

GRAN SASSO SCIENCE INSTITUTE PhD PROGRAMS – CALL FOR APPLICATIONS 2015

The Gran Sasso Science Institute (GSSI), based in l'Aquila, Italy, offers, in collaboration with

- *International School for Advanced Studies, Trieste* (www.sissa.it)
- *IMT Institute for Advanced Studies, Lucca* (www.imtlucca.it)
- *Scuola Superiore Sant'Anna di Pisa* (www.sssup.it)

post-graduate training to obtain “**Philosophiae Doctor**” (**Ph.D**) degrees in the following fields:

PhD Course	Partner University	Description	PhD program Coordinator	Places/ Scholarships
Astroparticle Physics	International School for Advanced Studies	The GSSI PhD degree in Physics is focused on Astroparticle Physics. The main objective of the curriculum is to provide students access keys with cultural and scientific instruments to participate in this research field, giving a particular attention to its phenomenological and experimental aspects.	Prof. Eugenio Coccia	10
Mathematics in Natural, Social and Life Sciences	International School for Advanced Studies	The PhD degree in Mathematics will guide graduate students to deal not only with the more traditional aspects of this discipline, such as Pure Mathematics, Partial Differential Equations and Mathematical Physics, but also with entirely new challenges, which require the development of the most appropriate tools to deal with the complexity, such as Stochastic Analysis and Computational Mathematics.	Prof. Pierangelo Marcati	10
Computer Science	IMT Lucca	The PhD program in Computer Science of the GSSI aims to provide students with the main results, theories, techniques and methodologies regarding algorithms, models, languages, software and services to cope successfully with the challenges of the present and future Information and Communication Technology.	Prof. Rocco De Nicola	10
Urban Studies	Scuola Superiore Sant'Anna of Pisa	The PhD in Urban Studies will focus on the study of the trajectories of long-term development of local systems and, in particular, the urban systems - cities, metropolitan areas and regions. The methodological perspective in research and teaching is trans-disciplinary: offering resources and an appropriate relational context.	Prof. Antonio Calafati	10



PhD degrees will be awarded by the partner university with the mention of the course of study completed at GSSI.

Activities and Duration

The PhD programs last three years.

Scholarships

GSSI awards scholarships for 3 years. **The yearly amount of the scholarship is of € 16.159,91** gross (an additional 50% on monthly basis may be awarded for research period aboard if approved by the GSSI).

Official language of the PhD Programs: English

Activities start on November 1st 2015.

Facilities and benefits

- All PhD students will have tuition fees waived;
- all PhD students will have free accommodation on GSSI facilities (a financial substitute of 350,00 Euros gross/month may be offered upon request);
- all PhD students will have free luncheon vouchers (2 per day, 7 days a week, except school closures, missions, other situations contemplated by the GSSI rules);
- all PhD students will be covered by insurance against any accident and/or injury that may occur while carrying out their PhD activities.

Requirements

English knowledge is compulsory. Applications are opened to candidates who meet the below requirements without regard to nationality, age, gender or religion:

Italian Degree	Foreign Degree	Graduating Applicants
“Laurea Magistrale” (or “Specialistica”) <i>or</i> Four or five years degree according to the previous rules of the Italian higher	Foreign degrees are considered and their eligibility is assessed by the Selection Committee. For admissions, the minimum duration of university studies is equivalent to four years (full time).	Applicants obtaining their degree by no later than October 31 2015 may apply (both Italian or foreign degree according to the previous description). Applicants will have to send a copy of their degree certificate at phd.secretariat@gssi.infn.it by November

education system (vecchio ordinamento)	If admitted, foreign degree holders are required to hand in a “Dichiarazione di valore”. This document is not required to apply (see below).	20 2015 (for Italian degrees a “self declaration” can also be accepted).
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Application

Applicants must fill out the **online application form** and attach the required documents by **April 15th 2015, 6 pm (Italian time zone)**. No other application method will be accepted.

Data and documents entered into the application form are the sole responsibility of the applicant. In the events of false declaration(s), the applicant will not be allowed to enroll/will be expelled in/from the PhD program.

