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Measurements of Nuclear Modification Factor of Inclusive Full Jet Measurements in Pb-Pb Collisions at √sNN = 5.02 TeV with LHC-ALICE

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The quark-gluon plasma (QGP) which emerges in collisions of ultra-relativistic heavy-ions can be probed with jets, collimated showers of hadrons resulting from fragmentation of highly-virtual partons after a hard scattering. The jet shower interacts with the QGP via collisional and radiative processes that lead to a phenomenon known as jet quenching which manifests itself by suppression of high-pT jet yields and jet shape modifications. The observed modifications carry information about the transport properties of the QGP.
In this presentation, we report the nuclear modification factor measurements of full jets in Pb-Pb collisions at √sNN = 5.02 TeV taken with the ALICE experiment at the LHC. The jet energy scale is corrected for the large, fluctuating underlying event with the area based method, where the underlying event density is obtained either with the traditional or machine learning based estimators. The machine learning estimator enables to access lower transverse momenta and larger jet radii than previously possible in ALICE. The potential bias introduced by the machine learning method is investigated and its impact is quantified.

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