



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



INSIGHTS ITN - CALL FOR APPLICATIONS

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As a partner of the Marie Skłodowska-Curie European Innovative Training Network (ITN) named "*International Training Network of Statistics for High Energy Physics and Society*" (**INSIGHTS**), the INFN (Italian National Institute for Nuclear Physics) offers a **Ph. D. scholarship in Statistical Sciences at the University of Padova**.

The early-stage researcher (ESR) recipient of the scholarship will be hired by INFN and enrolled in the three-year Ph. D. program offered by the Department of Statistical Sciences of the University of Padova. The ESR will conduct his or her research at the Padova section of INFN; the research will focus on statistical methods targeting the analysis of data from proton-proton collisions collected by the CMS experiment at the Large Hadron Collider operating at the CERN laboratory in Geneva, Switzerland, aiming at the detection of new physics phenomena. The research and training plan includes the participation to international doctoral schools, workshops, and conferences in Physics and Statistics, as well as month-long visiting periods to CERN and to other European institutions belonging to the Network, plus a three-month internship at a non-academic institution, for a stage centered on industry applications of Machine Learning tools. The trainee will work in close connection with a dozen ESR colleagues hired by the partners of the INSIGHTS network. The network vows to provide outstanding, interdisciplinary training and to provide the trainees with excellent employability, both within and outside the academic world. At the end of the three-year program the ESR will obtain a Ph. D. title from the University of Padova.

ELIGIBILITY CRITERIA

Candidates should have an at least four year full time university education degree in Statistics, Mathematics, Physics or related fields, **formally enabling them to embark in a doctorate program in the country where the degree was obtained**; in any case they should possess a strong background in Mathematics, Statistics and Statistical Learning. Additional favorable traits include good computing skills and an interest in the application of statistical methods to fundamental research. **The application of females is encouraged as INSIGHTS applies affirmative-action measures to ensure gender neutrality in the recruitment process.**

In addition to the above, at the time of recruitment by INFN eligible candidates **must NOT have resided or carried out their main activity (work, studies, etc.) in Italy** for more than 12 months in the three years immediately preceding the recruitment date (short stays such as holidays are not taken into account). Eligible candidates must **NOT have been awarded a doctoral degree** and also be, at the time of recruitment, **in the first four years** (full-time equivalent) of their research careers. This is measured from the date when they obtained the degree which would formally entitle them to embark on a doctorate, either in the country in which the degree was obtained or in Italy.

CONDITIONS

The gross scholarship amounts to euro **3,318.37/month**; in addition to it, a gross mobility allowance of euro **600.00/month** is provided for, as well as a gross family allowance of euro **500.00/month** if applicable. The cost of enrolment in the Ph. D. school and of the doctoral courses, as well as all expenses related to travel to schools, workshops, and network-organized events and internships will be sustained by the network.

HOW TO APPLY

Applications shall be sent by e-mail to the address insights@pd.infn.it until the deadline, set to **April 15th 2018 at 5PM CET**. Eligible applications shall be entirely written in English, and have as e-mail subject the text "*INSIGHTS application* -" followed by last name and first name of the applicant; in case of memory limitations, applicants may send the material in more than one e-mail by adding to the subject a proper numbering ("*part 1*", "*part 2*", etc.). E.g., "*INSIGHTS application – Doe, John (part 1)*" for the first e-mail, and "*INSIGHTS application – Doe, John (Part 2)*" for the second. The e-mail(s) shall include as attachments:

- a properly filled **application form**, which can be downloaded at this link: <http://www.pd.infn.it/%7Edorigo/INSIGHTS.docx>
- an exhaustive **curriculum vitae**;
- scans of the original certificates for all titles (university degree, scholarships, etc.) claimed by the applicant in the application form;
- a readable **passport scan**.

Applications will be considered valid if **at least one, and no more than two reference letters** supporting the applicant are received before the above deadline by the already mentioned e-mail address. The subject of e-mails containing reference letters should be of the form "*Reference letter for INSIGHTS application of*" followed by the candidate's last and first name.

SELECTION PROCESS

After a preselection, the most promising candidates will be invited to a one-hour colloquium by video-conference with the selection committee in early May 2018; non-preselected candidates will be notified by e-mail of the result of the preselection. The selection committee will be formed by INFN and Padova University personnel. During the colloquia candidates will be asked to introduce themselves and shortly describe their past research experience. The outcome of the selection process will be notified to preselected candidates within two weeks. **The research activities and scholarship will start in the month of September 2018**, and the Ph. D. program courses are expected to start at the beginning of October 2018. The hired candidate is required to take residence in the province of Padova for the full duration of the program.

Further information on the position and on the program of the INSIGHTS training network can be obtained by visiting the network's web site at <https://www.insights-itn.eu> or by contacting by e-mail the ESR supervisor Prof. Bruno Scarpa at scarpa@stat.unipd.it or the INFN PI dr. Tommaso Dorigo at dorigo@pd.infn.it.