

"Annex 4" updated on 31st July 2018

(The updates and the corrections are highlighted in red colour)

(ANNEX 4)

CALL FOR PHD POSITIONS – 34 cycle

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-sat.campusnet.unito.it/do/home.pl |
| Course start date | 1 October 2018 |
| Departments involved in PhD programme | Department of Physics |

| Positions offered by the PhD Programme ¹ | |
|---|---------------------------------------|
| n. + 2 positions with scholarship, of which n. + | of which: |
| reserved to candidates with international | - 1 scholarship funded by the Physics |
| qualifications | Department (funding "Progetto |
| | Dipartimento di Eccellenza") |
| | - 1 scholarship funded by Vishay |
| | Semiconductor Italiana S.p.A. |
| | |
| | |

Titles of Research Projects / Research Fields

The list of research projects/research fields is available at the end of this Information Sheet. This list may be updated until the deadline of Call for Admission to PhD positions.

Entrance examinations

Schedule with information on dates and venues of entrance examinations will be published on the
websites:http://www.unito.it/ricerca/fare-ricerca-unito/dottorati-di-ricercahttp://en.unito.it/research/phd/phd-programmes starting from 6th September 2018

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 e <u>http://en.unito.it/research/phd/phd-programmes</u> until the call's deadline.



Application fee

Application fee is €50.00 for each application submitted. Candidates with international qualifications are exempted from paying the application fee.

Application fee deadline: 5th **September 2018 (mandatory deadline)**. Candidates who do not pay the application fee within the deadline will be excluded from the competition

Admission procedure

Assessment of qualifications, research project and interview

Qualifications to be uploaded in the on-line application

- Application form (duly signed and including identification document/passport)
- Candidates applying with international qualifications: submit on-line documentation as specified in art. 4 of this Call;
- Candidates applying under condition: Self-declaration (available on the websites of the University or alternatively as per Annex 2 of the call for applications) with degrees from the Bachelor's and Master's Degree with relative marks, CFU and weighted average. For candidates applying under condition of obtaining a second level degree within 31st October 2018, issued by a non- Italian university, please check also art. 5 of the Call for admission to PhD positions.
 - Master Thesis abstract
 - Research project (max 6000 characters, space and bibliography included) written in English by the candidate choosing among those listed by the Doctorate
 - Max 2 Letters of reference (as specified in art. 4 of this Call)
 - Publications (max. 2)

| Assessment criteria | maximum score 100 points |
|---|--------------------------|
| Assessment of qualifications: | Maximum score: 22 points |
| Final grade of Laurea (Laurea Ciclo Unico) <u>or</u> Degree of Laurea Magistrale (60%) and Degree of Laurea Triennale (40%) | maximum score 10 points |
| 110 cum laude: 10 points 110: 9 points 106-109: 8 points 100-105: 7 points < 100: 6 points | |
| For candidates applying under condition: weighted average of examinations results obtained during the Laurea Magistrale (60%, table below) and Laurea Triennale (40% table | |



| above), <u>or</u> weighted average of list of | |
|---|--------------------------|
| | |
| > 29/30: 10 points | |
| tra 27 e 28/30 7 points | |
| <27/30 6 points | |
| Publications: | Maximum score 2 points |
| 1 point for each (maximum 2 publications will | |
| be evaluated) | |
| Other qualifications | maximum score 2 points |
| Second/additional master degree: 1 point | |
| Italian specialising master 1 st and 2 nd level degree if relevant: 1 point | |
| Any other relevant specialition : 1 point | |
| Maximum 2 recommendation letters by | Maximum score 8 points |
| professors or qualified researchers | |
| Research project | Maximum score 18 points |
| Minimum score for admission to the interview | 24 points |
| Interview | Maximum score: 60 points |
| Minimum score for interview | 36 points |

Further information on the selection process

The **Master Thesis abstract**, 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), should focus on one of the research fields listed for the PhD program and should focus on the following points: a) state-of-the-art of the field; b) main goals of the project; c) 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.

Candidates may, on request and upon authorization of the Board, sustain the interview via Skype. (See art. 8 of the Call).



Working knowledge of English is mandatory

Titoli dei progetti di ricerca / Titles of research projects:

- 1. Studio della distribuzione di materia oscura nell'alone della Via Lattea con la futura missione spaziale Theia. / Investigation of the dark matter distribution in the Milky Way halo with the future space mission Theia. (*progetto/ research project by Dipartimento di Eccellenza tutor Luisa Ostorero*)
- 2. Studio di processi termici avanzati per l'attivazione di droganti da impiantazione ionica e di altri elementi agenti come "lifetime killer" in dispositivi a semiconduttore. /Investigation of advanced thermal processes for the activation of dopants from ionic implantation and other elements acting as lifetime killers in semiconductor devices. *(borsa finanziata da / scholarchip fundend by Vishay Semiconductor Italiana SpA, referente aziendale Carmelo Sanfilippo, tutor: Paolo Olivero, co-tutor: Ettore Vittone)*