TUFTS UNIVERSITY

Physics and Astronomy Colloquium

"Boson plus Jets at ATLAS"

Evelin Meoni

Tufts University

Measurements of the cross sections for the jet production in association with a W or Z boson in proton-proton collisions at ps = 7 TeV are presented. The analyses are based on the full 2010 data set collected with the ATLAS detector at the LHC, corresponding to an integrated luminosity of 35 pb−1. The cross sections are measured for the electron and muon decay channels of the W and Z bosons, and for their combination. Inclusive and differential results are presented as a function of jet multiplicity and kinematics. A measurement of the ratio of the W and Z plus one jet production cross section is also presented. Finally jets containing b-hadrons are identified and measured and the inclusive cross-section measurements are presented. The measurement are compared with next-to-leading order perturbative QCD predictions corrected for non-perturbative effects and with LO Monte Carlo supplemented by parton shower.

1:30 pm
Wednesday, March 21, 2012
STC Bldg, 4 Colby St., Room 132
Medford Campus