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Charged particle multiplicities in proton-proton collisions at 900 GeV and 7 TeV center of mass energies REMI ZAIDAN, Univ of Iowa, AT-LAS COLLABORATION — The measurement of the charged particle multiplicities with the ATLAS detector in inelastic p - p collisions at center of mass energies of 900 GeV and 7 TeV are presented. The charged particle density, its dependence on pseudo-rapidity and transverse momentum and its correlation with the average transverse momentum is measured for events with at least two charged particles in the kinematic range  $|\eta| < 2.5$  and  $p_T > 100$  MeV. The measurements are compared to different Monte Carlo model predictions.

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