



UNIVERSITÀ
DEGLI STUDI DI TRIESTE

Rettorato e Direzione Generale
Sezione Ricerca e Dottorati
Ripartizione Dottorati

LAST REVISED 26 settembre 2013

**DOCTORAL PROGRAMME IN
PHYSICS**

NOTE: candidates applying for reserved places, as indicated in ALLEGATO 4R – Physics, cannot apply for this contest.

This attachment provides only partial information. Exhaustive information, including how to register for the selection, is published in the Admission Announcement posted in the web page <http://www2.units.it/dottorati/> >> Admission Announcement.

Deadline for online application	16th September 2013 h.11:30 a.m. CET
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GENERAL DESCRIPTION

SUBJECT AREA:

- main area: 02

MACRO RESEARCH FIELDS:

- main area: 02/A

- other areas: 02/B; 02/C

SCIENTIFIC DISCIPLINARY SECTOR:

- main area: FIS/03

- other areas: FIS/02; FIS/04; FIS/05; FIS/07

DOMAIN EUROPEAN RESEARCH COUNCIL:

- PE

ERC PANELS:

- main area: PE2

- other areas: PE3; PE9

Information on the codes can be found online at the address: <http://www.units.it> >> Research >> Doctorates >> Admission >> Admission Announcement and relative attachments - Board of Examiners - Eligible Candidates/Merit list>> Research codes

RESEARCH FIELDS:

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

LOCATION: Trieste

- ORGANIZING DEPARTMENT: Dipartimento di Fisica

NON-ACCREDITED PARTICIPATING INSTITUTIONS:

- Istituto Nazionale di Astrofisica - Osservatorio Astronomico di Trieste

- Istituto Nazionale di Fisica Nucleare - Sezione di Trieste

Legge 241/1990 - Responsabile del procedimento: Elena Ferraro

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- Elettra-Sincrotrone Trieste S.C.p.A. di interesse nazionale

DURATION: 3 years

MAXIMUM NUMBER OF MONTHS TO BE SPENT ABROAD IN THREE YEARS: 18

OFFICIAL LANGUAGE: english

ADMISSION INFORMATION

NUMBER OF PLACES AVAILABLE (INCLUDING PLACES OF CONTEST 4R):..... 14

- PLACES WITHOUT SCHOLARSHIP WITH EARMARKED PROJECT 1

- [cod P/0] Place without scholarship earmarked to Project “*Research topics relevant for INAF-OATS*” (look at <http://www.oats.inaf.it/en/doctoral-research-phd> [www.oats.inaf.it])” 1

SCHOLARSHIPS AVAILABLE WITH INDICATION OF FUNDING BODY: (*):

- [cod FSE/1] Università degli Studi di Trieste funded by the Region Friuli Venezia Giulia, with resources provided by the European Social Fund, Operational Programme 2007/13, Axis 5 Transnational and Interregional Cooperation.....1
- [cod M/2-5] Università degli Studi di Trieste4
- [cod D/6] Dipartimento di Fisica funded by INFN (Project title: “Theoretical and experimental physics subjects of INFN interest”)1
- **LAST UPDATED ON 26/09/2013!** [cod D/10] Dipartimento di Fisica funded by INAF (targeted to one of the following projects; candidates have to choose one only: 1)“*The galaxy/IGM interplay in the redshift universe*”; 2)“*Stellar feedback and circulation of baryons*”; 3)“*Astronomica measurements of the variability of fundamental physical constants*”).....1

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(*)The scholarships below:

- [cod D/7] Dipartimento di Fisica funded by INFN (Project title: “Theoretical and experimental physics subjects of INFN interest”)1
- [cod D/8] Dipartimento di Fisica funded by Elettra – Sincrotrone Trieste S.C.p.A. – (Project title: “Experiments with synchrotron radiation”)1
- [cod D/9] Dipartimento di Fisica funded by Elettra – Sincrotrone Trieste S.C.p.A. – (Project title: “Development of novel free electron laser radiation sources”)1

are actually reserved to non-EU citizens meeting specific requirements (please check ATTACHMENT 4R – Physics); however some of them may become available if there are vacancies. Updates on the availability/unavailability of these scholarships will be published on <http://www2.units.it/dott/en/> → Admission procedure, immediately after the selection procedure has been completed.

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

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Candidates have to list which scholarships they apply for by specifying the corresponding codes in the “[Integration to the Application](#)”. Even scholarships (D7, D8, D9) can be specified in the form, though reserved to non-EU citizens meeting specific requirements (see attachment 4R – Physics), since some of them may become available if there are vacancies. If extra earmarked scholarships become available after candidates have completed their application, they can modify their preference list within the deadline for receiving certificates.

