



UNIVERSITY OF TRENTO - Italy

Announcement of selection for Doctoral positions Doctoral School in PHYSICS – 23rd cycle

THE RECTOR

Given Law no. 210 of the 3rd of July 1998 and in particular, art. 4, which assigns the organization of doctoral studies to universities in accordance with the general criteria stipulated by ministerial regulations;
Given the Ministerial Decree no. 224 of the 30th of April 1999, regarding the general criteria to be followed by individual universities in the organization of doctoral studies;
Given the Decree by the Prime Minister of the 9th of April 2001, and subsequent amendments on the general criteria for uniform treatment regarding the right to higher education;
Given the Statute of the University of Trento and in particular art. 8, paragraph 3;
Given the University Regulations for Doctoral Schools, issued with the Rector's Decree no. 997 of the 16th of December 2003 and amended with the Rector's Decree no. 359 of the 19th of April 2006;
Given the proposals made by the Department of Physics;
Given the report of the University Evaluation Committee of the 16th of January 2007 on the requirements for the Doctoral Schools proposed;
Given the resolution made jointly by the Academic Senate and the Scientific Research Committee on the 6th of February 2007

decrees

ART. 1 - INSTITUTION

The University of Trento announces the 23rd cycle of the Doctoral School in Physics.

Length: three years

Scientific areas: Experimental Physics
Theoretical Physics, mathematical methods and models
Physics of Matter
Nuclear and Sub nuclear Physics
Applied Physics
Teaching and History of Physics

Head of the School: prof. Renzo Vallauri - Tel. 0039 0461 881583 - E-mail: vallauri@science.unitn.it

Official language: Italian and English

The selection for 16 doctoral positions in the Doctoral School in Physics is announced, 12 positions will be assigned grants.

The grants are financed as follows:

6 grants	University of Trento
2 grant	Department of Physics, University of Trento, for research concerning specifically " <i>Silicon photonics</i> "
2 grants	Istituto Nazionale di Fisica Nucleare (INFN) in topics concerning " <i>Physics of fundamental interactions</i> "
1 grant	Fondazione Trentino Università, for research concerning specifically " <i>Solar power concentrators coupled to thermodynamic motors to convert solar energy into electrical and thermal energy</i> "
1 grant	INFN-CNR BEC in topics concerning " <i>Bose Einstein Condensation and ultracold atoms</i> "

The number of grant-assisted places may be increased by funds from universities, public research bodies or qualified private organizations made available after the publication of this announcement and before the assessment of qualifications. Any increase in the number of available places resulting from an increase of grants will be communicated through the official notice board of the University of Trento and posted on the website: <http://portale.unitn.it/en/ec/phd/phy.htm>

ART. 2 –ADMISSION REQUIREMENTS

Applications for the doctoral positions above are invited from candidates, regardless of sex, age and nationality, who have an Italian "laurea specialistica" (magistrale), instituted in compliance with Ministerial Decree no. 509 of the 3rd of November 1999 as amended, a university degree of the previous Italian regulations in force or equivalent degree qualification obtained abroad.

As concerns the assessment of qualifications the degree in Physics or in similar areas and subjects will be a preferential title.

Applicants who have a foreign qualification not officially recognized as equivalent to the Italian "laurea", must explicitly request recognition of equivalence in their application. In addition they must attach: (1) the degree certificate or self-certification (according to Presidential Decree no. 445 of the 28th of December 2000 concerning EU citizens); (2) the English translation of the degree certificate with exams taken and grades obtained, duly signed, to enable the Doctoral School Committee to declare its equivalence, valid only for the purpose of admission to the selection process.

Applications are also invited from students who expect to complete their degree **by the 17th of October 2007**. In such cases, admission will be "conditional" and the applicant must be able to present the relevant degree certificate or a declaration that the degree has been conferred (in compliance with Presidential Decree no. 445 of the 28th of December 2000, applicable only to EU citizens), to the Department of Physics (Via Sommarive, 14 – 38100 Povo, TN) **by the 17th of October 2007**.

