

Source	Uncertainty (%)
Lepton ID and Trigger	10
Initial State Radiation	7
Jet Energy Scale	6.5
B tagging Efficiency	12

Table 7: The uncertainties in the acceptance calculation for the CDF cross section measurement using the SVX tagged sample.

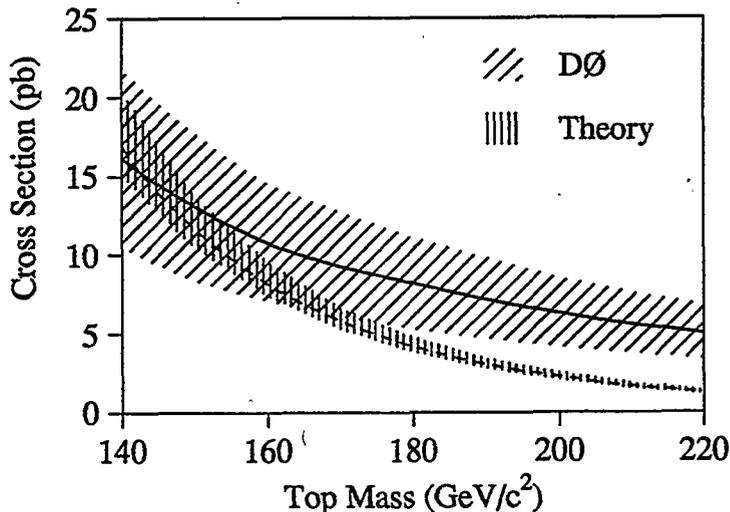


Figure 11: The top quark cross section determined by the $D\phi$ collaboration as a function of top quark mass. The QCD prediction for $t\bar{t}$ production is displayed as the heavier band. acceptance, channel by channel. They determine $\sigma_{t\bar{t}} = 6.2 \pm 2.2$ pb, for a top quark mass of 200 GeV/c^2 . This value doubles to ~ 12 pb if one assumes a top quark mass of 160 GeV/c^2 . The top quark mass dependence of the $D\phi$ cross section is illustrated in Fig. 11.

The CDF and $D\phi$ estimates are in good agreement with each other, although both have large uncertainties. A strong test of the lowest order calculation for $\sigma_{t\bar{t}}$ and next-to-leading order corrections will have to wait for substantially more statistics.

8.2 The Top Quark Mass

The top quark mass can be determined directly by correlating the kinematics of the observed partons in the final state. The sensitivity of this measurement depends on the amount of “missing” information in the events, and the inherent resolution of the detectors to jets and missing energy. The lepton + ≥ 4 jet events offer the possibility of fully reconstructing the $t\bar{t}$ system provided one assumes that the missing