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CALL FOR APPLICATIONS ADMISSION TO THE NATIONAL PHD PROGRAM IN SPACE SCIENCE AND TECHNOLOGY 38TH CYCLE ACADEMIC YEAR 2022/2023 DEADLINE FOR APPLICATION: August 8th 2022

| CUP | CUP |
|-------------------|------------------|
| (M4C1 – Inv. 4.1) | (M4C2 – Inv.3.3) |
| E63C22001340001 | E63C22001350008 |

N.B. Please note that only the Italian version of the present call issued with Rector's Decree no. 642 of 08.07.2022 is legally binding; the English version is provided for information only

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Art. 1 - OBJECT OF THE CALL

The University of Trento opens the call for applications for the admission to the 38th Cycle (Academic Year 2022/2023) of the National PhD Program in Space Science and Technology – SST as follows. **Positions:** n. **38 Scholarships:** n. **37 (given theme) Positions without scholarships:** n. **1 Supernumerary positions (art. 7 of selection Call):** n. **1**

Positions are divided as follows:

| SUMMARY OF AVAILABLE SCHOLARSHIPS | | | | | |
|---|--------------------|--------------|--|--|--|
| | | | | | |
| CURRICU | ILUM 1 – OBSER\ | ATION OF THE | UNIVERSE | | |
| SUPPORTING INSTITUTION | N. OF POSITIONS | LOCATION | THEME OF THE SCHOLARSHIP | | |
| Gran Sasso Science Institute - GSSI | 1 | L'Aquila | 1A - Study of the high energy cosmic radiation with space-based missions and corresponding detector design and optimization | | |
| University School for Advanced Studies - Pavia | 1 | Pavia | 1B - Multi-wavelength observations of Galactic and extragalactic compact objects and transients | | |
| University School for Advanced Studies - IUSS Pavia | 1 | Pavia | 1C - Galactic science with Cherenkov Telescope Array | | |
| International School for Advanced Studies - SISSA Trieste | 1 | Trieste | 1D - Analysis, Combination and Interpretation of Space Measurements of Galactic, Extra- Galactic and Cosmological Electro- Magnetic and Gravitational Radiation | | |
| University of Bari Aldo Moro | 1 | Bari | 1E - Multi-messenger and multi- wavelength observations of Cosmic Rays accelerators | | |

| University of Brescia | 1 | Brescia | 1F - Understanding the production mechanism of light antinuclei to constraint indirect searches for dark matter annihilation in space |
|-------------------------------|----|----------|---|
| University of Ferrara | 1 | Ferrara | 1G - Constraints from space borne observations of the cosmic microwave background and of the large scale structure of the Universe |
| University of Florence | 1 | Florence | 1H - Space based observations and experiments for the detection of cosmic sources and the characterization of their physical properties |
| University of Pisa | 1 | Pisa | 1L - Modeling and experimental study of astrophysical processes across the electromagnetic spectrum |
| University of Turin | 1 | Turin | 1M - Multimessenger and multiwavelength signals of particle dark matter |
| University of Trento | 1 | Trento | 1N - Measurements of antimatter in space |
| Positions without scholarship | 0 | | |
| NUMBER OF SCHOLARSHIPS | 11 | | |
| | | | |

CURRICULUM 2 – EARTH AND EARTH-SUN SYSTEM

| SUPPORTING INSTITUTION | N. OF POSITIONS | LOCATION | THEME OF THE SCHOLARSHIP |
|---|--------------------|------------------|---|
| National Institute for Geophysics and Vulcanology - INGV | 1 | Catania, Rome | 2A - Studies of the coupling processes of geospheres (from the lithosphere to the upper |

| | | | atmosphere) induced by volcanic activity |
|--------------------------------|---|---------|--|
| University of Calabria | 1 | Cosenza | 2B - Space physics and Sun-Earth relations |
| University of Rome Tor Vergata | 1 | Rome | 2C - Study through nanosatellites of solar drivers and Sun-Planet interaction in the context of Space Weather |
| Positions without scholarship | 0 | | |
| NUMBER OF SCHOLARSHIPS | 3 | | |

CURRICULUM 3 – PLANETARY SCIENCES

| SUPPORTING INSTITUTION | N. OF POSITIONS | LOCATION | THEME OF THE SCHOLARSHIP |
|--|--------------------|--------------------------------|--|
| National Institute for Astrophysics - INAF | 1 | One of INAF site in Italy | 3A - Sensors and techniques for the exploration of the Solar System |
| National Institute for Advanced Mathematics "Francesco Severi" - INDAM | 1 | Rome Padua Pisa Turin | 3B - Mathematical challenges in space science: theoretical and computational methods in Celestial Mechanics and Astrodynamics |
| University of Florence | 1 | Florence | 3C - Natural and synthetic analogues of the planet Mercury: mineralogical and petrological aspects |
| University of Padua | 1 | Padua | 3D - Search, characterization and exploration of exoplanets and exoplanetary systems |