Successful non-European Union applicants must present their degree certificate with the examinations passed and the scores obtained, translated and authenticated by an Italian consulate, embassy or diplomatic representative in the country of the university that issued the degree and the respective declaration of equivalent value ("Dichiarazione di valore") **not later than the date set for enrolment in the doctoral School**.

Art. 3 – THE DOCTORAL PROGRAMME

By convention, each year the work load for the course of study corresponds to 60 credits. Each doctoral student must attend courses corresponding to 12 credits by choosing:

- at least one course of general character offered by the School (6 credits),
- other specialised courses offered by the School (6 credits).

Usually the didactic activity ends within the first semester of the second year of the Doctorate

The rules concerning the training activity of the doctoral students are described in the Teaching Programme (Manifesto degli Studi) available on the website:

<http://portale.unitn.it/drphys/portalpage.do?channelId=-34948&activeLanguage=en>

Art. 4 – APPLICATION

Application should be made using the form attached to this announcement.

The application, including all the annexes required, must arrive at the University of Trento **by the 28th September 2007** in one of the following ways:

- hand delivered to the Department of Physics - University of Trento, Via Sommarive, 14 – 38050 Povo - Trento (ITALY), from 9.00 a.m. to 12.30 a.m., Monday to Friday;
- by mail to the following address: Magnifico Rettore dell'Università degli Studi di Trento, via Belenzani 12 38100 Trento (ITALY) (please, write on the envelope "Selection for Doctoral School in Physics");

The University of Trento does not accept responsibility for losses of communication/documentation caused by inaccurate indication of the delivery address indicated by the candidates or for mistakes made by the post office

Applications arriving after the 28th of September 2007 will be disregarded, even if sent before the deadline.

According to Italian Law no. 104/92, art. 20 and to Italian Law no. 68/99, art. 16, par. 1, applicants with special needs are expected to indicate explicitly in their application whether they require special assistance or extra time during the examinations. Under Legislative Decree 196/03, all information will be kept confidential.

Applications should include:

- photocopy of the applicant's identity card or passport;
- the degree certificate issued by the University with a list of the examinations successfully passed and scores obtained in each examination.

Applicants expecting to complete their degree by the **17th of October 2007**; must submit a certification of the enrolment in the course of studies with a list of the examinations passed successfully and scores obtained in each examination. The applicant must then provide the relevant degree certificate or a declaration that the degree has been conferred to the Department of Physics (Via Sommarive, 14 – 38100, POVO- TN) by the 17th of October 2007.

The EU citizens will be allowed to submit a self- certification according to the Presidential Decree no. 445 of the 28th of December 2000

Applicants who have a foreign qualification that has not been officially recognized as equivalent to the Italian degree, have to attach a translation in English of the degree certificate with exams and scores obtained, signed under their own responsibility in order to allow the Doctoral School Committee to declare the equivalence, valid for the only purpose of participating in the selection;

- a hard copy of the degree dissertation. Students who expect to get their degree by the **17th of October 2007**, have to send the hard copy of their dissertation within this date in order not to be excluded from the selection procedure;
- summary of the dissertation (in English for foreign applicants) explaining the reasons of the choice of the subject, the research methodology and results obtained;
- at least one letter of recommendation written by the dissertation advisor and/or other experts on the subject. The letter must be sent in a sealed and signed (by the person writing the letter) envelope;
- curriculum vitae et studiorum;
- any other qualifications useful for assessment of the applicant (e.g.: dissertations, scientific publications, study and post-graduate activities of research, prizes, grants etc.).

If, after the submission of their application, applicants have to add further documentation, it must reach the University offices **by the 28th of September 2007**. The candidate must clearly write on the envelope: applicant's name, Doctoral School in Physics and "Integrazione domanda".

The University of Trento has the right to check, even to spot check, declarations and documents provided by the candidates, according to art. 71 and following articles of the Presidential Decree no. 445 of the 28th of December 2000.