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PLACES WITH JOINT SUPERVISION OF THESIS: students from foreign universities may be admitted to the Ph.D. programme with a joint supervision of their thesis

ACADEMIC QUALIFICATION REQUIRED: art. 2 – Requisiti del Bando

1. Italian Master's Degree “Laurea Specialistica/Magistrale” or Degree awarded prior to approval of Ministerial Decree D.M. n. 509 of 3 Novembre 1999, updated with D.M. n. 270 of 22 October 2004, n. 270, (or a qualification corresponding to a Master's -second level- degree);
2. an equivalent foreign academic qualification awarded abroad
3. an academic qualification awarded abroad which is considered to be equivalent to the Italian degree that allows the holder to undertake Ph.D. studies for duration, level and area of study

DEADLINE FOR COMPLETION OF DEGREE: **26.10.2013**

ASSESSMENT CRITERIA: qualifications + written examination + oral interview

Only for ESF scholarships: project + qualifications + written examination + oral interview

- MAXIMUM FINAL SCORE (the final score is based on the sum total of marks obtained in the written examination and interview plus the points given for qualifications and publications):.....120/120

MINIMUM FINAL SCORE REQUIRED:.....80/120

- MAXIMUM FINAL SCORE only for ESF scholarships (based on the sum of the mark obtained in the written examination and interview plus the points given for qualifications and for the project)140/140

MINIMUM FINAL SCORE REQUIRED (only for ESF scholarships):.....90/140

- MAXIMUM NUMBER OF POINTS AWARDED FOR PROJECT (only for ESF scholarships)20/20

Project assessment shall take into account:

- 1 the value of the Research Project in relation to set objectives
- 2 the quality of the Research Project with specific attention to adopted methodology and chronogram of activities

MINIMUM SCORE REQUIRED FOR PROJECT (only for ESF scholarships):.....10/20

- MAXIMUM NUMBER OF POINTS AWARDED FOR QUALIFICATIONS+PUBLICATIONS: 20/20
WEIGHTING OF THE QUALIFICATIONS:

- “Integration to application (unless this form is presented, qualifications and publications CANNOT be assessed by the Examining Board):

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- a. a detailed curriculum vitae et studiorum, including a list of exams taken and marks obtained, and degree grade: 8/20
 - b. full copy or abstract of the MA thesis in Italian or English (Italian MA theses may be from “Laurea vecchio ordinamento” or “Laurea specialistica/magistrale”): 4/20
- as well as**
- c. max 4/20 for:
 - (i) Two letters of presentation from scholars/researchers acquainted with the candidate;
 - (ii) Candidate’s letter of intent (letter of presentation) specifying the research area of interest

d. Publications (if any): 4/20

MINIMUM SCORE REQUIRED FOR QUALIFICATIONS/PUBLICATIONS:no

- VOTAZIONE PROVA SCRITTA IN:.....50/50
- VOTAZIONE PROVA SCRITTA MINIMO RICHiesto:.....35/50
- ORAL EXAMINATION MARK OUT OF:50/50
- MINIMUM SCORE REQUIRED FOR INTERVIEW:.....35/50

DEADLINE FOR SUBMITTING QUALIFICATIONS AND PUBLICATIONS AND PROJECT (IF FORESEEN): 27.10.2013

QUALIFICATIONS AND PUBLICATIONS MAY BE SUBMITTED (art. 5.1.4 of the Ph.D. Announcement):

- as an attachment to the online admission application (upload)

LAST UPDATED ON 10.09.2013! NOTE: Only letters of recommendation should not be uploaded by the candidate but sent directly by professors/writers to:

scuoladifisica@units.it

Indicating in the subject: Letter to – Surname Name

The e-mail must be received no later than 24.00 (Italian time) on the day 27.10.2013

- only for publications that are voluminous or not available in electronic format, as long as they are listed in the form “Integration to application” (digital format preferable):e-mail (scanned documents, max zip file 10 MB) to Scuoladifisica@units.it

EXAMINATION SCHEDULE:

- WRITTEN EXAMINATION **28.10.2013 at 09.00 a.m.** at Dipartimento di Fisica,
Via Valerio, 2 – TRIESTE

POSSIBLE ALTERNATIVE LANGUAGE TO ITALIAN FOR THE WRITTEN EXAMINATION: English

- INTERVIEW: **30.10.2013 at 09.00 a.m. (Italian time)** at Dipartimento di Fisica, Via Valerio, 2 – TRIESTE

ALTERNATIVE LANGUAGE TO ITALIAN FOR THE INTERVIEW: English

CEFR LEVEL: B2

CONTACT INFORMATION

CHAIR: Prof. Paolo Camerini - Dipartimento di Fisica - Università degli Studi di Trieste - tel.040/558.3379; fax 040/558.3350 e-mail camerini@trieste.infn.it

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VICE: Prof.ssa Marisa Girardi - Dipartimento di Fisica teorica - Università degli Studi di Trieste - tel. 040 3199 147 fax 040 3199 123 e-mail girardi@oats.inaf.it

WEB SITE: <http://df.units.it/?q=it/node/2897>

EDUCATIONAL AIMS:

- Graduates will possess competency in basic principles of physics.
- Graduates will possess an advanced and deep knowledge of their own research area of specialization.
- Graduates will be highly skilled in using advanced scientific experimental/observational/computational/theoretical methods and/or tools appropriate to their area of specialization.
- 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 written dissertation.
- Graduates will be able to summarize about the main issues in their field and communicate the results of scientific research at a professional level as well as to other students.

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