

FORMOSA: looking forward to millicharged particles at the LHC

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The FORMOSA detector at the proposed Forward Physics Facility is a scintillator-based experiment designed to search for signatures of “millicharged particles” produced in the forward region of the LHC. This talk will cover the challenges and impressive sensitivity of the FORMOSA detector, expected to extend current limits by over an order of magnitude. A pathfinder experiment, the FORMOSA demonstrator, was installed in the FASER cavern at the LHC in early 2024 and has been collecting collisional data. Results from this demonstrator and important implications for the full detector design will be shown.

Alternate track

1. Detectors for Future Facilities, R&D, Novel Techniques

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