

XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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Prospects of a future multi-TeV muon collider

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A multi-TeV muon collider is a discovery machine and an invaluable tool for many precision measurements such as the shape of the Higgs boson potential. The update of the European Strategy for Particle Physics recognized the unique opportunity of a muon collider to reach the energy frontier, despite the challenges to produce intense cooled muon beams. A 3 TeV and a 10+ TeV collider option is the main focus of the forming international collaboration, as well under discussion during the ongoing US Snowmass process.

The Design Study will identify the key issues and risks, the R&D priority plan and will provide a baseline concept for a muon collider facility (machine, experiment and machine detector interface) with well-supported performance expectations to ensure the overwhelming scientific merits. The status of the project, future plans and synergies will be discussed.

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