



Contribution ID: **1018**

Type: **Oral Presentation**

Fermilab PIP-II Status and Strategy (15' + 5')

Thursday, 4 August 2016 11:30 (20 minutes)

Proton Improvement Plan-II (PIP-II) is the centerpiece of Fermilab's plan for upgrading the accelerator complex to establish the leading facility in the world for particle physics research based on intense proton beams. PIP-II has been developed to provide 1.2 MW of proton beam power at the start of operations of the Long Baseline Neutrino Experiment (LBNE), while simultaneously providing a platform for eventual extension of LBNE beam power to >2 MW and enabling future initiatives in rare processes research based on high duty factor/higher beam power operations. PIP-II is based on the construction of a new, 800 MeV, superconducting linac, augmented by improvements to the existing Booster, Recycler, and Main Injector complex. PIP-II is currently in the development stage with an R&D program underway targeting the front end and superconducting rf acceleration technologies. This paper will describe the status of the PIP-II conceptual development, the associated technology R&D programs, and the strategy for project implementation.

Work supported by the Fermi Research Alliance under U.S. Department of Energy contract number DE-AC02-07CH11359

Primary author: MISHRA, Shekhar (Fermilab)

Co-authors: MITCHELL, Don (FERMILAB); DERWENT, Paul (FermiLab); HOLMES, Stephen (Fermilab); LEBEDEV, Valeri (Fermilab)

Presenter: MISHRA, Shekhar (Fermilab)

Session Classification: Accelerator: Physics, Performance, R&D and Future Facilities

Track Classification: Accelerator: Physics, Performance, R&D and Future Accelerator Facilities