CALL FOR APPLICATIONS

Admission to the PhD Programme in
Space Science and Technology
39th Cycle
ACADEMIC YEAR 2023/2024

Deadline       July 6th 2023

N.B. Please note that only the Italian version of the present call issued with Rector’s Decree no. 440 of 07.06.2023 is legally binding; the English version is provided for information only.
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Art. 1 – Subject of the Call

The University of Trento opens the call for positions for the 39th Cycle (Academic Year 2023/2024) of the PhD Programme in “Space Science and Technology”

Deadline for application: July 6th, 2023, hrs. 4pm CEST (Italian time, GMT +2, all the times indicated in this Call are to be meant as Italian time)

Positions: no. 55
Scholarships: n. 53 (on reserved topics)
Positions without scholarship: no. 2
Supernumerary positions without scholarship: no. 2 (with reference to art. 8)

The number of positions with scholarships available for selection is distributed as follows:

<table>
<thead>
<tr>
<th>SUMMARY OF AVAILABLE SCHOLARSHIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRICULUM 1 – OBSERVATION OF THE UNIVERSE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNDING INSTITUTION</th>
<th>NO. OF POSITIONS</th>
<th>OPERATIONAL SITE</th>
<th>NRRP COMPONENT</th>
<th>SCHOLARSHIP SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Brescia</td>
<td>1</td>
<td>Brescia</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1A - Study of matter-antimatter gravitational interaction at the ALPHA experiment at CERN - E66E23000110001</td>
</tr>
<tr>
<td>Scuola Internazionale Superiore di Studi Avanzati - SISSA</td>
<td>1</td>
<td>Trieste</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1B - Data Analysis &amp; Exploitation for Operating Satellite Missions in Astrophysics, Astroparticle &amp; Cosmology - E66E23000110001</td>
</tr>
<tr>
<td>Institute of Advanced University Education–IUSS</td>
<td>1</td>
<td>Pavia</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1C - Multi-wavelength observations of Galactic and extragalactic compact objects and transients - E66E23000110001</td>
</tr>
<tr>
<td>University of Milano &quot;Bicocca&quot;</td>
<td>1</td>
<td>Milan</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1D - Space-based observations, experiments and modelling for the characterization of the physical properties of cosmic structures, gravitational wave sources, astro-particles and cosmic backgrounds - E66E23000110001</td>
</tr>
<tr>
<td>SUMMARY OF AVAILABLE SCHOLARSHIPS</td>
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<tr>
<td><strong>Gran Sasso Science Institute - GSSI</strong></td>
<td>1</td>
<td>L’Aquila</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1E - Theoretical and phenomenological research in UHECRs - E66E23000110001</td>
</tr>
<tr>
<td><strong>National Institute for Astrophysics - INAF</strong></td>
<td>1</td>
<td>National Institute for Astrophysics - INAF - various locations of the candidate's choice as proposed on the website <a href="https://sites.google.com/view/phd-inaf">https://sites.google.com/view/phd-inaf</a></td>
<td>.</td>
<td>1F - Astrophysics of cosmic sources in the era of great observatories</td>
</tr>
<tr>
<td><strong>University of Pisa</strong></td>
<td>1</td>
<td>Pisa</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1G - Modeling and experimental study of astrophysical processes across the electromagnetic spectrum - E66E23000110001</td>
</tr>
<tr>
<td><strong>University of Florence</strong></td>
<td>1</td>
<td>Florence</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1H - Space based observations and experiments for the detection of cosmic sources and the characterization of their physical properties - E66E23000110001</td>
</tr>
<tr>
<td><strong>University of Milan</strong></td>
<td>1</td>
<td>Milan</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1I - Instrument development and calibration for high precision polarimetry of the Cosmic Microwave Background - E66E23000110001</td>
</tr>
<tr>
<td><strong>University of Siena</strong></td>
<td>1</td>
<td>Siena</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>1J - Multi-disciplinary applications of new space technologies: from the detection of cosmic radiation to geomorphology - E66E23000110001</td>
</tr>
<tr>
<td><strong>TOTAL NUMBER OF SCHOLARSHIPS</strong></td>
<td></td>
<td></td>
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<td><strong>10</strong></td>
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<table>
<thead>
<tr>
<th>CURRICULUM 2 – EARTH AND EARTH-SUN SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUNDING INSTITUTION</strong></td>
</tr>
<tr>
<td>University of Trento</td>
</tr>
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</table>
### SUMMARY OF AVAILABLE SCHOLARSHIPS

<table>
<thead>
<tr>
<th>FUNDING INSTITUTION</th>
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<th>OPERATIONAL SITE</th>
<th>NRRP COMPONENT</th>
<th>SCHOLARSHIP SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Trento</td>
<td>1</td>
<td>Trento</td>
<td>M4C1 inv. 3.4, Public Administration scholarships</td>
<td>2B - Evolution of the system GEOframe/OMS3/CSIP for the building of a Digital Twin of the Hydrology of river Po - E66E23000170001</td>
</tr>
<tr>
<td>University of L’Aquila</td>
<td>1</td>
<td>L’Aquila</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>2C - Solar Wind – Magnetosphere – Ionosphere coupling for different solar conditions - E66E23000110001</td>
</tr>
<tr>
<td>University of Calabria</td>
<td>1</td>
<td>Cosenza</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>2D - Space physics and Sun-Earth relations - E66E23000110001</td>
</tr>
<tr>
<td>Italian Space Agency - ASI</td>
<td>1</td>
<td>Cosenza</td>
<td></td>
<td>2E - Artificial intelligence algorithms for space data analysis in the heliosphere</td>
</tr>
<tr>
<td>University of Roma “Tor Vergata”</td>
<td>1</td>
<td>Rome</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>2F - Data analysis, instruments and modeling for the study of Space Weather events: from Gamma to near infrared - E66E23000110001</td>
</tr>
<tr>
<td>University of Roma “Tor Vergata”</td>
<td>1</td>
<td>Rome</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>2G - Space Weather studies by detection of high energy particles in the magnetosphere - E66E23000110001</td>
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</table>

