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Soft probes of p+Pb and Pb+Pb collisions in the ATLAS experiment at the LHC

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Physics studies of p+Pb and Pb+Pb collisions in the ATLAS experiment at the LHC at low transverse momenta include the charged particle multiplicities, their scaling with the number of participating nucleons as well as pT-spectra and their modification with respect to the spectra of proton-proton collisions. Recent ATLAS results on the total charged particle multiplicities and spectra in p+Pb and Pb+Pb will be reviewed.
The collective phenomena arising from the azimuthal asymmetry in the initial shape of the interaction region and maintained by the subsequent system evolution and can be in detail studied by analyzing charged particle azimuthal distributions. The recent measurements of flow harmonics in p+Pb and Pb+Pb collisions will be presented.
In particular, the presentation will focus on flow harmonics fluctuations and their relation to fluctuations in the initial state of Pb+Pb collisions.

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