

# **DRD1 Gaseous Detectors School**

**Wednesday, 27 November 2024 - Friday, 6 December 2024**

**CERN**

## **Scientific Programme**

The school focuses on state-of-the-art gaseous detector technologies. The programme of the school comprises morning lectures by world experts in the field offering an overview on gas detectors physics, gaseous detector technologies, simulation techniques, manufacturing approaches as well as applications, and hands-on exercises on various technologies in the afternoons, with an emphasis on methodologies.

## Lecture program

Gas detectors physics

- Primary ionisation
- Charge transport
- Avalanche multiplication
- Gas properties

Gaseous detector technologies

- MPGDs
- (M)RPCs
- Wire-based detectors

Readout technologies

- Electronic readout
- Optical & hybrid readout

Simulation and modelling

Manufacturing techniques

Applications

- High Energy Physics
- Applications beyond HEP
- Beyond fundamental research

## Laboratory Exercises

Detector assembly

Instrumentation and detector operation

Characterisation

Readout techniques

Simulation