**TOTAL NUMBER OF SCHOLARSHIPS**

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### CURRICULUM 3 – PLANETARY SCIENCES

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<tr>
<th>FUNDING INSTITUTION</th>
<th>NO. OF POSITIONS</th>
<th>OPERATIONAL SITE</th>
<th>M4C1 COMPONENT</th>
<th>SCHOLARSHIP SUBJECT</th>
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</thead>
<tbody>
<tr>
<td>University of Trento</td>
<td>1</td>
<td>Trento</td>
<td>M4C1 inv. 3.4, Digital and environmental transitions scholarships</td>
<td>3A - Machine learning methodologies for the analysis of remote sensing data acquired in planetary and/or Earth observation space missions - E66E23000180001</td>
</tr>
<tr>
<td>Institution</td>
<td>City</td>
<td>Project Details</td>
<td>Scholarship Type</td>
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<tr>
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</tr>
<tr>
<td>Fondazione Bruno Kessler - FBK</td>
<td>Trento</td>
<td>3B - Automatic analysis for planetary subsurface radar sounder data (project ASI JUICE-RIME-E – CUP F83C23000070005)</td>
<td>1</td>
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</tr>
<tr>
<td>Istituto Nazionale di Alta Matematica – “Francesco Severi”</td>
<td></td>
<td>3C - Theoretical and computational methods in Celestial Mechanics, Astrodynamics and Space Sciences</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>National Institute for Astrophysics - INAF</td>
<td>Naples</td>
<td>3D - The impact of dust in extraterrestrial habitats: development of space instrumentation and physical characterisation in space, in the laboratory and at similar terrestrial sites (e.g. the Sahara Desert)</td>
<td>1</td>
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</tr>
<tr>
<td>University of Trento</td>
<td>Trento</td>
<td>3E - Subsurface Radar Sounder on the EnVision mission for the analysis of the Venus subsurface</td>
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<tr>
<td>University of Pisa</td>
<td>Pisa</td>
<td>3F - Cataloguing space debris: from initial orbit determination to conjunction detection - E66E23000110001</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>University &quot;G. d’Annunzio&quot; Chieti - Pescara</td>
<td>Pescara</td>
<td>3G - Internal processes and structure of Ganymede in support of the JUICE mission</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>University &quot;G. d’Annunzio&quot; Chieti - Pescara</td>
<td>Pescara</td>
<td>3H - Planetary geology, exploration and space operations on Mars and the Moon - E66E23000110001</td>
<td>1</td>
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</tr>
<tr>
<td>University of Florence</td>
<td>Prato</td>
<td>3I - Scientific and technological challenge for the Italian curation facility - E66E23000110001</td>
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</tr>
<tr>
<td>Italian Space Agency - ASI</td>
<td>Florence</td>
<td>3J - Unveiling Mars through the investigation of meteorites and terrestrial analogues</td>
<td>1</td>
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<tr>
<td>Italian Space Agency - ASI</td>
<td>Florence</td>
<td>3K - Looking for life: Martian biogenic minerals</td>
<td>1</td>
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</tbody>
</table>
### SUMMARY OF AVAILABLE SCHOLARSHIPS

**TOTAL NUMBER OF SCHOLARSHIPS**

| 11 |

### CURRICULUM 4 – ASTROBIOLOGY, LIFE SCIENCES AND SPACE MEDICINE

<table>
<thead>
<tr>
<th>FUNDING INSTITUTION</th>
<th>NO. OF POSITIONS</th>
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<th>NRRP COMPONENT</th>
<th>SCHOLARSHIP SUBJECT</th>
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</thead>
<tbody>
<tr>
<td>University of Trento</td>
<td>1</td>
<td>Trento</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>4A - &quot;Study of the physico-chemical processes of formation and destruction of molecular species from reactions of energetic ions and/or in electrical discharges&quot; - E66E23000110001</td>
</tr>
<tr>
<td>University of Turin</td>
<td>1</td>
<td>Turin</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>4B - Investigating the role of the vestibular system in human neurocognitive response to space environment - E66E23000110001</td>
</tr>
<tr>
<td>University of Pisa</td>
<td>1</td>
<td>Pisa</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>4C - Modifiability of Interoceptive accuracy and sensitivity by mental training - E66E23000110001</td>
</tr>
<tr>
<td>University of Rome &quot;Tor Vergata&quot;</td>
<td>1</td>
<td>Rome</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>4D - Genomic signatures of cyanobacterial endurance under space conditions - E66E23000110001</td>
</tr>
<tr>
<td>University of Rome &quot;Tor Vergata&quot;</td>
<td>1</td>
<td>Rome</td>
<td>M4C1 inv. 4.1, PNRR research</td>
<td>4E - Space Biomedicine and BioEngineering for Future Human Space Exploration - E66E23000110001</td>
</tr>
</tbody>
</table>

