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## Future Accelerator Facilities for High Energy Physics Research

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With the discovery of the Higgs boson at the LHC, the picture of the Standard Model of particle physics is complete. However, there are strong theoretical motivations and experimental indicators for new physics beyond the standard model. Therefore, there are various plans underway around the globe for future facilities for high energy physics research. Extending the energy frontier beyond the LHC will be vital to elucidate the nature of electroweak symmetry breaking and whatever new physics that might be found at the LHC in the 13 TeV run that is now beginning. Very large hadron colliders in large circular rings of  $\sim 100$  km or more in circumference,  $e^+e^-$  colliders (linear or circular) and a  $\mu^+\mu^-$  collider have all been proposed for various sites in Europe, US, and Asia to continue the pursuit of high energy physics. New physics beyond the Standard Model will also require pursuing research in the neutrino sector and in studies of rare decays. I will discuss the possible scenarios, design issues and technological challenges for hadron colliders and for  $e^+e^-$  colliders and also briefly discuss accelerator facilities for the neutrino programs being planned. It is critical that the high energy physics community be engaged in driving the development of these future facilities.

### Oral or Poster Presentation

Oral

**Primary author:** BHAT, Pushpalatha (Fermi National Accelerator Lab. (US))

**Presenter:** BHAT, Pushpalatha (Fermi National Accelerator Lab. (US))

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