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Muon Collider in the future of the Energy Frontier

Wednesday 15 May 2024 14:00 (30 minutes)

A multi-TeV muon collider has the unique potential to provide both precision measurements and the highest energy reach in one machine that cannot be paralleled by any currently available technology. There has been a strong physics interest in Muon Colliders recently, as indicated by the number of publications, workshops, Snowmass activities, and the 2023 P5 report which referred to it as “...our Muon Shot”. Significant progress on the fundamental R&D and design concepts for such a machine has led to a new international effort to assemble a conceptual design within the next several years. This effort will assess the viability of such a machine as a successor to the LHC program. In this talk, I will introduce the concept of a high-energy muon collider, provide brief physics motivation, and review recent technological progress. The remaining challenges and the R&D required to deliver a complete machine description will be described.

Mini Symposia (Invited Talks Only)

Plenary (Invited talks only)

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