| University of Trento | 1 | Trento | 3E - Analysis of planetary data acquired by remote sensing and radar instruments |
|--------------------------------|--------------------|--------------|--|
| Positions without scholarship | 0 | | |
| NUMBER OF SCHOLARSHIPS | 5 | | |
| | | | |
| CURRICULUM 4 – AS | TROBIOLOGY, L | IFE SCIENCES | AND SPACE MEDICINE |
| SUPPORTING INSTITUTION | N. OF POSITIONS | LOCATION | THEME OF THE SCHOLARSHIP |
| University of l'Aquila | 1 | L 'Aquila | 4A - Bioactive lipids and resolution of inflammation in microgravity |
| University of Milan | 1 | Milan | 4B - Molecular modifications induced by long term spaceflight in humans and in experimental biological models. Focus on innovative countermeasures to support space exploration |
| University of Pisa | 1 | Pisa | 4C - Astrobiology, Life Science and Space Medicine |
| University of Rome Tor Vergata | 1 | Rome | 4D - Bioengineering approaches to neurophysiology in the space environment |
| University of Trento | 1 | Trento | 4E - Physiological adaptations and behavioral alterations in extreme environmental conditions and microgravity |
| Positions without scholarship | 0 | | |

| NUMBER OF SCHOLARSHIPS | 5 | | | |
|--|--------------------|--------------|--|--|
| | | | | |
| CURRICULUM | 1 5 – SPACE SEN | Sors and INS | RUMENTATION | |
| SUPPORTING INSTITUTION | N. OF POSITIONS | LOCATION | THEME OF THE SCHOLARSHIP | |
| National Inter-University Consortium for Telecommunications - CNIT | 1 | Pisa | 5A - Space surveillance and tracking with radar systems | |
| National Research Council - CNR | 1 | Florence | 5B - Study, design and qualification of electronics and electro-optical systems for space applications | |
| Bruno Kessler Foundation - FBK | 1 | Trento | 5C - Space compliant LGAD sensors | |
| National Institute for Nuclear Physics - INFN | 1 | Rome Bari | 5D - Design and prototype characterization of innovative high energy particle detectors for space application | |
| School of Advanced Studies - Pisa | 1 | Pisa | 5E - Photonic Integrated Sensor Systems for Space Applications | |
| University of Palermo | 1 | Palermo | 5F - Modular observatories to study the most energetic events in the Universe | |
| University of Salento | 1 | Lecce | 5G - Design, simulation and test of a not-imaging space detector devoted to cosmic-rays studies | |
| Positions without scholarship | 0 | | | |
| NUMBER OF SCHOLARSHIPS | 7 | | | |
| | | | | |

| CURRICULUM 6 – ENGINEERING AND SATELLITE PLATFORM TECHNOLOGIES | | | | |
|---|--------------------|----------------|---|--|
| SUPPORTING INSTITUTION | N. OF POSITIONS | LOCATION | THEME OF THE SCHOLARSHIP | |
| National Research Council - CNR | 1 | Turin Milan | 6A - Advanced manufacturing of microwave and millimeter/sub- millimiter-wave components for Space payloads | |
| Bruno Kessler Foundation - FBK | 1 | Trento | 6B - Model-based software engineering and formal methods for space systems | |
| Bruno Kessler Foundation - FBK | 1 | Trento | 6C - Self-antifrosting microstructured surfaces | |
| University of Cagliari | 1 | Cagliari | 6D - Antennas, sensors and RF systems for satellite applications | |
| University of Pisa | 1 | Pisa | 6E - Engineering challenges for future 'near-Earth' missions | |
| University of Trieste | 1 | Trieste | 6F - Telecommunication systems: High frequency transceiver systems for small satellites, towards a 5G transceiver in Ka band | |
| Positions without scholarship | 0 | | | |
| NUMBER OF SCHOLARSHIPS | 6 | | 6 | |
| | | | | |
| CURRICULUM 7 – SPACE ECONOMY, LAW AND DIPLOMACY | | | | |
| SUPPORTING INSTITUTION | N. OF POSITIONS | LOCATION | THEME OF THE SCHOLARSHIP | |
| Positions without scholarship | 1 | Padua | | |

Γ

| NUMBER OF SCHOLARSHIPS | 1 | | |
|-------------------------------------|---|-------|--|
| Supernumerary positions (see art.7) | 1 | Padua | |

The scholarships may be assigned only to those applicants who specifically have applied for them (reserved scholarships). Each scholarship is related to specific research topics for which specific skills are required. The corresponding research will be carried out at the institutional locations indicated in the table above. The applicants' eligibility to the selected scholarships will be evaluated during the oral interview.

Applicants interested in one or more scholarships must therefore carefully check on the <u>selection</u> <u>website</u> the topic and the required skills, and, if the scholarship entail the acceptance of confidentiality commitment and/or transfer of intellectual property rights.

Additional reserved positions covered by additional scholarships or other financial support may be added after the publication of this call and until the beginning of the oral interviews. Each new position available will be posted solely on the <u>selection website</u>.

Additional reserved scholarships: For reserved fellowships that may be published after the issuance of this notice (additional), candidates should apply following the procedure that will be indicated on the <u>selection website</u>.

Moreover, applicants selected by special committees belonging to specific international mobility programs involving the participating Institutions, may also be admitted to the 38th Cycle additional positions, following a decision of the PhD selection committee.

