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Muon Collider Lattice Design[1] ELIANA GIANFELICE-WENDT, Brookhaven National Laboratory, MUON ACCELERATOR PROGRAM (MAP) COLLABORATION — High Energy Physics research is heavily based on particle colliders. There is only one collider operating at the energy frontier, namely the CERN LHC for which a luminosity upgrade is in preparation and is expected to operate until 2035. While many still unanswered questions call for more powerful tools for the post-LHC era, the costs for building and operating larger facilities is the main obstacle to their realization. Technological advancements and new ideas are key ingredients for overcoming the impasse. A Muon Collider could be a more affordable alternative to hadron and electron-positron colliders. First proposed by Budker in 1967, the idea of a MC has been revived in the US at the end of the 90s and many studies addressing the different aspects of such a facility have been published. In this talk I will give an overview of lattice designs which were proposed for the MC before such studies were put on hold in 2016.

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