

Abstract Submitted
for the DNP10 Meeting of
The American Physical Society

Project X: A High Intensity Proton Source at Fermilab¹

STEPHEN HOLMES, Fermi National Accelerator Laboratory — As the Fermilab Tevatron Collider program draws to a close a strategy has emerged of an experimental program built around the high intensity frontier. The centerpiece of this program is a superconducting H- linac that will support world leading programs in long baseline neutrino experimentation and the study of rare processes, with potential applications in nuclear physics and nuclear energy. Project X will provide multi-MW beams from the Main Injector over the energy range 60-120 GeV, simultaneous with mult-MW beams at 3 GeV. Shared technology development with ILC and the Muon Collider will establish a bridge to future facilities at the energy frontier. This talk will describe the currently favored accelerator configuration, associated performance projections, status of the accelerator R&D program, and the strategy for moving forward.

¹Work supported by Fermi Research Alliance, under contract to the U.S. Department of Energy.

Stephen Holmes
Fermi National Accelerator Laboratory

Date submitted: 12 Jul 2010

Electronic form version 1.4