

ALICE results on the production of charged particles in pp, p-Pb, Xe-Xe and Pb-Pb collisions at the LHC

Tuesday 2 October 2018 09:00 (20 minutes)

We present the measurement of charged particle production at mid-rapidity ($|\eta| < 0.9$) in pp ($\sqrt{s} = 2.76$ TeV, 5.02 TeV), p-Pb ($\sqrt{s_{NN}} = 5.02$ TeV), Xe-Xe ($\sqrt{s_{NN}} = 5.44$ TeV) and Pb-Pb ($\sqrt{s_{NN}} = 2.76$ TeV and 5.02 TeV) collisions with ALICE at the LHC. The transverse momentum (p_T) spectra are measured in the broad range $0.15 < p_T < 50$ GeV/c and in the narrow centrality bins spanning the whole 0–100% interval. The p_T spectra measured in p-Pb, Xe-Xe and Pb-Pb collisions are compared to those in pp collisions in terms of nuclear modification factors and are compared with the parton energy loss models. A detailed comparison of nuclear modification factors in p-Pb and in peripheral A–A collisions will be discussed. The results suggest that the peripheral collisions can be affected by biases caused by the event selection and collision geometry, which can lead to an apparent nuclear modification even in the absence of jet quenching.

Summary

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Session Classification: Parallel 2