Any time, candidates not fulfilling the requirements requested can be left out the selection for the Doctoral School.

Art. 5 – SELECTION

Admission to the Doctoral School consists in an assessment of qualifications according to Art. 4 and an oral exam assessing the candidate's knowledge and his/her aptitude for scientific research.

The candidates not residing in Italy can sit the oral examination in their own country by telephone or video conference. In this case the candidate must fill in the ATTACHMENT A indicating the place where the examination can be held (University Institute or Consulate) and the name of a person who will assess his/her identity. The Admissions Committee will examine the requests as proposed by the candidate and will decide whether accept or not the telephone or video conference colloquium and will get in touch with the candidate to set the time for the examination.

The oral exam will also evaluate the candidate's knowledge of English language.

Applicants must show a document for identification in order to be admitted to the oral examination. The Admission Committee can assign each candidate a total score of 100 as follows:

- 0 – 30 for the assessment of qualifications;
- 0 – 70 for the oral exam.

Only those candidates who will reach a score of at least 15/30 for the assessment of qualifications will be admitted to the oral examination.

The selection is successfully passed with a minimum 60/100 points score.

The assessment of qualifications and the oral exam will take place in these days:

- assessment of qualification: 18th of October 2007.
- oral exams: 29th, 30th and 31st of October 2007.

At least 20 days before the date of the oral exams, the time and the location of them will be displayed on the website: <http://portale.unitn.it/en/ec/phd/phy.htm>, as laid down in Art. 20 of the University Regulations for Doctoral Schools.

Art. 6 – ORAL EXAMINATION

The oral exam will focus on the subject of the thesis and on the basic knowledge.

The oral exam may be held in a foreign language prior authorization by the Admissions Committee.

During the oral exam the foreign candidates should also demonstrate an adequate knowledge of the Italian language.

Art. 7 – ADMISSION COMMITTEE

The Rector, after hearing the Doctoral School Committee, appoints the Admission Committee. It will consist of 3 members chosen among Italian and foreign tenured professors and researchers, who are experts in the research areas of the Doctoral School. The Committee may also include two experts from public and private national and international research institutes.

After the entrance examinations, the Committee will draw up a general merit-based ranking according to the grades obtained by the applicants in the assessment of qualifications and in the oral examination.

The final ranking of candidates will be posted on the website: <http://portale.unitn.it/en/ec/phd/phy.htm>

Notification concerning the proceedings is considered to be fulfilled through publication of this list.

The successful applicants will not receive personal communication of their results.

Art. 8 - ADMISSION TO THE DOCTORAL SCHOOL

Short-listed applicants will be admitted to the Doctoral School according to their order on the list until all available places have been filled.

If the candidates are equally worthy of admission, the student's economic situation will be considered for places that include a grant, in accordance with the Decree of the President of the Council of Ministers (D.P.C.M.) of the 9th of April 2001 as amended, for places not assigned grant, the youngest student shall be given priority.

If a successful applicant withdraws before the beginning of the Doctorate, the next applicant on the list will be offered the place.

If a successful applicant withdraws or is excluded in the first three-month term of the first year, the Doctoral School Committee may decide to fill the vacant place with another candidate on the list.

According to art. 19, paragraph 3 of the University Regulations for Doctoral Schools and according to previous Doctoral School Committee resolutions, the Admission Committee **may admit** to the School up to 12.5% of the total assigned places, candidates who are eligible in the general ranking, if they belong to the following categories:

- applicants from non-E.U. countries who have been awarded any kind of grant;
- applicants from a country with a specific intergovernmental agreement with Italy, on the basis of a bilateral agreement between the University of Trento and the foreign university (with no obligatory financial burden for the University of Trento);
- short-listed applicants who have been awarded grants under Law 449/97, Art. 51 ("Assegni di ricerca").

