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Measurements of particle production, Bose-Einstein correlations and Underlying Event properties with the ATLAS detector

Thursday 23 July 2015 15:00 (15 minutes)

The ATLAS collaboration has carried out several measurements of particle production properties and correlations at different pp collisions centre-of-mass energies.

The production properties of mesons and baryons at $\sqrt{s}=7$ TeV are presented and compared to predictions. The effects of space-time geometry in the hadronization phase has been studied in the context of Bose-Einstein correlations between charged particles, for determining the size and shape of the source from which particles are emitted and for interpreting of quark confinement effects. Bose-Einstein correlation parameters are investigated in p-p collisions at 900 GeV and 7 TeV, up to very high charged-particle multiplicities. In addition, particle distributions sensitive to the underlying event in proton-proton collisions have also been measured at 7 TeV centre-of-mass energy in different final-state processes.

additional information

Submitted on behalf of the ATLAS Standard Model Physics Group by the ATLAS Speakers Committee representative Alex Read (a.l.read@fys.uio.no). Alex is not the speaker! A speaker will be selected by the Speakers Committee when the abstract is accepted.

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