



The **Italian Society of Neutron Spectroscopy** organizes a three-year

program of Advanced Schools called Training on Neutron Techniques.

Scopes and Topics

The physical bases of neutron sources and of neutron scattering techniques for the study of condensed matter will be presented and discussed, with examples and applications in various scientific fields. Specific attention will be paid to recent developments and to those in progress and expected for the current decade.

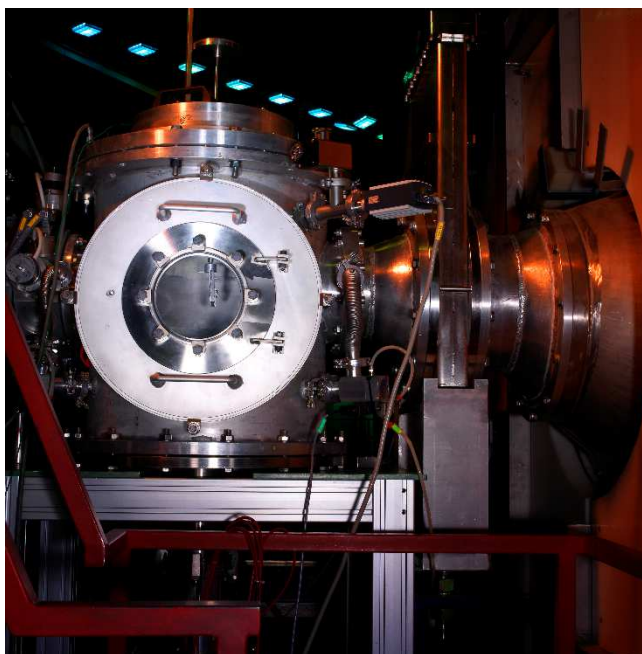
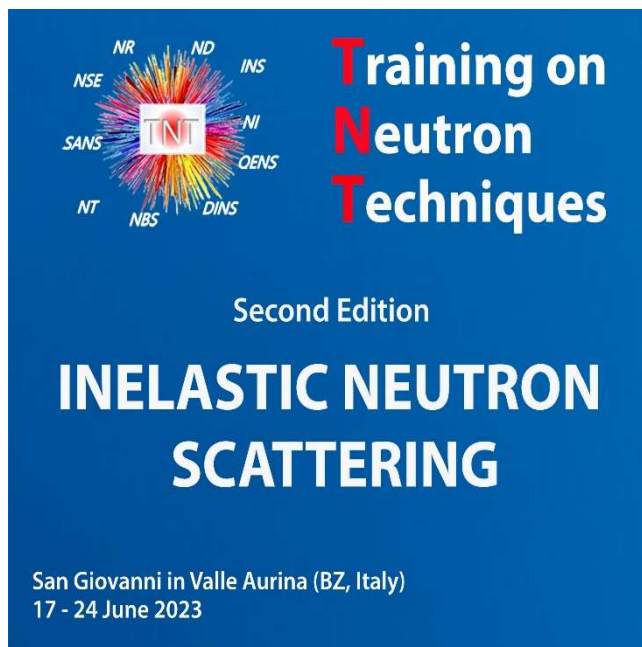
The scientific potentialities of the experimental methods will be discussed for instruments accessible both at reactor-based facilities and at spallation sources, also in view of the European ESS project (the future European Neutron Scattering facility). The **2022** edition focused on **Diffraction and Structural Imaging**, while the **2023** one will be dedicated to **Inelastic Scattering**. Finally, the **2024** edition will deal with **Small Angle Scattering** and **Reflectometry**.

Program coordinator

R. Magli (Università degli Studi, Milano)

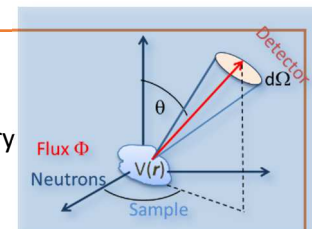
Directors of the 2023 School

A. De Francesco (CNR-IOM, Grenoble)
L. del Rosso (CNR-IFAC, Sesto Fiorentino)
A. Paciaroni (Univ. Perugia, Perugia)
A. Pietropaolo (ENEA, Frascati)



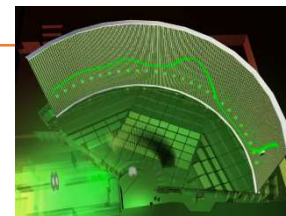
Fundamentals

- Neutron Scattering Theory
- Neutron Sources and Instrumentation
- Mathematical Methods for neutron spectroscopy