- Deadline for application: August 8th 2022, 4 pm CEST
- Duration: three years
- Start of the academic Year: November 1st 2022
- Official language: English
- PhD Program Website
- Selection Website
- PhD Program Director: Prof. Roberto Battiston roberto.battiston@unitn.it
- Rights and duties of PhD students
- Info about PhD scholarships

Important

a. The dates of the selection and all selection results (interim and final), the possible exclusion from the selection due to an incomplete application (art. 3), the exclusion for foreign qualification not recognized as suitable (art. 2), and any notices related to the call will be

published only on the <u>selection website</u>; the applicants will be identified through the **application ID** therefore it is recommended to keep it safe. The publication on the website is to all intents and purposes valid as official notification: no personal communication will be sent.

b. Possible communication related to the call for selection will be sent by e-mail to the applicants' personal email address connected to the account registered by the system when closing the application. Applicants with an active or just concluded career at the University of Trento are advised to check their personal email address at the link: <u>Account profile data</u>. In case you need to change your personal email address after the application closure, please send a request to the PhD Office S&T (<u>phd.office-st@unitn.it</u>).

1.1 Description and objectives of the PhD Program

Italy has a long tradition in space science and technology and has developed a complete chain of activities linking university education, academic and private research, and industrial activities. Italian public investment in space has increased in recent years. Space is an area where the National Recovery and Resilience Plan (PNRR) invests significant resources: in this context MUR and ASI have launched a national call for an Extended Partnership dedicated to the development of basic space science and technology.

Space is a multidisciplinary field that requires specific education and training. A National PhD Program dedicated to Spaces Science and Technology is therefore timely, strategic and well justified, bringing together scientific and technological expertises, Universities and Research Institutions, Academia and Industry.

The training topics related to space activities cover different areas what makes the National PhD Program approach particularly effective, as training content, from the many universities and research organizations involved, can be shared, thus ensuring quality and excellence in content and at the same time a wide variety of training profiles for PhD students.

The Course is divided into the following seven curricula, the description of which (with the relevant SSDs - Scientific Disciplinary Sectors) can be found in the PhD Programme website.

- 1- Observation of the Universe
- 2- Earth and the Sun-Earth system
- 3- Planetary Sciences
- 4- Astrobiology, Life Sciences and Space Medicine
- 5- Space Sensing and Instrumentation
- 6- Engineering and satellite platform technologies
- 7- Space Economy, law and diplomacy.

1.2 Participating Universities and Research Institutions

To launch the National PhD Program, the University of Trento has signed agreements with the following Universities and Research Institutions operational PhD sites:

Universities:

- 1. Gran Sasso Science Institute GSSI
- 2. University School for Advanced Studies Pavia
- 3. School of Advanced Studies Pisa
- 4. International School for Advanced Studies SISSA Trieste
- 5. University of Bari Aldo Moro
- 6. University of Brescia
- 7. University of Cagliari
- 8. University of Calabria
- 9. University of Ferrara
- 10. University of Florence
- 11. University of L'Aquila
- 12. University of Milan
- 13. University of Padua
- 14. University of Palermo
- 15. University of Pisa
- 16. University of Rome Tor Vergata
- 17. University of Salento
- 18. University of Turin
- 19. University of Trieste

Research Institutions:

- 1. National Inter-University Consortium for Telecommunications (CNIT)
- 2. National Research Council (CNR)
- 3. Bruno Kessler Foundation (FBK)
- 4. National Institute for Astrophysics (INAF)
- 5. National Institute for Advanced Mathematics "Francesco Severi" (INDAM)
- 6. National Institute for Nuclear Physics (INFN)
- 7. National Institute for Geophysics and Volcanology (INGV)

Art. 2 - ADMISSION REQUIREMENTS

1. Applications for PhD positions are accepted from applicants, regardless of gender, age and nationality, holding:

a) an Italian "Laurea Magistrale" or "Laurea Specialistica", according to the Ministerial Decree no. 509 of 03.11.1999, subsequently amended by Ministerial Decree no. 270 of 22.10.2004;

or

b) a university degree obtained at an Italian Institution belonging to the AFAM system (Alta Formazione Artistica e Musicale);

or

c) an equivalent foreign degree (Master's degree) obtained at an officially recognized academic institution, valid for admission to PhD studies in the Country where it has been issued (except for substantial differences) and similar (duration and level) to the Italian degree, recognized as eligible¹ by the Selection Committee for the sole purpose of accessing this specific PhD Program².

- 2. Applications are also accepted from students expected to obtain the necessary degree by October 31st, 2022. Admission to the PhD Program for successful applicants who have not yet graduated will be "conditional" and the applicant will have to submit to the PhD Office S&T (via email to: phd.office-st@unitn.it) by November 8th, 2022, on penalty of exclusion, the certificate awarded or a self-declaration (using the Declaration substituting Degree Certificate also available on the PhD Program application procedure).
- 3. Applicants with a foreign qualification that has not been officially recognised as equivalent³ to a second cycle Italian degree (Laurea Magistrale/Specialistica/vecchio ordinamento) will be considered as requesting equivalence in their application, by attaching the necessary supporting documents.

It is in the applicant's interest to provide all the elements useful for the assessment, especially if the education system of the country where the qualification was obtained is not similar to the Italian one.

The Selection Committee may require the applicant to provide additional documentation if deemed necessary for the purpose of assessing the eligibility.

4. Applicants who have already obtained the PhD degree will be admitted to attend a second PhD Program, after passing the selection procedure, provided that the prevailing subjects and scientific areas are different from those regarding the previous PhD degree. Applicants who have already benefited from a scholarship, even partially, cannot be assigned any scholarships in the new PhD Program.

