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Top quark mass measurement in the lepton plus jets channel at CDF with a matrix element method ADAM GIBSON, University of California Berkeley — We present a preliminary measurement of the top quark mass, using events from $p\bar{p}$ collisions at $\sqrt{s}$= 1.96 TeV observed with the Collider Detector at Fermilab (CDF). The events are required to contain one energetic electron or muon, large missing transverse energy, and four jets. Likelihoods are calculated as a function of top quark mass for each event, using leading-order $t\bar{t}$ and background matrix elements, and parameterized parton showering. The final measured top quark mass is extracted from a joint likelihood that is the product of the individual event likelihoods.

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