

# Top Production Cross Sections at D0

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We report on measurements of the  $t\bar{t}$  production cross section at a center-of-mass energy of 1.96 TeV at the D0 experiment during Run II of the Fermilab Tevatron collider. We use candidate events in lepton+jets and dilepton final states. In the most sensitive channel (lepton+jets channel), a neural network algorithm that uses lifetime information to identify b-quark jets is used to distinguish signal from background processes. We also present measurements of single top quark production at D0 using several multivariate techniques to separate signal from background: boosted decision trees, bayesian neural networks and matrix elements.

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