¹ The eligibility of foreign academic degrees is assessed by the Selection Committee, following the rules in force or the international treaties or recognition of academic qualifications.

 ² Details at: <u>http://www.cimea.it/en/servizi/il-sistema-italiano-di-istruzione-superiore/qualifiche-del-sistema-universitario.aspx</u>
³ For further information see at

http://www.cimea.it/en/servizi/procedure-di-riconoscimento-dei-titoli/procedure-di-riconoscimento-accademico-dei-titoli.aspx

Art. 3 - APPLICATION PROCEDURE

The application⁴ must be completed and submitted by hrs. 04.00 p.m. Italian time of August 8th, 2022, exclusively through the online system: <u>PhD Programs Applications</u>.

Authentication to the registration procedure is possible through⁵:

• **SPID**⁶; to access the registration procedure we advise to use SPID, the Italian Public Digital Identity System, which automatically certifies the applicant's identity on the UniTrento systems and sets up an account as @unitn.it. To request a SPID identity (useful to access different online services of the Italian Public Administration) please visit the webpage: <u>How</u> to activate the SPID identity;

• **University of Trento account**: for those who do not have SPID identity but already have a University of Trento account can access the application procedure with their existing username (<u>name.surname@guest.unitn.it</u>, or <u>name.surname@gunitn.it</u>).

Please see here, if you <u>forgot your password</u>; to have more information on UniTrento <u>username and password</u>;

• a UniTrento "guest" temporary account: those who do not have a SPID identity or a University of Trento account can set up a temporary "guest" account. After the matriculation, this account will be converted into a final one as @unitn.it. Procedure at: Account registration info

The application requires a non-refundable application fee of € 15 (fifteen) to be paid by PagoPA payment system⁷ according to the instructions given in the appropriate section of the online application.

The online application can be saved and modified several times until the final submission. Thereafter it can no longer be changed.

3. The online application is considered to be a self-declaration of personal data and qualifications with full legal effect. It is the sole responsibility of the applicant to make sure that the online application has been successfully submitted and an email notification has been received.

There will be no liability with the University in the event that an application is not submitted correctly.

⁴ The applicant can choose either Italian or English to fill in the application online.

⁵ Applicants are advised to register well in advance of the deadline. The issue of credentials (username and password) may require up to three working days. Those who already hold a UniTrento account but forgot the password can request a new one at: <u>https://icts.unitn.it/en/password</u>

⁶ For more info visit the website: <u>https://www.spid.gov.it/en/what-is-spid/</u>

⁷ Further information about PagoPA service at: <u>https://www.unitn.it/en/phd-pagopa</u>

- 4. When filling in the online application, it is mandatory to choose one up to a maximum of two curricula. A Statement of Purpose (see 5.F below) explaining in detail the reasons for the choice and a Research Proposal (see 5.G below) must be prepared for each chosen curriculum. If two curricula are chosen, the order of priority must be provided, which will be taken into consideration when the scholarships are awarded (see Art. 5 below).
- For **each selected curriculum**, the reserved scholarships (maximum 3) for which the candidate intends to compete must also be provided in **binding order of priority**.
- The oral interview will include an assessment of the specific skills required to qualify for the scholarships listed in the list submitted by the candidate or applicant.

Regarding additional reserved scholarships added after the publication of this call, applicants will be required to express their interest for them according to the instructions given at the <u>selection web</u> <u>page</u>. During the interview, applicant eligibility for the additional reserved scholarship/s will be specifically evaluated.

5. **MANDATORY ATTACHMENTS** (failure to upload one or more mandatory attachments will result in automatic exclusion from the selection)

A. Identifying documento (ID):

- A copy of the applicant's valid **identity card** (only EU citizens) or **passport** (non-EU citizens), in particular of the pages reporting his/her photograph, personal data, number, place and date of issue, expiration date and signature;

B. Academic degree for admission to the PhD Program:

a. Italian qualification:

• already obtained/to be obtained: a self-declaration, in accordance with Presidential Decree art. 46 no. 445 of 28.12.2000 and subsequent amendments, declaring the possession of a degree (art. 2 of this Call), "Classe di Laurea", issuing University, award date and final grade / possible award date, examinations taken, dates, grades and credits obtained (by using the form "Declaration substituting Degree Certificate"); graduates from the University of Trento may only declare the place and the date of award / foreseen date of award as the other information can be collected ex officio;

b. foreign qualification⁸:

already obtained:

- a certificate stating the possession of a second level university qualification (see art. 2 paragraph 1 letter c), issued by the institution that awarded it. The certificate must indicate the type of diploma, the date it was awarded and the relative grade;

⁸ It is in the interest of the applicant to provide all information relevant for the assessment, especially if the country where the qualification was obtained has an education system not comparable to the Italian one.

- a list of exams taken to obtain the qualification to access a PhD Program (academic transcript of records of the Master's degree) with relative credits (if provided for in the university system of the country that awarded the qualification), marks, and rating scale.
- If the university studies carried out abroad are divided into first and second level, the Bachelor's degree and the list of examinations taken to obtain that degree (academic transcript of records of the Bachelor's degree) should also be attached.
- to be obtained:

- a certificate of enrolment in a course of study that allows admission to a PhD **Program** (see art. 2 paragraph 1 letter c), with a list of the examinations successfully passed, credits obtained in each examination (if provided for in the university system of the country that awarded the qualification), marks, rating scale (academic transcript of records) and the possible award date.

