



InTraNS Germanium detector school University of Liverpool, 7th – 11th April 2025

Announcement

Under the framework of InTraNS@EURO-LABS training activities there will be a Germanium Detector School hosted at the University of Liverpool from 7th – 11th April 2025. The school is aimed at postgraduate students, postdoctoral researchers and electronics engineers who are not experts in germanium detector systems. The school is a complementary activity to the recent Hands-on Workshop on Test, Operation and Repair of detectors held at Legnaro National Laboratory (LNL) in September 2024. The school will give an introduction to germanium detector systems and provide training in essential measurement techniques.

What is InTraNS?

Instrumentation and Training for Nuclear Spectroscopy and Reaction Dynamics (InTraNS) provides expertise on the optimal deployment of experimental setups in EURO-LABS for the nuclear spectroscopy and nuclear reactions communities.

Who is the school aimed at?

Students and Post Doctoral researchers and electronic engineers who are not experts in germanium detector systems

How does it relate to the LNL workshop?

It will focus on attendees with an initial lower level of expertise and will provide training in essential measurement techniques

Topics to be covered:

- Detector assembly
- Repair/Problem solving
- Annealing & Vacuum testing
- Performance Testing

Practical hands-on experience with germanium detectors

- Practical 1: Measurement of the energy resolution and efficiency of HPGe detectors
- Practical 2: Handling a vacuum system. Using scroll and turbo pumps, detector leaks using a helium leak detector.
- Practical 3: Multi-channel digital DAQs. Acquiring data from multi-channel detectors and the measurement of proportional crosstalk.
- Practical 4: Fixing common problems. Troubleshooting a detector system. Using a pulser to probe system respond and derive a preamplifier response function.

Financial support

A limited amount of financial support is available to facilitate attendance at the school. If you would like to be considered for such support, please email for further advice.

Registration (deadline 28th March 2025)

<https://www.eventbrite.co.uk/e/intrans-germanium-detector-school-tickets-1223205964969>

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