

# Italian Society for Neutron Spectroscopy SISN Advanced School 2018



Neutron scattering data handling, numerical methods, statistical and computational tools: the complex *background* of neutron experiments

**18-22 June 2018 - San Giovanni in Valle Aurina (Bolzano, Italy)**

The present Advanced School organized by the Italian Society of Neutron Spectroscopy is addressed to specializing students, PhD students, post-docs and researchers (with no limitation in age) with some experience in neutron scattering and interested in deepening their knowledge about the statistical and computational methods of typical aid in neutron data analysis and interpretation. A highly interactive environment is expected: with lecturers, tutors and participants in continuous interaction, in the spirit of a workshop or *symposium*. Data handling, specific correction procedures, main analysis programs, and simulation techniques will be dealt with for neutron **diffraction**, **inelastic** and **quasi-elastic** spectroscopy, and **small-angle** scattering, in the attempt of facing the main difficulties that can be encountered AFTER the, sometimes trivial, collection of count rates in a file. Innumerable details regard well-done neutron data analysis, and the ways to reach some confidence about the reliability of the results, based either on comparison with simulation data or by statistical checks, or finally by physical soundness.

The lectures are generally envisaged to be in English. Only in the absence of non-Italian people in the audience (composed of both lecturers/tutors and participants) the spoken language might be agreed to be Italian. The general lectures will be followed by equally very important tutorials, which are meant to be *the core* of the school and the topic moment for discussion and exchange between tutors and participants. Tutorials are intended to give specific information on the typical tools used for data treatment and evaluation of the results in the various areas relevant to neutron scattering.

The school, from 18<sup>th</sup> to 22<sup>nd</sup> June 2018, will be held at Hotel Steinpent in S. Giovanni Valle Aurina (Bolzano, Italy) (<http://www.steinpent.com>).

## Logistics and warnings:

**The registration fee of 200 euros** includes the association fee to SISN for 2018 and covers the whole stay and meals (included coffee breaks in the morning). Stay and meals are booked and organized by the school. Personal extras or wine/beer at the meals are in charge of the participants. It is **IMPORTANT** to notice that the registration fee must be paid by bank transfer **within 15 May 2018**, after receipt of the acceptance letter from the School organization. The acceptance letter will include instructions for the bank transfer.

**Accommodation:** students are generally distributed in double bedrooms. Request for a single bedroom (until available) is in charge of the participants at the cost of about 15 euros/day and the request must be indicated in the registration form. Unfortunately, we cannot guarantee fulfillment of this possibility for late or last-minute registrations within the deadline.

**Travels** towards and backwards from San Giovanni in Valle Aurina are in charge of and individually organized by the participants. Participants are invited to keep the travel documents in case, at a later time, the organizers are able to grant a contribution for travel expenses. However, in general, a contribution is not foreseen.

**Arrival** at Hotel Steinpent should take place **within Sunday 17 June 2018 evening** (preferably before dinner time, which in the local tradition starts at 19.15).

During the school, **social events** might be organized for leisure time, to which participation is free and at one's own expenses.

**To apply for participation** just fill in the attached form (also available at [www.sisn.it](http://www.sisn.it) under the menu 'Formazione') and send it by e-mail, **within 30 April 2018**, to Eleonora Guarini (Physics Dept. Univ. Firenze, Italy) [guarini@fi.infn.it](mailto:guarini@fi.infn.it).

The possibility to attend the school will be expressively communicated to each applicant as soon as possible after the deadline for submission. **The students selected for the school that for any reason are forced to cancel their participation are strongly invited to promptly inform the directors, so to favor the participation of other candidates in their place.**

## Directors:

Alessio De Francesco ([defrance@ill.eu](mailto:defrance@ill.eu))

Eleonora Guarini (Univ. of Florence, Italy, [guarini@fi.infn.it](mailto:guarini@fi.infn.it))



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