- If the university studies carried out abroad are divided into first and second level, the Bachelor's degree and the list of examinations taken to obtain that degree (academic transcript of records of the Bachelor's degree), should also be provided.

If the aforementioned **documents** are **not** in **English**, they must be accompanied by a **translation** in Italian or in English **provisionally made by the applicant** who takes responsibility for the accuracy of the translation and its compliance with the original text.

C. curriculum vitae et studiorum (with list of publications, if any) in Italian or English, preferably according to the <u>Europass model</u>; all research experiences previous and planned for the future (academic degrees held and any university enrolments in progress must be specified in detail; please specify also the High School diploma details), any research skills acquired or other items relevant to the subject of the call for proposals.

D. summary of the Master's thesis (**in English**) explaining the reasons for the choice of the topics, the research methodology and the results obtained (max. 3.000 characters, including spaces); those who have not yet obtained the title may attach a statement with the data and contact information of the supervisor using the form "<u>Declaration substituting Degree Certificate</u>".

E. **Statement of Purpose in English** (max 3.000 characters, including spaces): one for each selected curriculum, in which the candidate specifies the motivation(s) that lead him/her to undertake the PhD and in particular the reason for choosing the PhD program in Space Science and Technology (max 3,000 characters including spaces). If two curricula have been selected, it is necessary to explain the reasons in detail and thus submit two different letters of motivation;

F. A short Research Proposal (in English), that will be used for evaluation purposes only and will not be binding for the research activities that would eventually be carried out during the PhD. The proposal may cover a topic of the candidate's choice related to the foundational disciplines of the PhD Program in Space Science and Technology; it should be a maximum of two pages (max 4.000 characters, including spaces) divided into: "Background and Rationale" and "Objectives" of the project.

6. OPTIONAL ATTACHMENTS:

G. the name of one referee, expert in the research fields of the PhD Program, working at universities or national and international research institutions, with details of his/her e-mail addresses. The reference letter must not be sent by candidates. Once the Referee section has been completed and saved by the candidate, the system automatically sends, within 24 hours, a notification email to the referee containing the instructions and modalities of transmission. Letter has to be issued on the base of a model sent directly to referee, and it should be uploaded on the website by him/her; It is strongly recommended that applicants verify that the referee has uploaded the Reference Letter no later than **August 20th**, **2022**;

H. **Other qualifications**, such as English language certifications, international tests (e.g., GRE or equivalent), and other documents useful in attesting the candidate's or applicant's aptitude for research;

I. copy of the first-level academic degree (Bachelor's degree) and transcript;

L. **copy of the title page** of the thesis containing the title of the thesis and the name of the thesis supervisor; candidates who have not yet obtained the title may attach a <u>statement</u> with the data and contact information of the thesis supervisor;

M. Applicants with a foreign qualification may attach:

- **academic diploma** of the Master's degree (Master of Science/Arts or equivalent), in its original language and

- **Diploma Supplement**⁹ (DS) drafted according to the form developed by the European Commission, the Council of Europe and UNESCO / CEPES;

alternatively

- **Declaration of value**¹⁰ which certifies that the educational qualification is valid in the country of issuance for admission to a PhD Program (third level of higher education according to the Bologna Process - European Higher Education Area; EQF level 8);

alternatively

- **Statement of comparability** of foreign university qualification¹¹ issued by the ENIC-NARIC Center in Italy (CIMEA) that contains all the information necessary for the assessment of the qualification.

⁹ The Diploma Supplement accompanies a higher education diploma, providing an improvement in international "transparency" and a promotion of the academic and professional qualifications obtained (diploma, degrees, certificates, etc.). The Diploma Supplement must be issued by the same institution that issued the qualification. Further information at http://www.cimea.it/en/servizi/il-sistema-italiano-di-istruzione-superiore/diploma-supplement.aspx and http://www.cimea.it/en/servizi/il-sistema-italiano-di-istruzione-superiore/diploma-supplement.aspx and http://www.cimea.it/en/servizi/il-sistema-italiano-di-istruzione-superiore/diploma-supplement.aspx and http://www.cimea.it/en/servizi/il-sistema-italiano-di-istruzione-superiore/diploma-supplement.aspx and http://www.cimea.it/en/servizi/il-sistema-italiano-di-istruzione-supplement-aspx and http://www.cimea.italiano-di-istruzione-supplement-aspx and http://www.cimea.italiano-di-istruzione-supplement-aspx and http://www.cimea.italiano-di-istruzione-supplement-aspx and http://www.cimea.italiano-di-istruzione-supplement-aspx

¹⁰ Further information about DoV and equivalence:

http://www.cimea.it/en/servizi/procedure-di-riconoscimento-dei-titoli/glossario.aspx

¹¹ The University of Trento signed an agreement with the CIMEA Association about evaluating and verifying foreign titles through the online platform Diplome. Further information at: <u>https://international.unitn.it/incoming/diploma-verification</u>

If the foreign academic qualification has already been recognized as equivalent¹² to a second cycle Italian qualification **by the competent academic bodies of Italian universities**, the equivalence provision (**Rectoral Decree**) must be attached.