Art. 9 – HOW TO ENROL

Successful applicants should forward their application for enrolment on paper with attached stamp duty to:

"University of Trento - Direzione Servizi e Comunicazione – Ufficio Dottorati di Ricerca, Via Inama 5 – 38100 Trento (ITALY)" within 15 days after the date of the publication of the final ranking at the page: <http://portale.unitn.it/en/ec/phd/phy.htm>

If applicable, the receipt of payment of the provincial tax for the right to university study (TDS) must be attached to applications.

In their applications (forms are available at Central Office of Doctoral Studies and on the website:

<http://portale.unitn.it/en/ec/phd.htm>) candidates should:

- ask / ask not to be awarded a grant (including successful applicants who are not eligible for a grant in case an applicant eligible for a grant gives up his/her place);
- declare that they already receive / do not receive a grant by the Italian Ministry of Foreign Affairs or by other Italian or foreign institution;
- declare that they have / have not already been awarded (even for one year only) a grant for an Italian Doctorate;
- declare that they are not already enrolled and undertake not to enrol on any other programme for a diploma, degree, an Italian "Scuola di Specializzazione", Doctorate or master degree, whether of the I or the II level, for the all duration of this Doctorate; if they are, they will stop attending such a school before starting of the Doctoral School;
- declare that they are / are not employed by the Italian public sector;
- declare to request in advance the Doctoral School Committee authorization for any occupation;
- undertake to inform the University of any changes of their residence or address.

Successful applicants from a non-E.U. country, who have a foreign qualification, must attach their degree certificate with the examinations passed and the scores obtained, translated and authenticated by an Italian consulate, embassy or diplomatic representative in the country of the university that issued the degree and the respective declaration of equivalent value ("Dichiarazione di Valore") **not later than the date set for enrolment in the Doctoral School.**

Successful applicants who do not send their application **within 15 days following the date of publication of the list** on the website: <http://portale.unitn.it/en/ec/phd/phy.htm> lose the right to enrol and the corresponding places will be offered to the next candidates on the list.

Art. 10 – GRANTS

Grants are assigned on the basis of the merit-based ranking of applicants drawn up by the Admission Committee.

If a candidate forfeits his right, the next candidate on the list will be offered the grant.

In case of one or more scholarships financed by external bodies, the candidates can choose according to their position on the merit-based ranking. Grants financed by external bodies, where specific research is required, limit the holder to carry out this work for the entire Doctoral programme so the candidate can choose to accept or not to accept the specific grant.

The net annual amount of the doctoral grant in the year 2007¹ will be:

- Euro 9,920.46 for doctoral students residing in Italy;
- Euro 10,561.54 for doctoral students not residing in Italy;
- Euro 10,209.88 for the doctoral students residing in Italy and contributing to an additional social security system.

Grants are normally paid bi-monthly in advance, with recovery of undue payments in case the student is expelled or suspended.

Grants cannot be combined with other scholarships, except those awarded by national or foreign scientific institutes for periods spent abroad and deemed useful for the research activities of the doctoral student.

Scholarships are increased by 50% for any periods spent abroad authorized by the Head of the School or by the Doctoral School Committee.

Grants are awarded for the entire duration of the Programme following confirmation by the Doctoral School Committee of the results achieved every year by the doctoral students.

Doctoral students' failure to attend the Programme for over thirty days will do grants being suspended.

If a doctoral student decides not to continue with his or her studies during any given year, he or she forfeits the right to use the grant for the amount which has not yet paid out.

Art. 11 - DOCTORAL STUDENTS RIGHTS AND DUTIES

Doctoral students must undertake to attend the Doctoral School and to carry out research activities on a full time basis according to the schedules and the regulations laid down by the Doctoral School Committee, as specified in Art. 3 of the present announcement.

¹ At the moment of the publication of this announcement the current Italian Law states that the Doctoral scholarship is subject to social security contributions (INPS 16% or 23.50%, 1/3 of which has to be paid by the Doctoral student), according to art .2, paragraph 26 of Law no. 335/95 as amended.

Students carrying out a co-tutelle thesis are required to spend a period of study and research in a foreign university according to the agreement with it.

The Doctoral School Committee, with a justified reason and after evaluating the activities carried out by the doctoral students, can suggest the Rector to exclude the student from the Doctoral Programme.