**TOTAL NUMBER OF SCHOLARSHIPS**

| 5 |

### CURRICULUM 5 – SPACE SENSORS AND INSTRUMENTATION
<table>
<thead>
<tr>
<th>FUNDING INSTITUTION</th>
<th>NO. OF POSITIONS</th>
<th>OPERATIONAL SITE</th>
<th>NRRP COMPONENT</th>
<th>SCHOLARSHIP SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Trento</td>
<td>1</td>
<td>Trento</td>
<td>M4C1 – inv 4.1, Public Administration scholarships</td>
<td>5A - Modular Antenna Systems for Efficient Long-Range Wireless Power Transmission - E66E23000170001</td>
</tr>
<tr>
<td>National Institute for Nuclear Physics - INFN</td>
<td>1</td>
<td>INFN sites Bari – Rome Tor Vergata</td>
<td>-</td>
<td>5B - Design and prototype characterization of innovative high energy particle detectors for space application</td>
</tr>
<tr>
<td>National Inter-University Consortium for Telecommunications - CNIT</td>
<td>1</td>
<td>Pisa</td>
<td>-</td>
<td>5C - Integrated Photonics for space</td>
</tr>
<tr>
<td>University of Ferrara</td>
<td>1</td>
<td>Ferrara</td>
<td>M4C1 inv 4.1, PNRR research</td>
<td>5D - Development of technologies for the use of oriented crystals for observations of astrophysical interest - E66E23000110001</td>
</tr>
<tr>
<td>University of Trieste</td>
<td>1</td>
<td>Trieste</td>
<td>M4C1 inv 4.1, PNRR research</td>
<td>5E - X-ray &amp; gamma-ray spectrometer for two space applications: high energy cosmic transients and planetary surfaces - E66E23000110001</td>
</tr>
<tr>
<td>RF MICROTECH s.r.l.</td>
<td>1</td>
<td>Perugia/Trento</td>
<td>M4C2 inv 3.3, Innovative PhDs</td>
<td>5F - Development of reconfigurable and intelligent RF active components and systems for space applications - E66E23000110001</td>
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</table>

**TOTAL NUMBER OF SCHOLARSHIPS** 6

**CURRICULUM 6 – ENGINEERING AND SATELLITE PLATFORM TECHNOLOGIES**

<table>
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<tr>
<th>FUNDING INSTITUTION</th>
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<th>NRRP COMPONENT</th>
<th>SCHOLARSHIP SUBJECT</th>
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<tbody>
<tr>
<td>University of Trento</td>
<td>1</td>
<td>Trento</td>
<td>M4C1 inv 4.1, PNRR research</td>
<td>6A - Instruments and mechatronics systems for space applications - E66E23000110001</td>
</tr>
<tr>
<td>Institution</td>
<td>City</td>
<td>Program Description</td>
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</tr>
<tr>
<td>Fondazione Bruno Kessler - FBK</td>
<td>Trento</td>
<td>6B - Self-antifrosting microstructured surfaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fondazione Bruno Kessler - FBK</td>
<td>Trento</td>
<td>6C - Model-based system-software engineering and formal methods for space systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Pisa</td>
<td>Pisa</td>
<td>6D - Technology challenges for &quot;new-space&quot; and &quot;near-space&quot; missions - E66E23000110001</td>
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<td></td>
</tr>
<tr>
<td>Politecnico di Torino</td>
<td>Turin</td>
<td>6E - Advanced models for the design and characterization of deployable antennas - E66E23000110001</td>
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</tr>
<tr>
<td>Sant'Anna School of Advances studies</td>
<td>Pisa</td>
<td>6F - Optical fiber sensor systems for spacecraft propulsion monitoring - E66E23000110001</td>
<td></td>
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<tr>
<td>University of Palermo</td>
<td>Palermo</td>
<td>6G - Vacuum microwave active devices for observation and detection of objects in the space</td>
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</tr>
<tr>
<td>University of Trieste</td>
<td>Trieste</td>
<td>6H - Active and reconfigurable antenna array system development for SATCOM applications - E66E23000110001</td>
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<td></td>
</tr>
<tr>
<td>University of Padua</td>
<td>Padua</td>
<td>6I - Green technologies for a clean and sustainable orbital environment around Earth - E66E23000110001</td>
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</tr>
<tr>
<td>Qascom s.r.l</td>
<td>Bassano del Grappa / Trento</td>
<td>6J - Navigation techniques for space applications - E66E23000110001</td>
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</tr>
<tr>
<td>Nurjan Technologies s.r.l.</td>
<td>Cagliari</td>
<td>6K - Geometric Deep Learning for rapid prototyping of stealth drones - E66E23000110001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL NUMBER OF SCHOLARSHIPS** | **11**
The study path is structured in 7 curricula. Candidates may express interest in scholarships on reserved topics, conditional on the performance of a specific research topic, carried out at the operational site indicated in the table above, for which specific skills are required. The suitability of the applicant(s) will be assessed during the interview. Applicants interested in one or more scholarships must therefore carefully check on the application website the topic and the required skills, and, if the scholarship entail the acceptance of confidentiality commitment and/or transfer of intellectual property rights.

The research projects related to the individual scholarship referred to in the previous paragraph must comply with the following requirements set forth by the NRRP (PNRR in Italian) funding:

A. be coherent with the EU Regulations 2021/241 goals and purposes, with the NRRP general strategy and the specific NRRP mission;

B. be focused on achieving the results possibly set by the NRRP targets and milestones;

C. be compliant with the principle of "do not significant harm" (DNSH) according to art. 17 of the EU Regulations 2020/852 and with the technical directions given by the European Commission (European Commission Notice 2021/C58/01);

D. be suitable to deal with and to fill the gap of gender inequality;

E. support the participation of women and young people in the management of the NRRP, also according to the Legislative Decree of May 31, 2021, no. 77 (so called Decreto Semplificazioni), as modified by Conversion Law of July 28, 2021, no. 108.

