

Special Lecture Series: Physics of Ionisation Detectors

Monday 29 January 2024 - Thursday 8 February 2024

Scientific Programme

Provisional content:

Fundamentals of ionisation detectors

Tracking of particles

Charge transport and signal generation in a detector

(Shockley-Ramo Theorem and weighting field)

Fundamentals of semiconductor and gaseous detectors

Detector technology, especially of semiconductor and
gaseous micro-pattern detectors

Signal processing & noise in ionisation detector readout

Radiation damage: physics and mitigation measures

Recent novel R&D: e.g. monolithic pixel detectors,
precision timing with ionisation detectors (Si and RPCs)