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Recent Measurements of the Top Quark from Fermilab

KIRSTEN TOLLEFSON, Michigan State University

The top quark was discovered in 1995 at Fermilab by both the CDF and D0 experiments. At that time, called Run I, both experiments measured various properties of the top quark, namely its production cross section and mass, but these results were limited by statistics. During the late 1990's the Fermilab accelerator and the collider experiments underwent extensive upgrades. Since 2002, when Run II started, Fermilab has collected 20 times more data than Run I. The larger data samples and increased collision energy of Run II have allowed CDF and D0 to move into the realm of precision measurements of the top quark. The latest results from studies of the top quark at both experiments will be presented. These will include precision measurements of the top quark mass and its cross section plus other properties such as its charge and lifetime. In addition CDF and D0 have studied top quark production and decay properties looking for deviations from the Standard Model and possible hints to new physics. Most of these results involve the pair production of top quarks through the strong interaction. The Standard Model also predicts that top quarks should be produced singly through an electroweak interaction but with a smaller cross section than pair production. Until recently both experiments have only been able to place limits on single top quark production. The latest results with evidence for single top quark production will also be shown.