

COLLOQUIUM

The Tevatron Collider: A thirty-year campaign at the forefront of particle physics.

John Peoples

Fermilab

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4:00 p.m. - Wilson Hall, One West

I will describe the evolution of the Tevatron from a 1 TeV proton fixed target accelerator to a high luminosity 2 TeV center of mass proton-antiproton collider, as well as the state of particle physics in the United States that made the case for the Tevatron Collider very compelling. The first proposal to use the Tevatron as a proton-antiproton collider was formulated in 1977, well before the Tevatron was finished. The first Tevatron Collider run with a finished CDF Detector occurred in 1987 and the experimental results vaulted the Tevatron Collider program to the forefront of particle physics. I will describe the campaign of major changes to the Tevatron and the supporting accelerators at Fermilab that enabled the discovery of the top quark and kept the Tevatron at the forefront until 2011 when the LHC surpassed its performance and discovered the Higgs Boson.