7. The University will accept additional documents to be included in the application submitted if sent by email to <u>ateneo@unitn.it</u> (Subject: "Application ID number- applicant's Surname and Name – PhD Program in Space Science and Technology – 38th cycle - Supplement to application") by **August 8th**, **2022 at 4:00** p.m. Italian time. **Additional documents submitted by other means will not be considered.**

8. Only documents (originals or copies) in English and Italian will be considered for the selection by the Selection Committee; for all other languages it is compulsory to attach a translation into English or Italian signed by the applicant.

The mandatory annexes under D, F, G must be submitted in English only.

9. All applicants are admitted to the selection procedure **conditionally upon verification that they fulfill the admission requirements (art. 2)**. The University of Trento has the right to verify the documents delivered pursuant to articles 71 et seq. of the Presidential Decree no. 445 of 28.12.2000. The University can at any time, even after enrolment and upon justified reasons, decide the exclusion of applicants lacking the requirements specified in the present call.

10. According to Italian Law no. 104/92, Art. 20 and to Italian Law no. 68/99, Art. 16 (1), applicants with special needs or with learning disabilities may explicitly request in their application special assistance or extra time during the examinations, in accordance with their disability. In this case personal data will be processed in compliance with the current law as indicated in the GDPR Privacy notice.

Art. 4 – EVALUATION OF APPLICATIONS

1. The evaluation is made by a Selection Committee appointed by the Rector upon advice from the PhD Committee, in accordance with the University Regulations for PhD Programs. The Selection Committee sets the evaluation criteria during a preliminary meeting.

2. The selection procedure is designed to rank, comparatively, the knowledge and aptitude of the applicants to carry out research in areas and curricula related to the PhD Program. The Commission will have 100 points, distributed as stated below.

The selection is made on the basis of the assessment of:

¹² Details at

 $[\]underline{http://www.cimea.it/en/servizi/procedure-di-riconoscimento-dei-titoli/procedure-di-riconoscimento-accademico-dei-titoli.aspx}$

a) **all the mandatory applicant's qualifications** listed in previous art. 3. Specifically, the committee will award the following scores:

- evaluation of **Curriculum Vitae** and **Course of study** (points C, D of the mandatory attachments to the application): **maximum 25 points**

- evaluation of the **Research Proposal** and **Statement of Purpose** (referred to in points F and G of the mandatory attachments to the application): **maximum 35 points**

Applicants who score no less than 35/60 points in the above evaluation will be admitted to the interview.

b) **Oral Exam and Reference Letter (if any) (max 40 points):** the oral interview is conducted in English and online and will consist of a discussion of the submitted qualifications, Research Proposal and Statement of Purpose. The candidate's presentation of the above may also take place, at his/her discretion, through the use of video-shared slides. For each of the research topics put up for discussion, the Committee may invite experts with proven expertise in the subject matter, who can be members of the PhD Program Committee, to participate in the interview.

During the interview, the Commission will ascertain the possession of the basic disciplinary knowledge required to attend the PhD course and evaluate the candidate's suitability with respect to each of the scholarships for which the candidate expressed interest in the application.

The Selection Committee will evaluate the interview by awarding a maximum score of 40 points. Applicants who score less than 25/40 points in the interview will be excluded from the final list.

3. The selection will take place with the following schedule:

- titles evaluation: starting from **29/08/2022**;
- interviews: starting from 20/09/2022.

4. The interview will be conducted online through the use of audio-video connection tools that allow:

- the correct identification of the participants (through a webcam);

- the conduct of the oral test in public form.

Date, time and place of the interview and possible changes will be posted on the selection website. To simplify the identification procedures, the identification document shall be the one attached when filling in the online application.

Applicants not connecting for the interview for whatever the reason, or not being reachable on the day and at the time set for the examination, or not providing a valid identification document constitute grounds for exclusion.

5. The candidate may also declare his or her willingness to be evaluated for the assignment of thematically restricted scholarships in addition to those for which he or she has expressed preference, if there are unassigned scholarships as a result of lack of interest on the part of other candidates or if no one has been deemed eligible.

Art. 5 - RANKINGS

1. Upon completion of the evaluation work, the Commission compiles **for each curriculum** an overall merit ranking: to each candidate is assigned a score and one or more prioritized eligibility.

2. The available positions are assigned to short-listed applicants according to:

a) the position in the OVERALL ranking list;

b) the applicant's prioritized eligibility for a given specific reserved scholarship still available following the order of the ranking list.

3. If the candidate appears in the ranking lists of two curricula, he/she will be required to accept the position related to the scholarship theme belonging to the curriculum indicated as priority in the online application and will be removed from the ranking list of the other curriculum.

If the candidate appears in the ranking lists of the curriculum indicated as secondary and accepts the scholarship, he/she will not be considered in the event the ranking list is shifted during a subsequent phase of the scholarship matching.

In the event the candidate did not appear in a ranking list and in case of subsequent rankings shift, the candidate may propose a scholarships theme on any of the two curricula regardless of the preferred curriculum indicated in the online application.

In case of equal score, see the following art. 6.

4. Non-allocated scholarships on reserved topics will result in the reduction of the number of positions available.

Art. 6 - ADMISSION TO THE PHD PROGRAM AND ENROLMENT

1. Short-listed applicants are admitted to the PhD Program based on the final ranking list until the available positions have been filled. All applicants compete for the award of the funded reserved scholarships; applicants who have been awarded a scholarship on a specific reserved topic must accept it. Renouncing to the assigned scholarship implies the applicant's exclusion from the right to enroll in the National PhD Program.