In order to successfully submit the application form, applicants must insert all the data/information and upload the attachments as listed below. We strongly recommend applicants to review the inserted information and uploaded attachments before submitting the application. **No changes are allowed to submitted data.** Erroneous data and/or attachments will be evaluated as they are submitted.

Please note that applicants are responsible for ensuring that their completed application **arrives on time**. We strongly suggest that applicants submit their application well in advance of the deadline in order to avoid last-minute congestion in the online application procedure.

INFORMATION AND DATA TO FILL N THE ONLINE FORM		
The PhD applicants are applying to: - Astroparticle Physics - Mathematics in Natural, Social and Life Sciences - Computer Science - Urban Studies	Compulsory (on pain of exclusion from the competition)	It is possible to apply for more than one curriculum, in this case the applicant should repeat the application procedure for each curriculum chosen.
Personal data	Compulsory (on pain of exclusion from the competition)	

Degree	Compulsory (on pain of exclusion from the competition)	Applicants must fill out the information referred to the final degree required for admission (as reported in the above table).
Reference Letters	Optional	Applicants can provide the names and contact information up to two referees. Referees should submit reference letters in English or Italian through the online application system by April 22, 2015 (the information provided by the applicants in the online form will be used to send the referees and email with a link to a page where they can upload the reference letter).
Interview	Compulsory (on pain of exclusion from the competition)	Applicants must specify their preference for the interview: <ul style="list-style-type: none"> - via videoconference (skype call) - in l'Aquila (at the applicants expenses) Please note that the Selection Committee prefers no option, they are equivalent.
Disabilities	Optional	Applicants with disabilities needing special assistance must specify it in the online form.

ATTACHMENTS TO THE ONLINE FORM, COMMON TO ALL PHD PROGRAMS		
Identification Document	Compulsory (on pain of exclusion from the competition)	<u>Signed</u> and <u>dated</u> photocopy of a valid ID document. ID document is an official public document with the following characteristics: personal information, stamped identity picture, serial number, place and date of release. For non Italian documents, English translation on the original ID is required. The photocopy must contain all the pages reporting the above mentioned information, all pages must be signed and dated. For foreign applicants the passport is highly recommended.
Curriculum Vitae et Studiorum (CV)	Compulsory (on pain of exclusion from the competition)	In English or Italian, the CV must indicate the university degree(s) held by the applicant, eventual professional and research activity experience and publications, if any.
Degree certificate	Compulsory	Certificate of the Degree required for admission (as above mentioned): <ul style="list-style-type: none"> - EU citizens or NON EU citizen residing in Italy: a copy of the certificate or a self-

		<p>declaration declaring the possession of a degree indicating: conferral date, issuing University and final grade;</p> <ul style="list-style-type: none"> - other applicants: certificate declaring the possession of a degree indicating: conferral date, issuing University and final grade. <p>For applicants who expect to complete their degree by October 31 2015: certificate or self-declaration (only for EU citizens and NON EU citizens residing in Italy) indicating the single examinations taken and grades obtained. Please note that it is compulsory to hand in or send the final degree certificate by November 20 2015 as above mentioned.</p> <p>In BOTH cases, if the official document released by the university is not available in Italian or English, candidates should <u>also attach a translation of the document under their responsibility</u>.</p>
Academic Transcripts or Diploma supplement	Compulsory	<p>Academic transcript: an official document released by the university detailing the courses/classes taken or subjects studies and related grades.</p> <p>Alternatively, applicants may attach the Diploma Supplement as defined by the European Commission.</p>

SPECIFIC ADDITIONAL COMPULSORY REQUIREMENTS TO UPLOAD TO THE ONLINE FORM

PHD PROGRAM	DESCRIPTION
Astroparticle Physics	No additional specific requirement.

