

The SHADOWS calorimeter

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The SHADOWS experiment, proposed for the 400 GeV/c proton beam at CERN SPS, is dedicated to explore feebly interacting particles (FIPs) generated during proton interactions. This contribution specifically focuses on advancements related to the electromagnetic calorimeter of SHADOWS. In addressing the challenge of reconstructing particles that decay into photons, we present a conceptual design study of a plastic scintillator-based calorimeter designed to provide energy and direction measurements. The pointing capability is essential for FIP detection and has been validated through GEANT4 simulations.

We report on activities related to calorimeter and module design, the scintillator-SiPM coupling, the readout concept, prototyping, and test beam measurements.

Collaboration

SHADOWS

Role of Submitter

I am the presenter

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