Inelastic Scattering

- Coherent Scattering
- Incoherent Scattering
- Quasi-elastic scattering
- Neutron Scattering and Simulations
- INS Instrumentation on Reactor and Spallation Sources



Applications

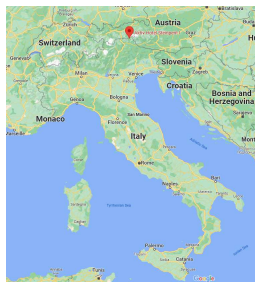
- Liquids
- Nanomaterials
- Soft Matter
- Solids
- Viscoelastic materials



Tutorials

- Small groups of students with tutors





<https://www.steinpent.com>

St. Johann, Ahrn 9, I-39030 Valle Aurina (BZ)

GPS East: 11°56'7" - North: 46°58'22"

General Information

The School is open to **Graduate** and **PhD students** and to **Post-Docs** working in scientific disciplines as Biology, Chemistry, Earth Sciences, Material Sciences, Physics, Sciences for Cultural Heritage Conservation, and similar.

The language of the School will be English. The School program will start on Sunday morning.

General lessons will be held each morning, while the afternoons will be mainly devoted to tutorial activities with small groups of students, with some time, each day, available for free activities.

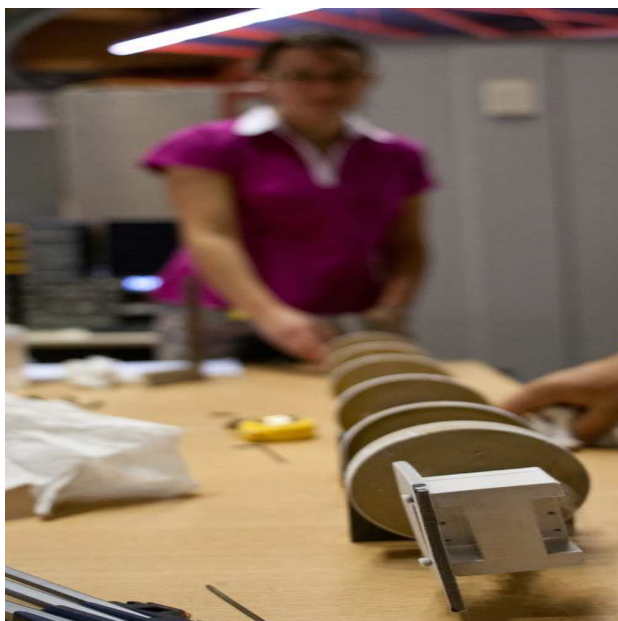
The School will be hosted at [Hotel Steinpent](https://www.steinpent.com), S. Giovanni, Valle Aurina (Bz), Italy, and the students will be accommodated in shared rooms. Students are requested to arrive at the Hotel by 7:00 pm on Saturday June 17th.

Registration & Fees

A maximum of 25 students will be accepted. The registration fees of 300€ include full board accommodation at the Hotel Steinpent and handouts of the lectures if requested. Travels costs to and from S. Giovanni are not included. A limited amount of fellowships is available, depending on the funds at hand.

A pre-registration is required: people interested should complete the Registration Form present at <http://www.sisn.it/formazione/tnt-summer-school> and upload also a short CV.

The SISN will evaluate the applications and will communicate on the scheduled time the final acceptance.



Important dates

- Pre-registration deadline : April 20, 2023
- Preliminary acceptance : April 27, 2023
- Fee payment deadline : May 10, 2023
- Final acceptance : May 20, 2023

Further information



<http://www.sisn.it/>

defrance@ill.fr

l.delrosso@ifac.cnr.it

(please refer to at least one of these e-mail addresses in case of any question)



The school will be held in-person. However, we will keep you updated in due time on the evolution of the COVID pandemic situation.

Scientific committee

- U. Bafle (CNR-IFAC, Sesto Fiorentino)
- Y. Calzavara (ILL and EU-QUALITY)
- M. Celli (CNR-IFAC, Sesto Fiorentino)
- M. Ceretti (ICGM, CNRS Montpellier)
- D. Colognesi (CNR-IFAC, Sesto Fiorentino)
- A. De Francesco (CNR-IOM, Grenoble)
- L. del Rosso (CNR-IFAC, Sesto Fiorentino)
- F. Grazzi (CNR-IFAC, Sesto Fiorentino & INFN-CHNet)
- E. Guarini (Università degli Studi, Firenze)
- A. Luchini (Università di Perugia)
- M. Maccarini (CNRS Grenoble)
- F. Spinozzi (Università Politecnica delle Marche)
- L. Ulivi (CNR-IFAC, Sesto Fiorentino)

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