

Abstract Submitted
for the APR07 Meeting of
The American Physical Society

Jet Energy Scale Determination at D0 ANDRES TANASIJCZUK,
Universidad de Buenos Aires, D0 COLLABORATION — Many physics measurements at a hadron collider critically depend on an accurate knowledge of the energy of jets resulting from the fragmentation of quarks and gluons generated in the hard interaction. The precise determination of the jet energy scale is a challenging project, involving corrections for physics, instrumental and jet algorithm-dependent effects. We present the most recent determination of the jet energy scale at the D0 experiment during Run II of the Tevatron proton- antiproton collider. We review the procedure followed, the estimated systematic uncertainties, as well as the validation studies performed. The experience gained by the Tevatron experiments in achieving percent-level determination of the jet energy scale should be of great value for the LHC.

Ulrich Heintz
Boston University

Date submitted: 16 Mar 2007

Electronic form version 1.4