront of both fundamental and applied physics. The students can choose to work in Astrophysics, Condensed Matter Physics, Medical Physics, Sub-nuclear and Nuclear Physics, Theoretical physics. The goal of the Graduate School is to train flexible professionals who will easily find a job in different fields, including, and primarily, scientific research. Besides being individually trained in a specific research field, the students attend institutional curricular courses as well as courses focused on the topic of their doctoral theses for a total of at least 80 hours of lessons. They will also attend at least two national or international schools. Graduate students are encouraged as well to attend national and international conferences in order to present the results of their research. A list of available research topics is found at: <http://physics.units.it/Ricerca/ArgomentiDottorato.htm> . Some of the scholarships carry a title. The awardees of such scholarships are bound to perform research in a pre-assigned area/topic. Info on research topics and people to contact for further details can be found in <http://physics.units.it/Ricerca/dottfisica.php> .

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