Mathematics in Natural, Social and Life Sciences	<p>Applicant are required to upload also a file containing a synthetic report of the core courses followed on the following topics:</p> <ol style="list-style-type: none"> 1- Partial Differential Equations 2- Probability/stochastic processes 3- Functional Analysis 4- Numerical Analysis 5- Physics/continuum mechanics/fluid dynamics <p>For each course in this area, students should provide a short syllabus (no more than 10 lines) main textbooks, name of the instructors and possibly the link to the course home page.</p>
Computer Science	<p>Motivational letter describing expertise and general research interests together with future plans and reasons for having chosen GSSI for PhD studies.</p>
Urban Studies	<ul style="list-style-type: none"> - Master thesis in the original language (to be uploaded in a single pdf file – maximum dimension: 25 Mb) and a summary of the Master thesis in English (between 1.800 and 2.000 words in length). - Curriculum Vitae in English or Italian. The use of the Europass Curriculum Vitae template is required (the template can be downloaded at: http://europass.cedefop.europa.eu/it/documents/curriculum-vitae/templates- instructions).

Selection Procedure

Applicants are evaluated by the *Selection Committee* of the Program they applied for on the basis of their prior performance and professional promise, as evidenced by their academic record and any other pertinent data they submit.

Candidates will be evaluated on the basis of their academic background, skills and scientific value with reference to the subjects of the interdisciplinary program, and their general aptitudes to research. The *Selection Committee* will also assess the relevance of any publication, the suitability of the candidates CV, the reference letters and any additional special qualifications, educational activities and/or participation in research groups or projects.

The selection procedure will be carried out in two phases:

- **Assessment of all application admitted through the online procedure:** with the publication on the GSSI web site of the shortlist of the candidates admitted to the interview.

- **Interview:** once short-listed, applicants will be required to participate in a comprehensive interview in English in order to assess their aptitude for research in the track/curricula for which they have applied, as well as their English proficiency.

Dates of the shortlist publication and interviews in the different PhD degrees:

PhD Program	Publication of the shortlisted candidates	Interviews
Astroparticle Physics	April 27, 2015	From April 28 to May 23, 2015
Mathematics in Natural, Social and Life Sciences	April 27, 2015	From April 28 to May 23, 2015
Computer Science	April 27, 2015	From April 28 to May 23, 2015
Urban Studies	April 27, 2015	From April 28 to May 23, 2015

Admission

General ranking list and evaluation results will be published on the GSSI web site. The list will indicate the names of the applicants who have been admitted to the different PhD Programs.

In the event of forfeiture or exclusion of a candidate within 45 days from the date of beginning of the program, she/he shall be replaced by the next suitable candidate according to the ranking.

Enrollment

Once admitted to the PhD Program, candidates who wish to enroll must download the enrollment form from the GSSI website, fill it in, and submit it in person, by mail to GSSI, Viale F. Crispi n. 7, 67100 L'Aquila – Italy or by email phd.secretariat@gssi.infn.it within 10 days from the notification of the results on the GSSI website. All documents required for the enrolment have to be enclosed; otherwise, the request will be rejected.

Admitted applicants who do not send the enrollment form within the deadline will automatically forfeit their place in the program.

In the event that any of the documents downloaded during the application procedure do not correspond those submitted during enrollment due to deliberate false declaration, the applicant will automatically forfeit his/her place in the program.



Please note that enrollment is effective **ONLY** starting from your arrival at GSSI (no later than the first day of official classes). Unauthorized absences may nullify the enrollment procedure.

FOREIGN DEGREE HOLDERS: Dichiarazione di Valore

Prior to registration, admitted candidates with foreign degree (except degree obtained in France, Germany, Ireland, Belgium, Denmark) will have to send or hand in the “Dichiarazione di valore” or a document that certifies that the procedure for obtaining such document has been initiated. The "Dichiarazione di valore" is a translation and legal certification issued according to the relevant legislation by a qualified Italian diplomatic or consular representative in the country where the degree/qualification has been issued, listing all the exams taken and the grades received by the applicant. Temporarily, a proof of the request to the Italian diplomatic or consulate representative may be accepted for “on hold” registration.

IMPORTANT NOTE: Please note that it may take quite some time to obtain the “Dichiarazione di Valore”; as such, we suggest contacting the Italian diplomatic representative in the country where the degree has been issued as soon as possible in the application process.

Contact and info

info@gssi.infn.it, +39 0862 4280262, www.gssi.infn.it.