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Minimum-Bias Studies Using the Energy Scan Data from Fermilab's Tevatron Collider DAVID WILSON, University of Virginia, CRAIG GROUP, Fermilab, University of Virginia, RICK FIELD, University of Florida, CDF COLLABORATION — We report on an analysis of the minimum-bias event data (that is, events recorded with the least selective trigger criteria) taken at the Tevatron collider at Fermilab, in particular an energy scan recording collisions at $\sqrt{s}$ = 0.3, 0.9, and 1.96 TeV. This data set represents a rare chance to analyze the energy dependence of several minimum-bias observables: the pseudorapidity ($dN/d\eta$) and transverse momentum (dN/dP_T) distributions; the distribution of charged-particle multiplicities; and the average transverse momentum vs. charged-particle multiplicity. We present the results of a comparison of these observables with the PYTHIA Monte Carlo simulation.

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