

APR11-2011-020079

Abstract for an Invited Paper
for the APR11 Meeting of
the American Physical Society

The Energy Frontier: Tevatron, LHC and LHC Upgrades

ERIC PREBYS, Fermilab, Program Director, US LHC Accelerator Research Program (LARP)

On December 14, 2009, the unprecedented reign of the Fermilab Tevatron as the world's highest energy collider ended after almost a quarter century, when the LHC successfully collided two beams of 1.18 TeV each. It soon reached its current energy of 3.5 TeV per beam, and over the next few years should reach the design energy of 7 TeV per beam and a luminosity of roughly 30 times that of the Tevatron. Although we look forward to exciting new physics at every step, a program has been outlined which would take some 50 to fully explore at this nominal luminosity. Therefore, after providing an overview on the significance of the Tevatron and the status of the LHC, this talk will focus on the plans to increase the integrated luminosity of the LHC and perhaps even to increase the energy at some point.