2. Should two applicants obtain the same score, regarding the award of the scholarship, the applicants' economic situations shall be the deciding factor, in accordance with the criteria established by the Italian Prime Minister's Decree of 09.04.2001 and subsequent amendments and integrations. As for positions without scholarship, the younger of the two applicants will be selected.

3. Admitted applicants must enrol following the instructions at Enrolment 1, 2, 3 year:

- within 8 days starting from the day following the publication of the final ranking lists on the <u>selection</u> website for positions covered with scholarships or other form of financial support;

- within 14 days starting from the day following publication of the final ranking lists on the selection website for positions without scholarships or other form of financial support.

N.B.! Admitted applicants with a qualification that has not been awarded in Italy must deliver (if they had not already done so during the application phase – "Application procedure") the PhD Office S&T (sending them in advance by email: <u>phd.office-st@unitn.it</u>) by **November 8**th:

• academic diploma of the Master's degree (Master of Science/Arts or equivalent) in the original or certified copy, together with the academic transcript of records, possible official

translations¹³, legalized or with an apostille affixed¹⁴ (please carefully verify the fulfillment of the requirements set by the issuing country of the title).

• **Diploma Supplement** (if provided for by the university where the title was issued, it is commonly used within the member countries of the European Higher Education Area (EHEA))

Alternatively

• **Declaration of Value**¹⁵ issued by the Italian diplomatic or consular representations country of origin of the institution that awarded the title

alternatively

• **Statement of comparability**¹⁶ of foreign university qualifications issued by the ENIC-NARIC Center in Italy (CIMEA) that contains all the information necessary for the assessment of the qualification.

In case the Diploma Supplement, or the Declaration of Value, or the Statement of comparability are not available by **November 8th** 2022, admitted applicants must deliver a document showing that they asked the University/the Italian diplomatic or consular representations/the ENIC-NARIC center for the documents to be issued.

Admission to the Doctoral Program for successful applicants who do not provide the required abovementioned documents by **November 8th 2022** will be "conditional" and the applicants will lose their right to continue the PhD Program if:

- they do not deliver the documents within 6 months from the starting date of the Program;

- upon verification, their title is not in compliance with the requirements of this call for selection.

In the case of loss of student status, the applicant must return the scholarship installments which might have been received.

4. Note that the enrolment must include the payment of stamp duty and the payment of the "provincial tax for the right to higher education" - TDS¹⁹ (except for exemption cases). At present, no fees are charged to PhD students to access courses and attend them, with the exception of the aforementioned annual provincial tax for the right to study (TDS).

5. Admitted applicants who do not enrol by the above-mentioned deadlines will lose their right to registration, and their places will be offered to the next applicants on the ranking.

6. If a successful applicant withdraws before the beginning of the PhD Program (**November 1, 2022**), the next applicant on the ranking will be offered the position, if entitled to it based on the eligibility assessment for reserved scholarships. The latter must submit his/her acceptance of the position

¹³ See: <u>https://www.esteri.it/it/servizi-consolari-e-visti/italiani-all-estero/traduzione-e-legalizzazione-documenti/</u>

¹⁴ See: <u>https://www.studiare-in-italia.it/studying/info-13.html</u>

¹⁵ Should the Declaration of Value not be available by the given deadline, the applicant has to produce evidence of the request to the Diplomatic mission. The applicant has to provide the original copy of the Declaration of Value as soon as it is available.

¹⁶ The University of Trento signed an agreement with the CIMEA Association about evaluating and verifying foreign titles through the online platform Diplome. Further information at: <u>https://international.unitn.it/incoming/diploma-verification</u>

within 4 days starting from the day after the day on which the communication from the PhD Office S&T is sent.

7. If a successful applicant withdraws or is excluded after the beginning of the PhD Program and during the first three months of the first year, the PhD Committee may decide to fill the vacancy with the next applicant on the ranking, considering the acquired eligibility for reserved scholarships.

8. At the end of the enrolment period, PhD students must communicate via e-mail (<u>dn_sst@unitn.it</u>) to the PhD Program Secretariat the exact date of their arrival at the institutional headquarter. PhD students who cannot be, for justified reasons, in the institutional headquarter at the beginning of the academic year, must submit adequate motivations and justifications by no later than **November 8**, **2022**.

In the case of a lack of communication and failure to arrive at the institutional headquarter listed in the table listed at the beginning of the call by the abovementioned deadline PhD students will be considered excluded from the PhD Program.

Art. 7 - SUPERNUMERARY POSITIONS

1. According to art. 18, par. 3 of the University Regulations for PhD Programs, and up to the number of positions indicated in art. 1 (not more than n. 1), supernumerary applicants may be admitted without a scholarship paid by the University, after passing the selection procedure, if they fall within one of the following categories:

a) shortlisted foreign applicants who are granted scholarships by other entities;

b) shortlisted applicants from countries with which a specific inter-governmental agreement has been signed, and with which an ad-hoc agreement with the University is then made, without the University of Trento being required to assume any financial obligations;

c) research fellows (Assegnisti di ricerca) whose contract lasts for a minimum of 24 months as from the starting date of the Program and researching a subject relevant to the PhD Program; such relevance has to be determined by the PhD Program Committee;

d) Italian civil servants or under Italian public law regime. Admission is subject to placement on leave under Art. 2 of the Law of 13.08.1984 no. 476 and subsequent amendments.

