



Trento Institute for
Fundamental Physics
and Applications



SUMMER SCHOOL on Neutron Detectors and Related Applications NDRA-2018

2nd-5th July, 2018.
Riva del Garda, Trento, Italy.



The aim of the school is to illustrate principles, methodologies and most recent applications of neutron detection technologies. In particular, the school will tackle various arguments that span from neutron interaction principles, materials for neutrons detectors, neutron sources, Monte Carlo simulation codes, up to applications with neutrons.

The school is addressed to PhD students, Post-Docs and young researchers with backgrounds in Engineering and Physics.

TOPICS

- Neutron interaction with materials.
- Physics of neutron detectors.
- Materials for neutron detection.
- Monte Carlo simulation.
- Gas detectors for neutrons.
- Neutron sources.
- Application of neutron detectors.

LECTURERS

Jason Hayward (*Oak Ridge National Laboratories, USA*)

- Physics of neutron interaction with materials.

Stanislav Pospisil (*Czech Technical University in Prague, Czech Republic*)

- Neutron detection principles and neutron imaging.

Peter Schillebeeckx (*EC-JRC-IRMM, Belgium*)

- Data analysis in neutron detection

Gregor Kramberger (*Josef Stefan Institute, Ljubljana, Slovenia*)

- Solid state neutron detectors

Richard Hall-Wilton (*European Spallation Source, Lund, Sweden*)

- Neutron sources.

Alfredo Ferrari (*CERN, Switzerland*)

- Monte Carlo methods.

Ralf Engels (*Forschungszentrum Jülich, Germany*)

- Detector design.

Bruno Guerard (*Institute Laue-Langevin, France*)

- Gas detectors.

Marco Durante (*TIFPA-INFN*)

- Neutrons in radiobiology.

Frederico Garrido (*Université Paris Sud*)

- Neutrons and nuclear waste materials.

Paul Schotanus (*Scionix, Netherlands*)

- Design and development of commercial scintillators.

Sara Pozzi (*University of Michigan – USA*)

-Neutron Detection for Nonproliferation Applications

ORGANIZING COMMITTEE

Alberto Quaranta - Alberto.Quaranta@unitn.it

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CMM-FBK

FEES

Senior researchers Before 1st June 400 € After 1st June 500 €

Students Before 1st June 325 € After 1st June 400 €

A maximum of 60 registrations will be accepted. People who intend to join the school can preliminarily contact the organizing committee.

LOCATION - The school will be held at Riva del Garda Congress Center.

Accommodation – A list of agreed Hotels will be available very soon.

POSTER AND ORAL PRESENTATIONS

PhD and Post-Doc students are invited to present a poster with a short oral introduction during a dedicated session of the school.

HOW TO REACH RIVA DEL GARDA



Motorway

A22, Brennero motorway, Rovereto sud exit: 15 minutes from the toll booth.

By coach

Direct links from Trento and Rovereto (Trentino Trasporti buses); from Verona and Desenzano (A.P.T.V. buses); from Brescia and Milan (S.I.A. buses).

By plane

- Verona Airport "Valerio Catullo" (recommended)
- Brescia Airport "Gabriele D'Annunzio"
- Bergamo Airport "Orio al Serio"
- Milano Airports "Malpensa" and "Linate"
- Venezia Airport "Marco Polo"

By train

Nearest station is Rovereto (Brennero line) 20 km from Riva del Garda.