<table>
<thead>
<tr>
<th>FUNDING INSTITUTION</th>
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<th>OPERATIONAL SITE</th>
<th>NRRP COMPONENT</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Institute of Advanced University Education – IUSS</td>
<td>1</td>
<td>Pavia</td>
<td>M4C1 – inv 4.1 - Public Administration scholarships</td>
<td>7A - Space economy and governance, regulations and resources for the management of Earth Observation - E66E23000170001</td>
</tr>
<tr>
<td>Sant'Anna School of Advances studies</td>
<td>1</td>
<td>Pisa</td>
<td>M4C1 – inv 4.1 - Cultural heritage scholarships</td>
<td>7B - Law perspectives for sustainability in space science, technology and economy - E66E23000190001</td>
</tr>
<tr>
<td>University of Bari &quot;Aldo Moro&quot;</td>
<td>1</td>
<td>Bari</td>
<td>-</td>
<td>7C - Technologies and methodologies for Earth observation and policies of inclusion, competitiveness, and socio-economic and environmental resilience</td>
</tr>
<tr>
<td>Positions without scholarship</td>
<td>2</td>
<td>Padua</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

**TOTAL NUMBER OF SCHOLARSHIPS/POSITIONS**

5

**SUPERNUMERARY POSITIONS (SEE ART. 8)**

2
Positions with scholarships or covered by any other forms of financial support may be increased as a result of funding becoming available after the issue of this notice and before the evaluation of qualifications. Notice of any such increase will be given solely on the application website.

Additional positions: 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 application website, conceivably modifying the order of preferences previously indicated.

Moreover, applicants selected by special committees may also be admitted to the 39th Cycle, following a decision of a dedicated committee belonging to specific international mobility programmes in which the universities and research institutions that are operational sites of the PhD programme participate.

- Duration: **three years**
- Start of the academic Year: **November 1st, 2023**
- Official language: **English**
- Application Website: [National PhD application in Space Science and Technology](#)
- PhD Program Coordinator: Prof. Roberto Battiston – roberto.battiston@unitn.it
- Rights and duties of PhD students
- Info about PhD scholarships
- Scientific and disciplinary fields

Further obligations under Ministerial Decree No. 117 and No. 118 of 02.03.2023:

According to the Ministerial Decree, the acceptance of the scholarships covered by this call implies:

- periods of study and research in companies or research centres or in public administrations (including museums, institutes of the Ministry of Culture, archives, and libraries) from a minimum of six (6) months to a maximum of twelve (12) months and periods of study and research abroad from a minimum of six (6) months to a maximum of eighteen (18) months as follows:

<table>
<thead>
<tr>
<th>Mobility abroad</th>
<th>Periods in companies/research centres/public administrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRRP scholarships</td>
<td>Compulsory (min. 6 - max 12 months)</td>
</tr>
<tr>
<td>Public Administration scholarships</td>
<td>Compulsory (min. 6 - max 12 months)</td>
</tr>
<tr>
<td>Cultural heritage scholarships</td>
<td>Compulsory (min. 6 - max 12 months)</td>
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</tbody>
</table>
Digital and environmental transitions scholarships

<table>
<thead>
<tr>
<th>Compulsory</th>
<th>Compulsory</th>
</tr>
</thead>
<tbody>
<tr>
<td>(min. 6 - max 12 months)</td>
<td>At companies or research centres (min. 6 - max. 12 months)</td>
</tr>
</tbody>
</table>

Innovative PhD Programmes Scholarships

<table>
<thead>
<tr>
<th>Compulsory</th>
<th>Compulsory</th>
</tr>
</thead>
<tbody>
<tr>
<td>(min. 6 - max 12 months)</td>
<td>At companies or research centres (min. 6 - max. 18 months)</td>
</tr>
</tbody>
</table>

- the presentation, every six months, of a report indicating the temporal commitment, structured in months at the company (or at research centres or public administrations), at headquarters and abroad, and a summary of the main activities performed; the submission will be made via a special MUR online platform and using the forms provided therein.

The candidate is fully aware, right from the moment of application, that the scholarship awarded for research projects funded by NRRP may be revoked under the following circumstances:

- carrying out of the PhD programme in a way that differs from the project accepted for funding, when the necessary approval by the MUR has not been previously requested and subsequently granted.
- failure to complete the study and research periods in companies or research centres or public administrations and abroad as outlined in the table provided above.

Important:

a) The dates of recruitment and all results (intermediate and final), any automatic exclusion from the selection for incomplete applications (see Art. 3 below) and exclusion due to a foreign title not recognised as suitable (see Art. 2 below), will be published on the application website with reference only to the application ID, of which it is recommended to keep note. Such publishing counts as official notification for all intents and purposes of the law and no personal communications will be made.

b) Any notices regarding the application will be sent by email to the personal email address associated with the account entered in the system when the application is closed. For candidates who have an active or recently concluded academic career at the University of Trento, please check the correctness of such personal email address at the link: Account Data Manager. Should it become necessary to change the personal contact after the application has been closed, it is advisable to also send a communication to the Division for PhD and Higher Education Course Support - Polo Collina (phd.office-st@unitn.it).

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 - IUSS Pavia
3. Politecnico di Torino - POLITO
4. Scuola Internazionale Superiore di Studi Avanzati - SISSA Trieste
5. Sant’Anna School of Advanced Studies - SSSA
6. University of Bari “Aldo Moro” - UNIBA
7. University of Brescia - UNIBS
8. University of Cagliari - UNICA
9. University of Calabria - UNICAL
10. University of Chieti-Pescara “G. D’Annunzio” - UNICH
11. University of Ferrara - UNIFE
12. University of Firenze - UNIFI
13. University of L’Aquila - UNIVAQ
14. University of Milano “Bicocca” - UNIMB
15. University of Milano “La Statale” - UNIMI
16. University of Padova - UNIPD
17. University of Palermo - UNIPA
18. University of Pisa - UNIPI
19. University of Roma Tor Vergata - UNITOV
20. University of Siena - UNISI
21. University of Torino - UNITO
22. University of Trieste - UNITS

Research Institutions:
1. Italian Space Agency - ASI
2. National, Inter-University Consortium for Telecommunications - CNIT
3. Fondazione Bruno Kessler - FBK
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 M.D. November 3, 1999, no. 509, amended by M.D. October 22, 2004, no. 270;
   b) a university degree obtained at an Italian Institution belonging to the AFAM system (Alta Formazione Artistica e Musicale);
   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 Program.²

2. Applications are also accepted from students expected to obtain the necessary degree by October 31st, 2023. 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, 2023, 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 equivalent 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 obtained a Doctoral degree can apply for a second Doctoral Programme only if its main research topics and scientific-disciplinary fields differ from those of the applicant’s first Doctorate programme. Those who have already benefited from a doctoral scholarship in Italy, even if partially, and public employees on extraordinary paid leave cannot be assigned another doctoral scholarship³.