Grants financed by external bodies, where specific research is required, limit the grant holders to carry out the specific work for the entire Programme.

For the length of the Doctorate, students are insured by the University against accidents and damage to third parties that occur in circumstances pertaining to the Programme.

From the beginning and for the whole Doctorate, a public service employee accepted for a Doctoral Programme may request leave of absence for reasons of study, without monetary allowances and may benefit from the Doctoral grant, where the required conditions are met.

In the case of admission to a doctoral School without a grant or if the candidate has declined it, the person on absence of leave enjoys the economic remuneration and social insurance and retirement benefits enjoyed by the public administration where he/she is employed. Should the employee terminate employment in public administration in the two years succeeding his/her having obtained a Doctoral title, the amounts paid out during the course of the Doctorate are claimed back.

Art. 12 – DOCTORAL TITLE CONFERRAL

The title of “Dottore di Ricerca”, conferred by the Rector, is granted when students pass the final examination which takes place at the end of the three-year Doctoral School.

The Examination Committee will be nominated by the Rector, upon the advice of the Doctoral School Committee according to the University Regulations for Doctoral Schools.

Art. 13 – PERSONAL DATA

The University of Trento, in accordance with Legislative Decree 196/03 “Italian Personal Data Protection Code”, uses the applicants’ personal data only for fulfilment of the selection procedures and for institutional reasons.

In observance of the above-mentioned law, participation in the selection requires the applicant to give the University of Trento permission to publish his/her personal data concerning the results of the selection procedure on the University website.

Art. 14 – FURTHER REGULATIONS

For matters not explicitly mentioned in the present announcement, art. 4 of Law no. 210 of the 3rd of July 1998, the Ministerial Decree no. 224 of the 30th of April 1999 and the University Regulations for Doctoral Schools, issued with the Rector's Decree no. 997 of the 16th of December 2003 and amended with the Rector's Decree no. 359 of the 19th of April 2006 shall apply.

Trento, 4th of June 2007

The Rector
prof. Davide Bassi

To the Magnifico Rettore Università degli Studi di Trento Via Belenzani, 12 38100 Trento – ITALY

I, the undersigned, apply to be included in the competitive selection for the Doctoral School in
PHYSICS – 23rd cycle

For this purpose I, the undersigned, declare²

SURNAME	
FIRST NAME	
DATE OF BIRTH	
PLACE OF BIRTH Town/City	
Country	

PLACE OF RESIDENCE

Address			
Zip Code		Country	
Tel.		Fax	
E-mail			

ADDRESS FOR CORRESPONDENCE (if different from residence)

Address			
Zip Code		Country	
Tel.		Fax	

• **THAT I HAVE _____ CITIZENSHIP**

• ☐ **THAT I TOOK AN ITALIAN DEGREE**

in (subject)
at the University of
conferred on (date)
with mark

☐ **THAT I HAVE NOT YET GRADUATED** and I am aware that my admission to the Doctoral School depends on the presentation of my degree certificate by the 17th of October 2007³ and that I am currently

studying (subject)
at the University of
Country

☐ **THAT I HAVE A FOREIGN QUALIFICATION** which is recognized as equivalent to the Italian degree

Italian Rector's Decree recognizing equivalence	No.
	on (date)
	University of

² It is a criminal offence to provide incorrect or incomplete information; any candidate found to have done this will be automatically rejected from the Doctoral School.

³ I, the undersigned, undertake to bring to the Department of Physics – University of Trento, Via Sommarive, 14 – 38050 Povo TN (ITALY) a copy of the degree dissertation and the degree certificate by the 17th of October 2007.

