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Near Term Prospects at FNAL and Project X STUART HENDERSON, Fermi National Accelerator Laboratory

Project X, a high-power proton accelerator facility, will support world-leading programs in long baseline neutrino physics, the physics of rare processes, and nuclear studies. It will be unique among accelerator facilities worldwide in its flexibility to support multiple physics programs simultaneously with MWclass beams at the intensity frontier. Project X is based on a 3 GeV continuous-wave superconducting H-linac. Further acceleration to 8 GeV, and injection into Fermilab's existing Recycler/Main Injector complex, will support long-baseline neutrino experiments. Project X will provide 1 MW beam power at 1 GeV, 3 MW beam power at 3 GeV and 2 MW beam power to a neutrino production target at 60-120 GeV. This talk will describe the Reference Design of Project X and the status of the R&D program.