¹ The suitability of the foreign qualification is ascertained by the examining board in compliance with current legislation and international treaties or agreements on the recognition of qualifications for further studies.
² For more information see: [http://www.cimea.it/it/servizi/il-sistema-italiano-di-istruzione-superiore/qualifiche-del-sistema-universitario.aspx](http://www.cimea.it/it/servizi/il-sistema-italiano-di-istruzione-superiore/qualifiche-del-sistema-universitario.aspx)
³ CUN Opinion dated 20/03/2008 (Session no. 19 of 18/03/2008); MIUR Note dd 14/09/2010 no. 1746; Art. 6 co. 2 of Law no. 398 of 1989 “Regulations on university scholarships”.
1. The application must be completed and submitted by hrs. 16.00 CEST of July 6th, 2023, exclusively through the online system: PhD Programs Applications

Authentication to the registration procedure is possible through:

- **SPID or Electronic Identity Card (CIE):** those with an Italian fiscal code and an Italian identity document will necessarily have to authenticate themselves via CIE (more information is available [at this page](#)) or SPID, the Sistema Pubblico di Identità Digitale (Public Digital Identity System), which automatically certifies the person’s identity on UniTrento systems and sets up an account for them at @unitn.it.
  
  To request a SPID identity (useful for accessing various online services of the Public Administration), please consult the site [How to activate SPID](#);

- **University of Trento account:** those who do have a University of Trento account can access the application procedure with their existing username (name.surname@guest.unitn.it, or name.surname@unitn.it). Please follow the procedure password reset if you forgot your password. Further information on UniTrento username and password at [account@unitn.it](#).

- **a UniTrento "guest" temporary account:** only those who do not have an Italian fiscal code 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. Please follow the procedure [at this website](#).

2. To finalize the application a non-refundable application fee of € 15 is to be paid exclusively through PagoPA payment system according to the instructions given in the appropriate section of the online application (“Application Fee”). The online application can be saved and modified until the final submission, after which changes will no longer be possible.

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 e-mail notification has been received. There will be no liability with the University in the event that an application is not submitted correctly.

4. Applications that are incomplete in their completion and/or lacking in compulsory attachments, irregular or missing payment of the participation fee and/or that have not been sent following the procedures indicated in this article will not be valid for participation in the competition and will therefore be excluded automatically.

5. If the qualification produced does not comply with the requirements set out in Art. 2 or the statements made in the application are not true, the University shall, at any time during the procedure, even after enrolment and commencement of the PhD course, order exclusion from the selection procedure or the PhD.

6. When filling in the online application, it is mandatory to choose one up to a maximum of two curricula. A Statement of Purpose (see 9.E below) explaining in detail the reasons for the choice and a Research Proposal (see 9.F 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).

7. 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.

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4 Applicants are advised to register well in advance of the deadline. The issue of credentials may require up to three working days.

5 Further information about PagoPA service at: [PagoPA](#)
8. 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.

9. MANDATORY ATTACHMENTS

(Failure to upload one or more mandatory attachments will result in automatic exclusion from the selection)\(^6\):

A. Identifying document (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, expiry date and signature;

B. Academic degree for admission to the PhD Programme:
   a. Italian qualification: already obtained/to be obtained: a self-declaration, (by using the form “Declaration substituting Degree Certificate”), in accordance with Presidential Decree art. 46 no. 445 of 28.12.2000 and subsequent amendments, declaring the possession of a degree, “Classe di Laurea”, issuing University, award date and final grade (if already obtained) possible award date (if not), examinations taken, dates of successful passing, grades and credits awarded.
      Graduates from the University of Trento may only declare the date of award OR foreseen date of award; other information can be collected ex officio;
   b. foreign qualification
      ■ already obtained:
         - a certificate attesting to 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 relevant grade;
         - a list of examinations taken to obtain the qualification to access a PhD Programme (academic transcript of records of the Master's degree) with relevant 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 copy of the Bachelor’s degree and the list of examinations taken to obtain that degree (academic transcript of records of the Bachelor’s degree) must also be attached.
      ■ to be obtained:
         - a certificate of enrolment in a course of study that allows admission to a PhD Programme (see art. 2 paragraph 1 letter c), with a list of the examinations successfully passed, credits (if provided for in the university system of the country that awarded the qualification) obtained in each examination, 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 copy of the Bachelor’s degree and the list of examinations taken to obtain that degree (academic transcript of records of the Bachelor's degree) must also be attached.

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

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\(^6\) A list of candidates (identified by ID) not admitted due to incomplete applications will be published on the application website.
C. Curriculum vitae et studiorum with a list of publications (in Italian or English, preferably in Europass format). The CV must detail all previous and, if applicable, current training (upper secondary education diploma, degree, Master's degree, PhD, higher education or specialisation courses, etc.), any research skills acquired or other elements relevant to the subject of the call (e.g. any publications, participation in conferences, etc.);

D. Abstract of the thesis in English (Magistrale or Master's degree), including: reasons for the dissertation, methods of investigation, and results obtained (max. 3,000 characters including spaces); those who have not yet graduated may attach a statement with the data and contact details of the supervisor;

E. Statement of Purpose in English (max 3,000 characters, including spaces): one for each chosen curriculum, in which the candidate specifies the motivation(s) that lead him/her to undertake the PhD and the reason for choosing the PhD program in Space Science and Technology (max 3,000 characters including spaces) - with the identification of the research project chosen from among those proposed, referencing to the skills and experience acquired. If two curricula have been selected, it is necessary to explain the reasons in detail and thus submit two different letters of motivation;

F. Research Proposal in English, one for each curriculum chosen, which 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.

