

Muon Acceleration for Future Neutrino and Higgs Factory

Friday, August 5, 2022 4:40 PM (30 minutes)

Current machine concepts developed by Muon Accelerator Program (MAP) for a neutrino factory can be extended to reach the 63-GeV needed for s-channel production of the Higgs boson and beyond, by the addition of one or two RLAs, Envisioned staged approach, assumes a single-pass linac with a combination of 325 and 650 MHz superconducting RF, followed by a Recirculating Linear Accelerator(RLA) configured with 2.9-GeV/pass, 650 MHz superconducting linac based on quadrupole focusing, completed with four 'droplet' arcs, where the beam reaches 15 GeV in 4.5 recirculation passes. The chain can be further extended by a subsequent RLA based on Tesla cavities.

Attendance type

In-person presentation

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