

## ISTITUTO NAZIONALE DI FISICA NUCLEARE

### GRAN SASSO SCIENCE INSTITUTE

The National Institute for Nuclear Physics (INFN) offers 12 (twelve) positions for research activity at the International Doctoral School Gran Sasso Science Institute (GSSI) in the fields of interest of the Institute (Physics, Mathematics, Computer Science and Urban Studies).

Applicants must hold a Ph.D degree or an equivalent qualification. There is no age limit for applicants; however eligible applicants must have earned their doctoral degree not earlier than the date specified in Annex 1. Candidates who are preparing their doctoral thesis are eligible to apply; however, they must have obtained their Ph.D degree before taking up their appointment with **INFN-GSSI**.

The research topics and the number of research grants are listed in the Annex 1. Candidates can only apply to one research topic.

The annual gross salary is € 40.000,00. Each research grant is granted for two years. Travel tickets to and from L'Aquila will be reimbursed at the beginning and at the end of the appointment; also lunch tickets will be provided for working days.

Applications, in electronic form, must be sent to GSSI no later than February 2 2015 at 6:00 pm (Rome time) through the website <http://www.gssi.infn.it>.

The applications must specify the research topic among those listed in Annex 1, and must include:

- a curriculum vitae;
- a detailed research statement;
- a publication list;
- three reference letters (specifying first name, surname, affiliation and e-mail of each referee).

For each research grant, primary consideration will be given to candidates working on the research topics indicated in Annex 1; however, candidates working on different topics may also be considered. Selection committees may request an interview to candidates, in this case candidates will be contacted through the e-mail address provided in their application, no further notice will be given.

At the end of the selection process, the candidates will be informed by e-mail about the result of their application. Successful candidates will then receive an official communication from the INFN Administration Offices. Selected candidates are expected to start their appointments not later than the date specified in Annex 1. Motivated requests to defer the starting date may be considered.

ISTITUTO NAZIONALE DI FISICA NUCLEARE

IL PRESIDENTE

(Prof. Fernando Ferroni)

## ANNEX 1

Research Topic	Positions
<p><u>Astroparticle Physics – Theory</u></p> <ul style="list-style-type: none"> <li>• Eligible candidates should have earned their PhD not earlier than January 1, 2008.</li> <li>• Selected candidates are expected to start their appointment not later than April 1, 2015.</li> </ul>	2
<p><u>Astroparticle Physics – Experiments</u></p> <ul style="list-style-type: none"> <li>• Eligible candidates should have earned their PhD not earlier than January 1, 2008.</li> <li>• Selected candidates are expected to start their appointment not later than April 1, 2015.</li> </ul>	2
<p><u>Urban Studies</u></p> <ul style="list-style-type: none"> <li>• Eligible candidates should have earned their PhD not earlier than January 1, 2008.</li> <li>• Selected candidates are expected to start their appointment not later than April 1, 2015.</li> </ul> <p>Research Topics:</p> <p>Candidates should have a scientific background in anthropology, economics, political science or sociology. Trans-disciplinary competences and experiences, and skills in the use of qualitative and quantitative empirical evidence will be highly valued. Candidates are expected to contribute to the development of the research projects being currently carried out at the GSSI Cities. Candidates are expected to have a very good knowledge of the English language.</p>	2
<p><u>Mathematics in Natural, Social and Life Sciences</u></p> <ul style="list-style-type: none"> <li>• Eligible candidates should have earned their PhD not earlier than January 1, 2011.</li> <li>• Selected candidates are expected to start their appointment not later than September 1, 2015.</li> </ul> <p>Research Topics:</p> <p>Stochastic particles systems and macroscopic limits, statistical mechanics and phase transitions. Euler and Navier –Stokes equations, Nonlinear hyperbolic PDEs, Mathematical models of collective dynamics, self-organizing complex systems arising from biology and social sciences. Variational methods in continuum mechanics of solids, fluids and biological matter. Numerical methods for nonlinear PDEs.</p>	3
<p><u>Computer Science</u></p> <ul style="list-style-type: none"> <li>• Eligible candidates should have earned their PhD not earlier than January 1, 2008.</li> <li>• Selected candidates are expected to start their appointment not later than September 1, 2015.</li> </ul> <p>Research Topics:</p> <p>Foundations of social and computer networks. Software systems and services. Specifications and analysis of concurrent reactive systems.</p>	3