10. OPTIONAL ATTACHMENTS:

G. 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. Once the relevant section of the application has been completed and saved by the applicant, the system automatically sends (within 24 hours) to the referee an e-mail with instructions and forwarding method. The letter can be completed according to the model provided to the referee. Applicants are recommended to make sure that their referees submit the letter of presentation by July 11th, 2023.

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 statement 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 (DS) drafted according to the form developed by the European Commission, the Council of Europe and UNESCO / CEPES;

7 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 can be found at the following websites:
alternatively

- Declaration of value\(^8\) 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 qualification\(^9\) issued by the ENIC-NARIC Center in Italy (CIMEA) that contains all the information necessary for the assessment of the qualification.

If the foreign academic qualification has already been recognized as equivalent\(^10\) to a second cycle Italian qualification by the competent academic bodies of Italian universities, the equivalence provision (Rectoral Decree).

11. If, once the application has been definitively closed, the applicant wishes to supplement his/her documentation, the additional material, accompanied by an explanatory note indicating the purpose of the material added/supplemented\(^11\), must be sent by the deadline of the call (the last date for acceptance of the application) to the email address ateneo@unitn.it (indicate in the subject line: "Application ID - Surname Name - National PhD in Space Science and Technology - 39th cycle - application supplement"). Integrations received by means other than the one described above will not be accepted.

12. 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 in to English or Italian signed by the applicant. The mandatory attachments required at points D, E, and F must be submitted in English by all applicants.

13. Candidates are admitted to the competition subject to verification that they meet the admission requirements set out in art. 2 of this call for applications. The University of Trento reserves the right to carry out checks in accordance with art. 71 et seq. of Presidential Decree no. 445 of 28 December 2000. At any time, even after enrolment and by reasoned decision, candidates may be disqualified or excluded for failure to meet the requirements of this call for applications.

15. In accordance with Law 104/92, art. 20, and Law 68/99, art. 16, comma 1, candidates with disabilities and/or suffering or affected by specific learning disorders (DSA) may, in relation to their impairment, make an explicit request in their application for admission to the competition, for any additional aids and time required to be able to take the test. In this regard, the data will be processed in compliance with current legislation on the processing of personal data as indicated in the relevant notice.

\[^8\] Further information about DoV and equivalence can be found at the following website: http://www.cimea.it/en/servizi/procedure-di-riconoscimento-dei-titoli/glossario.aspx.

\[^9\] 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 https://international.unitn.it/incoming/diploma-verification.


\[^11\] Please check that the file names are correct and appropriate.
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 is aimed at ascertaining, comparatively, the preparation and aptitude of the candidates to carry out research activities concerning the topics of the PhD Course and the scholarship on reserved topics in the chosen curricula. The selection consists of:
   - the assessment of the qualifications referred to in the previous Art. 3 of the present call
   - an interview, based on the criteria established in the following point 3 of the present Article.

3. The Commission will assess eligibility for topic-related scholarships for which the candidate has declared a preference, based on the documentation (research project) submitted in the application or subsequent supplement.

4. The commission can award a maximum of 100 points, as follows.
   a) all the mandatory applicant’s qualifications (max 60 pts), as listed previously in art. 3. Specifically, the committee will award the following scores:
      - evaluation of Curriculum Vitae and Course of study (points B, C e D of the mandatory attachments to the application): maximum 25 points.
      - evaluation of the Research Proposal and Statement of Purpose (referred to in points E and F 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. Interview and (if applicable) letter of reference (max 40 pts): the interview is conducted in English via internet and will focus on a discussion of the qualifications submitted (points B, C and D of the qualifications attached to the application), the Research Proposal and the Statement of Purpose (referred to in points E and F of the qualifications attached to the application). The presentation by the candidate 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 forward in the call for applications, the Commission may invite experts with proven expertise in the field to take part in the interview, including those belonging to the PhD teaching staff.

   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.

4. The selection will take place with the following schedule:
   - titles evaluation: starting from July 12th, 2023;
   - interviews: starting from July 26th, 2023
The results of the qualifications assessment will be published on the application website.\textsuperscript{12}

5. The interview will be conducted online through the use of audio-video connection tools which allow:
- the correct identification of the participants (through a webcam);
- the interview to be done in public form.

The interviews’ starting time will be set by the Commission.
The date and time at which the interviews will be held will be announced before they take place by means of a notice published on the application website.
The University declines all responsibility in case of technical difficulties that might prevent the interviews from being conducted correctly.
Any changes to the date of the interviews will be published exclusively on the same website.
In order to facilitate identification formalities, candidates must show the same identity document attached to the application form in order to undergo the interview.
Absence or failure to log in for any reason whatsoever, unavailability on the scheduled day or at the scheduled time, or failure to provide identification documents, are grounds for disqualification from the selection procedure.

\textbf{Art. 5 - RANKINGS}

1. Upon completion of the evaluation work, the Commission compiles for each curriculum an overall merit ranking.
2. The available positions are assigned to short-listed applicants according to:
   a. the position in the overall ranking list;
   b. for topic-related scholarships, following the order of priority and the order of the ranking list considering specific eligibility;
   c. in the event of a tie, the provisions of Article 6 below apply.
3. Failure to award the topic-related scholarships will imply a decrease in the number of positions offered in the call for applications.
4. 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 is the winner for a topic-related scholarship position on the curriculum indicated as secondary and accepts the scholarship, he/she will not be considered in the possible ranking for the curriculum indicated as prioritised as he/she is already on the other ranking list.
   In the event of eligibility on two rankings, the candidate may be offered a topic-related scholarship position on any of the two curricula, if available after the rankings have been short-listed, regardless of the priorities expressed. The candidate will be requested to accept the position and will be removed from the ranking list for the other curriculum.

