



(ANNEX 1)

CALL FOR PHD POSITIONS - 35 CYCLE
July's session

PHD PROGRAMME IN PHYSICS

PhD Programme Coordinator	Prof. Paolo Gambino
Department	Physics
PhD Programme Length	3 years
PhD web site	http://dottorato.ph.unito.it/ http://dott-snti.campusnet.unito.it/do/home.pl/View?doc=indirizzi/fisica_e_astrofisica.htm
Course start date	November 1 st , 2019
Departments involved in PhD programme	Department of Physics

Positions offered¹	
n. 1 position with scholarship	of which: n. 1 funded by Agilent Technologies Italia SpA
n. 1 position without financial support	

CALL FOR POSITIONS

Admission procedure

Assessment of qualifications, research project and interview

Qualifications to be uploaded in the on-line application

¹ All additional scholarships and apprenticeship contracts (Legislative Decree no. 81/2015 art.45), which may become available after the publication of this Call, will be announced on the University websites <http://www.unito.it/ricerca/fare-ricerca-unito/dottorati-di-ricerca> and <http://en.unito.it/research/phd/phd-programmes> until Call's deadline.



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<ul style="list-style-type: none"> • Research project (max 6000 characters, space and bibliography included) written in English by the candidate choosing among those listed by the Doctorate • Abstract of Master Thesis • Max 2 Letters of reference (as specified in Art. 5 of this Call) • Publications (max 2) 	
Assessment criteria	maximum score 100 points
Assessment of qualifications:	Maximum score: 22 points
<p>Final grade of Laurea (Laurea Ciclo Unico/unique cycle degree) <i>or</i> Degree of Laurea Magistrale/2nd cycle (60%) and Degree of Laurea Triennale/1st cycle (40%)</p> <p>110 lode: ____ 10 punti 110: _____ 9 punti 106-109: ____ 8 punti 100-105: ____ 7 punti < 100: _____ 6 punti</p> <p>For candidates applying under condition: weighted average of examinations results obtained during the Laurea Magistrale/2nd cycle degree (60%, table below) and Laurea Triennale/1st cycle degree (40% table above), or weighted average of list of examination of Laurea a Ciclo unico (unique cycle degree)</p> <p>> 29/30: _____ 10 punti tra 28 e 29/30 _____ 8 punti tra 27 e 28/30 _____ 7 punti <27/30 _____ 6 punti</p>	maximum score 10 points
<p>Publications:</p> <p>1 point for each (maximum 2 publications will be evaluated)</p>	Maximum score 2 points
<p>Other qualifications</p> <p>Second/additional master degree: 1 point</p> <p>Italian specialising master degree (1st and 2nd level degree) if relevant: 1 point Any other relevant specialisation: 1 point</p>	maximum score 2 points



Maximum 2 recommendation letters by professors or qualified researchers	Maximum score 8 points
Research project	Maximum score 18 points
<i>Minimum score for admission to the interview</i>	<i>24 points</i>
Interview	Maximum score: 60 points
<i>Minimum score for qualifying</i>	<i>36 points</i>
Further information on the selection process The abstract of the Master Thesis , written in English, should include <u>no more than 800 characters</u> including spaces, and <u>very briefly</u> describe the purpose of the thesis, the methods used, and the results achieved, if any. The research project , written in English (max 6000 characters including spaces and bibliography), should belong to one of the research fields listed for the PhD program and should focus on the following points: state-of-the-art of the field; main goals of the project; proposed methodology. The interview will focus on the research project and the relevant physics. The examining board will evaluate the scientific quality of the project, its feasibility during the 3 years of PhD, its goals, its possible impact. Upon request, the oral interview can take place using Skype (candidates should then specify their Skype contact in the Application form). Working knowledge of English is mandatory.	

**Titoli progetti di ricerca
Dottorato di Ricerca in Fisica
Titles of research projects
PhD Programme in Physics**

1. Astrofisica sperimentale da Terra e dallo spazio / Ground- and space-based experimental astrophysics
2. Fisica dei plasmi astrofisici / Astrophysical plasmas
3. Elio fisica e corpi minori del sistema solare / Heliophysics and minor bodies of solar system
4. Esopianeti e planetologia / Extrasolar planets and planetology
5. Evoluzione stellare e Via Lattea / Stellar evolution and Milky Way
6. Galassie e cosmologia / Galaxies and cosmology
7. Onde gravitazionali / Gravitational waves
8. Ottica quantistica / Quantum optics



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9. Fisica del clima e dell'atmosfera / Climate and atmospheric physics
10. Dinamica dei fluidi geofisici e oceanografia fisica / Geophysical Fluid Dynamics and Physical Oceanography
11. Fisica dei neutroni / Neutron Physics
12. Fisica dei raggi cosmici / Cosmic rays
13. Fisica nucleare sperimentale / Experimental nuclear physics
14. Fisica sperimentale del quark-gluon plasma / Experimental quark-gluon plasma physics
15. Fisica sperimentale delle particelle elementari / Experimental high energy physics
16. Elettronica, microelettronica e nuove tecnologie per rivelatori di particelle / Design of electronics and microelectronics and new technologies for particle detectors
17. Fisica medica / Medical physics
18. Fisica dei beni culturali / Cultural heritage physics
19. Nuovi materiali e micro/nano-dispositivi innovativi / Novel materials and micro/nano-devices
20. Sistemi dinamici, turbolenza e onde nonlineari / Dynamical systems, turbulence and nonlinear waves
21. Modelli fisici per sistemi biologici / Physical modelling of biological systems
22. Teoria dei campi su reticolo e modelli integrabili / Lattice field theory and integrable models
23. Fisica teorica astroparticellare / Theoretical astroparticle physics
24. Teoria della stringa e supergravità / String theory and supergravity
25. Fisica teorica dei nuclei e del quark-gluon plasma / Nuclear theory and quark-gluon plasma physics
26. Fenomenologia delle particelle elementari / Phenomenology of elementary particles
27. Didattica e storia della fisica / Physics education and history of physics
28. Studio del funzionamento di Penning Trap per l'ultravuoto / Penning traps and ultra-high vacuum (referente scientifico Prof. Ermanno Vercellin) *(titolo di progetto abbinato alla borsa di studio finanziata da / research project linked to the PhD Scholarship funded by AGILENT Technologies Italia SpA)*