☐ **THAT I HAVE A FOREIGN QUALIFICATION** and I request the Doctoral School Committee to recognize its equivalence to the Italian degree ⁴

in (subject)

at the University of

conferred on (date)

with mark

length of the course in years

• **THAT I HAVE KNOWLEDGE OF ENGLISH**

• **THAT I SPEAK THE FOLLOWING LANGUAGE(S)**

<input type="checkbox"/> Italian	<input type="checkbox"/> Spanish	<input type="checkbox"/> German	<input type="checkbox"/> French	<input type="checkbox"/> _____	<input type="checkbox"/> _____
----------------------------------	----------------------------------	---------------------------------	---------------------------------	--------------------------------	--------------------------------

• **THAT I UNDERTAKE** to inform the University of any changes of my address of residence, place of living and correspondence

• **THAT I HAVE / DO NOT HAVE** ⁵ **ANY DISABILITY** (art. 4 L. 104/92) and I need

- the following assistance: _____

- or extra time (mark as necessary): YES NO

• **THAT I AM AWARE AND I ACCEPT THE REGULATIONS REGARDING**

- the present announcement

- the University Regulations for Doctoral Schools

http://portale.unitn.it/en/rr/reg_doct.htm

- the Regulations of the Doctoral School in Physics

<http://portale.unitn.it/en/rr/reru.htm>

Date _____

Signature _____

⁴ Applicants from a country non E.U. have to attach to the application an English translation of their degree certificate with exams and scores obtained, signed under their own responsibility, so as to allow the Doctoral School Committee to declare the equivalence, valid for the only purpose of participating in the selection.

⁵ Cross out the item of no concern.

ATTACHMENT A⁶

I, (SURNAME) _____ (NAME) _____

ask to sit the entrance examination in my own country. For this purpose

I am indicating where I will sit the examination

The University of _____

The Institute of _____

The Italian Embassy in _____

LOCATED IN

Address		No.	Zip Code
Town / City	COUNTRY		
TELEPHONE	E-MAIL		
SKYPE ACCOUNT	WEBCAM		

I declare under my own responsibility that I will be identified by⁷

NAME _____

FIRST NAME _____

DATE OF BIRTH _____

PLACE OF BIRTH _____

TEL. _____

E-MAIL _____

QUALIFICATION _____

Date _____

Signature _____

⁶ To be filled in only by candidates, residing out of Italy, who ask the Admissions Committee for the examination be made on telephone in their countries.

⁷ The person who is going to identify the candidate cannot be the candidate.

ANNEXES⁸:

- photocopy of the applicant's identity card or passport;
- the degree certificate issued by the University with a list of the examinations successfully passed and scores obtained in each examination. Applicants expecting to complete their degree **by 17th of October 2007** must submit a certification of the enrolment in the course of studies with a list of the examinations passed successfully and scores obtained in each examination. The applicant must then provide the relevant degree certificate to the Secretariat of the Doctoral School (Via Sommarive , 14- 38100 , POVO, TN) and the related score by the **17th of October 2007**.
The EU citizens can provide the documentation submitting a certification in compliance with Presidential Decree no. 445 of 28.12.2000, applicable only to EU citizens.
Applicants who have a foreign qualification that has not been officially recognized as equivalent to the Italian degree, have to attach a translation in English of the degree certificate with exams and scores obtained, signed under their own responsibility, so as to allow the Doctoral School Committee to declare the equivalence, valid for the only purpose of participating in the selection.
- a hard copy of the degree dissertation. Students, who expect to complete their degree by the **17th of October 2007**, have to bring their copy of the degree dissertation and the degree certificate at last within this date;
- summary of the dissertation (in English for foreign applicants) explaining the reasons for the choice of the subject, the research methodology and results obtained;
- at least one letter of recommendation written by the dissertation advisor and/or other experts on the subject. The letter must be in a sealed envelope;
- curriculum vitae et studiorum;
- any other qualifications useful for assessment of the applicant (e.g.: dissertations, scientific publications, study and post-graduate activities of research, prizes, grants etc.).

⁸ After the conclusion of the entrance examination procedure, applicants intending to receive back their documents attached to their application for the selection of the Doctoral School must write to the Administration (Ufficio Dottorati di Ricerca) a specific request within a year the expire date of the present announcement. Any postal expenses will be met by the applicant.