Contribution ID: **513** Type: **Parallel session talk**

R&D towards the detector for the Muon Collider

Wednesday 23 August 2023 16:30 (20 minutes)

A Muon Collider is being proposed as a next generation facility. This collider would have unique advantages, since clean events as in electron-positron colliders are possible, and high collisions energy as in hadron colliders could be reached due to negligible beam radiation losses. The beam-induced background, produced by the muon decays in the beams and subsequent interactions, reaches the interaction region and the detectors and presents unique features and challenges with respect to other machines. In this talk the R&D activities for the design of the Muon Collider detector will be presented. In particular the development of the tracking system, the calorimeter system and the muon detector will be discussed.
Results of detailed simulation studies of the detector in the muon collider environment and of experimental tests on prototypes based on the most promising technologies will be shown.

Collaboration / Activity

Muon Collider IMCC

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Session Classification: T12 Detector R&D and Data Handling

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