

30th International Symposium on Lepton Photon Interactions at High Energies



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Detector performance and physics reach of at Muon Collider

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The Muon Collider is becoming a realistic option for the next generation of high energy collider machines. Beams with intensity of the order of 10^{12} muons per bunch are necessary to obtain the desired luminosity, which entails a very high rate of muons decay. Among the technological challenges, the treatment of the beam-induced background is one of the most critical issues for the detector design. The detector performance for collider machines working at center of mass energies up to 3 TeV, will be presented discussing, in particular, the strategies studied to mitigate the effect of the beam-induced background. In this contest, the reach of the most representative physics processes will also be presented.

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