COLLOQUIUM

The D0 experiment: its history and physics accomplishments

Paul Grannis
Stony Brook University

May 24, 2017
4:00 p.m. - Wilson Hall, One West

In 1981, Fermilab Director Leon Lederman proposed a 'small, simple and clever experiment' in the D0 interaction region of the Tevatron, the only remaining free space in the lattice. Over a dozen proposals were made but the Physics Advisory Committee recommended to discard them all and commission a sight-unseen new venture by an unidentified collaboration. The resulting collaboration proposed an experiment that failed at least two of Lederman's criteria and, from its inception in 1983, took nine years to build and run along with the CDF experiment in the Tevatron. Fortunately for D0, the growth in Tevatron luminosity was such that coming from behind was not such a handicap. In time, D0 and CDF brought complementary strengths and the important competition that led to the strong Tevatron physics legacy. In this talk, we will trace the history of D0 and limn its scientific accomplishments.