\textsuperscript{12} The results will be linked to the application ID, through which each candidate can identify itself.
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. Renunciation of the scholarship awarded according to the single or priority curriculum ranking described in Art. 5 will result in the forfeiture of the right to admission.

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. Winners will have to confirm acceptance of the position, using the appropriate online procedure (Instructions available on the website)
   - within 8 days from the day following the day of the final ranking publication if awarded a scholarship position;
   - within 14 days from the day following the day of the final ranking publication if awarded a NON-scholarship position.

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: phd.office-st@unitn.it) by November 8th:

- 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 translations, legalised or with an “apostille” affixed (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 issued by the Italian diplomatic or consular representations country of origin of the institution that awarded the title;
- Statement of comparability of foreign university qualifications issued by the ENIC-NARIC Center (CIMEA in Italy) that contains all the information necessary for the assessment of the qualification. For the issuance of ENIC-NARIC certificates, the University of Trento has activated a partnership with CIMEA.

In case the Diploma Supplement, or the Declaration of Value, or the Statement of comparability are not available by the on the date indicated above, admitted applicants must deliver a document showing that they asked the University; or the Italian diplomatic or consular representations; or the ENIC-NARIC Center for the documents to be issued.

Admission to the Ph.D.Program for successful applicants who do not provide the required above-mentioned documents by November 8th, 2023 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;
- following verification, the title submitted does not comply with the criteria set out in Art. 2 of this call for applications.

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

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14 See https://www.studiare-in-italia.it/studying/info-13.html  
15 For evaluation and verification services for foreign qualifications using the Diploma platform, see: https://international.unitn.it/incoming/diploma-verification
4. The acceptance of the post must be accompanied by the stamp duty and the receipt of payment of the "Provincial Tax for the Right to University Studies" - TDS\textsuperscript{16}, except in the case of exemption. To date, there are no fees charged to PhD students for access to courses and attendance, with the exception of the aforementioned annual provincial tax for the right to study (TDS).

5. Failure to accept the position within the above-mentioned time limit shall be deemed a renunciation and the corresponding positions shall be made available to the next eligible candidates in the order of the corresponding ranking.

The procedure for subsequent places in the rankings will be concluded in line with the deadline set by the Ministry for the submission of the documentation required to verify required to assess admissibility for funding under Ministerial Decrees 117/2023 and 118/2023.

6. In the event of renunciation or exclusion of the eligible candidate before the beginning of the course (November 1\textsuperscript{st}, 2023), the place shall be taken by the next candidate or candidate according to the order of the relevant ranking and taking into account the specific eligibility. Said candidate or applicant must accept the position within 4 days starting from the day after the communication is sent by the PhD Course Support and Higher Education Division - Polo Collina.

7. In the event of renunciation or exclusion of an enrolled student, in the first term of the first year of the course, the Academic Board is entitled to assess the advisability of proceeding with a replacement following the order and any specific suitability of the relevant ranking.

8. Upon the closure of the enrolments, the doctoral candidates must inform by e-mail (dn_sst@unitn.it) the Secretariat of the Doctoral Course of the precise date of their arrival at their own operational site. In the event that for proven reasons he/she cannot be at his/her place of operational site for the beginning of the academic year, the PhD student must give timely and documented notice by e-mail (dn_sst@unitn.it) by November 8\textsuperscript{th}, 2023 at the latest, under penalty of exclusion from the Course. In the event of failure to notify or to arrive at the operational site by the above-mentioned dates, the PhD student shall be deemed to have withdrawn.

\textbf{Art. 7 - PHD COURSE ENROLMENT}

1. The enrolment in the PhD Course of those who have accepted the position, in the aforementioned modalities, will be automatically formalised as soon as the Ministry informs the University of the accreditation of the PhD Courses for the academic year 2023/2024 and of the NRRP scholarships awarded. In the event of non-confirmation of accreditation and should the ministerial funding not be granted, candidates and applicants who have accepted the position will be promptly notified by email and the Right to Study Fee (TDS) will be refunded.

2. To finalise the enrolment process, those who have obtained their qualifications abroad, upon arrival in Italy, are required to present the official documents (in original or certified copy), relating to the academic course, already scanned during the admission to the selection phase or during the position confirmation stage, to allow the appropriate assessment of the validity of the titles, also through the national information centres for the recognition of foreign titles belonging to the ENIC-NARIC network. Until then, candidates are admitted to the course subject to reservations and may be excluded if they do not meet the requirements.

\textsuperscript{16} The total amount of the TDS and stamp duty must be paid in one lump sum by following the instructions on the page: \url{https://www.unitn.it/en/ateneo/1931/education-tax-tds-and-stamp-duty}. On the same page you can check the cases of exemption from the TDS.
Art. 8 - SUPERNUMERARY ADMISSION

1. In accordance with Article 18, paragraph 3 of the University Regulation on PhDs and within the maximum limit of the positions indicated in Article 1 of this notice (no more than no. 2), candidates who fall within one of the following categories may be admitted or admitted in supernumerary, without a University scholarship, subject to their successful participation in the admission tests and within the limits of the quota indicated in the call for applications:

   a. foreign nationals, eligible and eligible in the general merit list, who are the recipients of scholarships of any kind granted;
   b. foreign nationals from countries with which there is a specific intergovernmental agreement followed by a specific convention with the University, without any compulsory financial charge for the latter;
   c. Holders of research grants on the date of commencement of the doctoral course, the duration of which is expected to last no less than twenty-four months, subject to verification of the congruity of the research topic with the doctoral programme by the Academic Board;
   d. public employees or those working under public law. Admission is subject to placement on leave or extraordinary leave, as per Article 2 of Law 476/1984 and subsequent amendments.

