IBIC2025 - 14th International Beam Instrumentation Conference

Sunday 7 September 2025 - Thursday 11 September 2025

Teaching Hub 502

Scientific Programme

Note 1: Contributions describing a particular detector, its specialized acquisition electronics or related data processing techniques should be placed in the track which best describes the detector function.

Note 2: Abstracts with no clear identification with any of the tracks defined above but in accordance with the conference mission should be submitted. The Scientific Program Committee will carefully review all abstracts and re-classify if necessary.

Note 3: Contributions by authors from industry only will not be accepted; we expect at least one author from an scientific institution. In case of uncertainity, don't hesitate to contact the local conference committee.

MC01: Beam Charge and Current Monitors

Diagnostic systems measuring the average beam current, instantaneous total intensity or individual bunch intensity.

MC02: Beam Loss Monitors and Machine Protection

Diagnostic systems measuring the average beam loss, instantaneous beam loss or individual bunch loss.
Machine protection architectures based on inputs from beam instrumentation systems, as well as machine protection apparatus such as scrapers,

MC03: Beam Position Monitors

Diagnostic systems used for the measurement of beam position: orbit measurement techniques, trajectory measurement techniques, and bunch-by-bunch position measurement systems.
This track includes the use of diagnostics associated with secondary beams, e.g. photon beamlines, to measure the position of the charged particle beam.

MC04: Transverse Profile and Emittance Monitors

Diagnostic systems used for the measurement of transverse beam size, transverse beam profile, transverse emittance, and beam halos.
This track includes both interceptive and non-interceptive diagnostics.

MC05: Longitudinal Diagnostics and Synchronization

Diagnostic systems used for the measurement of longitudinal beam parameters such as bunch length, bunch profile, arrival time, energy spread, or longitudinal emittance.
Systems used for beam synchronization and timing distribution.

MC06: Feedback Systems and Beam Stability

Systems used to stabilize or control any beam or accelerator parameter either in a closed or open loop. This includes control of orbit, trajectory, longitudinal stability, bunch-by-bunch transverse stability, emittance, tune, chromaticity, etc.
This can include descriptions of the detectors, actuators, any specialized acquisition electronics used to acquire the signal, as well as related data processing techniques. The feedback or feedforward aspects should, however, form a major part of the submission, otherwise, the diagnostic description would be better suited to the track dealing with the primary measurement under discussion.

MC07: Data Acquisition and Processing Platforms

Data acquisition systems or architectures of relevance for beam diagnostic systems. This includes acquisition platforms, data processing techniques, electronic component validation or characterization.
Computing platforms, control and acquisition software and operating systems of relevance for beam diagnostics.

MC08: Machine Parameter Measurements

Systems used to measure machine parameters such as betatron tune, chromaticity, higher-order multipoles, space charge, impedance, beam-beam, etc.
Techniques and algorithms used for such measurements.
Other diagnostic devices or techniques which do not clearly match any of the previous tracks.

MC09: Overview and Commissioning

General description of beam instrumentation devices and systems at new facilities or machine upgrades.
Commissioning results and lessons learned.
Workshop reports related to beam diagnostics.

MC10: Special Talks