2. Short-listed applicants who wish to assert their requirements for supernumerary positions shall request for such admission by submitting appropriate documentation proving their status via e-mail to phd.office-st@unitn.it, within 8 days from the next day of the publication of ranking lists. Supernumerary admission is determined by the number of supernumerary positions listed in art. 1 following the order in the ranking.

3. After verification of the documents referred to in paragraph 2 of this article, applicants admitted to supernumerary positions will receive an email notification from the PhD Office S&T (<u>phd.office-st@unitn.it</u>) and must deliver their acceptance within the deadline specified in the email text itself.

4. Any applicant selected by special committees for admission related to specific international mobility programs involving the participating Universities and Research Institutions, may also be admitted to positions additional with respect to the quota specified at point 1 of this article.

Art. 8 - COMPATIBILITIES AND INCOMPATIBILITIES

Admission to the PhD Program entails an exclusive, full-time commitment.

The regimes of compatibilities and incompatibilities with attendance at PhD courses are governed by Article 24 of the <u>University Regulations on PhD Programs</u>, to which reference is made.

Art. 9 – INTELLECTUAL PROPERTY RIGHTS ON RESEARCH RESULTS AND PUBLICATIONS

1. Without prejudice to the Italian legislation on copyright (Legislative Decree no. 633/1941 and subsequent amendments), intellectual and industrial property rights on the results eventually achieved by the student, including, but not limited to, software, patentable industrial inventions, know-how, models, data and data collection, are regulated in accordance with applicable laws and University regulations (in particular, the Regulations on Intellectual Property Rights issued with Rectoral Decree no. 539 of 22/07/2020 and subsequent amendments) and, if necessary, according to the provisions in the individual agreements with universities, companies or other institutions involved¹⁷.

2. Before starting their research activities, the applicants who has been admitted must sign a declaration, validated by their academic supervisor, regarding their commitment to confidentiality about information, data and restricted documents they can have access to during their PhD activities. When the research activities are funded by private or public bodies other than the University, the admitted applicants must sign a declaration, validated by the academic supervisor, to allow the University to respect its duties about the intellectual property rights towards the funding body and eventually a Declaration of commitment with the funding body, when required.

ART. 10 - PROCESSING OF PERSONAL DATA

1. Pursuant to art. 13 of Regulation (EU) 2016/679 (General Data Protection Regulation), applicants, acting as data subjects, are advised that the University will process their personal data in the public interest only for purposes related to the present PhD selection procedure and to comply with law obligations

2. The data joint controllers are the University of Trento (e-mail: <u>ateneo@pec.unitn.it;</u> <u>ateneo@unitn.it</u>) all the affiliated Universities and Research Institutions that cooperate in the activation and operation of this PhD Program.

The Data Protection Officer is the University of Trento, that can be contacted at <u>rpd@unitn.it</u>. for information regarding personal data.

¹⁷ See: <u>https://www.unitn.it/en/ricerca/1767/protection-and-valorisation-of-intellectual-property</u>

3. The joint controllers process personal data for reasons of substantial public interest (according to art. 6, comma 1, letter e) and art. 9, paragraph 2, letter g) of the GDPR).

4. The provision of personal data is mandatory to participate in the selection procedures and failure to provide them results in the impossibility to take part in the call.

5. Personal data are processed wholly or partly in paper forms and/or by automated means by the joint controllers' personnel, who is authorized to data treatment according to their tasks and in respect of confidentiality obligations.

6. Personal data can be disclosed, to the inner divisions of the associated Universities and affiliated research institutions as well as to other third parties (public and private, e.g. MIUR, ANVUR) in order to correctly fulfill the above-mentioned purposes, within academic relationships, in performance of law, regulations and contract obligations, or in compliance with a provision of the Authority of Public Security and/or the Judicial Authorities.

7. Personal data will be stored as long as necessary to fulfill the above mentioned procedure and anyway for all the time required to comply with legal obligations and/or regulations on the matter.

8. Data subjects have the right to exercise at any time at the above-mentioned contacts the rights set forth in Articles 15 et seq. of the GDPR, and in particular the right of access to his/her own personal data, right to rectification, right to erasure ('right to be forgotten'), right to restriction of processing and the right to object to processing.

This is without prejudice to the right to lodge a complaint with the Supervisory Authority in accordance with art. 77 of GDPR.

Art. 11 - REFERRAL RULES

1. For matters not explicitly mentioned in the present call, refer to Law no. 398 of 30.11.1989, art. 4 of Law no. 210 of 3.07.1998 as amended by art.19, par. 1, of the Law no. 240 of 30.12.2010, to Ministerial Decree no. 226 of 14.12.2022 and to the University Regulations for Phd Programs issued by Rector's Decree no. 250 of 11.03.2022, to the Code of Ethics of the University of Trento, to the Students' Honour Code, to the Internal Regulations in force of the PhD Programs, and to the other relevant provisions contained in the current legislation.

2. This call, accompanied by its translation into English, is published on the University website, on the website of the Italian Ministry of Education and on Euraxess. Any changes or additions to the call will be made available on the <u>selection website</u> specified in art. 1.

On behalf of The Rector TThe Head of Education and Student Services *dott. Paolo Zanei*