

Proposal on the electromagnetic calorimeter for a muon collider

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In the panorama of future colliders, a muon collider represents a very promising choice that would enable a vast physics program. However, the beam-induced background generated from the decay of the muons along the ring is a challenging aspect both from the hardware and the software side. Indeed, despite the presence of a pair of tungsten absorber cones, that mitigate the flux of particles reaching the detector, there is a component that enters the detector and could limit the performance. For this reason, adequate design of the entire detector and of suitable event reconstruction algorithms plays a fundamental role. This poster presents studies on a proposal of promising electromagnetic calorimeter to respond the requests of physics at muon collider.

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