2. Those wishing to claim their eligibility for supernumerary admission must request it within 8 days of the publication of the ranking list by submitting suitable documentation proving their status by e-mail to phd.office-st@unitn.it. Supernumerary enrolment is arranged within the maximum limit of the positions indicated in Art. 1 according to the order of the relevant ranking list.

3. Upon verification of the documents referred to in paragraph 2 above, those admitted and those admitted in supernumerary numbers will receive an email from the Doctoral and Higher Education Courses Support Division - Polo Collina and must enrol by the deadline indicated in the text of the email.

4. Students selected by special committees for specific international programmes in which the University of Trento participates are also admitted on a supernumerary basis, on top of the quota indicated in Art. 1.

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 and, if necessary, according to the provisions in the individual agreements with universities, companies or other institutions involved.

2. Before starting their research activities, the admitted applicants must sign a declaration, validated by the academic supervisor, regarding their commitment to confidentiality about information, data and reserved documents they can learn about during their Ph.D. activities at and/or on behalf of the University of Trento. 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 - 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 University Regulations on PhD Programs, to which reference is made.

ART. 11 - PROCESSING OF PERSONAL DATA

Pursuant to art. 13 of Regulation (EU) 2016/679 (General Data Protection Regulation), the University of Trento intends to provide candidates for this selection (hereinafter referred to as ‘interested parties’) with the following information.

1. Data controller.
1.1 The Data controller is the University of Trento, via Calepina n. 14, 38122 Trento (TN); email: ateneo@pec.unitn.it; ateneo@unitn.it.
1.2 For the activation of the National PhD Course in "Space Science and Technology", cycle 38- The Data Controller has signed a special agreement with third party Entities pursuant to Article 3, paragraph 2 of Ministerial Decree of the Ministry of University and Research no. 226 of 14.12.2021. Some of these Entities, the list of which is available upon specific request of the interested party, are Co-Processors and will process personal data in accordance with this information notice, in agreement with the Controller, for the pursuit of the purposes necessary for the activation and operation of the Doctoral Course. Other entities that are not Joint Data Controllers shall process the data as autonomous Data Controllers.

2. Contact details of the Data Protection Officer
The Data Protection Officer (DPO) of the Controller whom you may contact for information concerning your personal data may be contacted at the following email address: rpd@unitn.it.
The contact details of the DPOs of the Data Controllers may be requested directly from the individual Data Controllers by writing to the appropriate contact point phd.office-st@unitn.it.

3. Purpose of the processing and legal basis
The Controller and the Joint Data Controllers process personal data in the context of the performance of their public interest tasks and, in particular, for the purposes of carrying out this selection procedure and fulfilling the related legal obligations (Art. 6(1)(e) and (c); Art. 9(2)(g) of the GDPR).

4. Nature of data provision
The provision of personal data is essential for participation in this procedure and failure to provide such data will make it impossible to take part. The provision of particular data relating to health (for candidates with disabilities) is optional, but failure to provide it will result in the impossibility of accessing the requested support tools.

5. Processing methods
Personal data are processed in hard copy, computerised and/or telematic format by staff authorised to process data in relation to the tasks and duties assigned and in compliance with the principles of lawfulness, correctness, transparency, appropriateness, relevance, non excessiveness and confidentiality (Art. 5(1) GDPR). No profiling or automated decisions are made.

6. Categories of recipients
In fulfilment of the obligations set out in the Agreement with Third Party Entities pursuant to Article 3, paragraph 2 of Ministerial Decree of the Ministry for Universities and Research no. 226 of 14.12.2021, the data will be shared between the Data Controller and the Joint Holders for the pursuit of the purposes indicated above and, also, communicated to Third Party Entities (not Joint Holders) which will process the data as autonomous data controllers.
Personal data may also be communicated, in addition to University staff, to other public and private entities for the pursuit of the purposes indicated above, including any financing entities in relation to the funded grants. Personal data may also be communicated to third parties in the event of the fulfilment of a legal obligation and/or an order by a judicial authority.

7. Transfer to non-EU countries
If, within the scope of the purposes indicated above, personal data are transferred to non-EU countries, the transfer will be carried out within the limits and under the conditions set out in articles 44 et seq. of the GDPR.

8. Period of data retention

Personal data shall be kept for the period necessary for the performance of this procedure and in any case for the time required to fulfill legal obligations. In any case, they shall be kept for the time established by current legislation and/or the University regulations on the management and storage of the documentation produced by the University in the performance of its institutional activities.

9. Rights of the interested parties

Data subjects may at any time exercise with the Data Controller the rights enshrined in Articles 15 et seq. of the GDPR and, in particular, access to their personal data, rectification, integration and, if the legal requirements are met, deletion, restriction as well as the right to object to processing; at the contacts indicated above.

In addition to this, without prejudice to the right of data subjects to exercise their rights as set out in Articles 15-22 with regard to all Data Controllers, the data subject may at any time forward their requests to exercise their rights also to the email address: phd.office-st@unitn.it.

Data subjects who believe that their data is being processed in breach of the GDPR have the right under Article 77 of the GDPR to lodge a complaint with the Data Protection Authority or to take appropriate legal action.

Art. 12 - REFERRAL RULES

1. For matters not explicitly mentioned in the present call, refer to Law no. 398 of 1989.11.30., art. 4 of Law no. 210 of 1998.07.03 as amended by art.19, par. 1, of the Law no. 240 of 2010.12.30., to Ministerial Decree no. 226 of 2021.12.14., to Ministerial Decree no. 352 of 2022.04.09 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 selection website specified in art. 1..

On behalf of

The Rector

The Head of Education and Student Services

dott. Paolo Zanei