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Measurement of suppression of large-radius jets and its dependence on substructure in Pb+Pb with ATLAS

Wednesday 22 July 2020 17:00 (9 minutes)

Measurements of the jet substructure in Pb+Pb collisions provide information about the mechanism of jet quenching in the hot and dense QCD medium created in these collisions, over a wide range of energy scales. This poster presents the ATLAS measurement of the suppression of yields of large-radius jets and its dependence on the jet substructure, characterized by the presence of sub-jets and their angular correlations. This measurement is performed using the large Pb+Pb data sample at the center-of-mass energy of 5.02 TeV recorded in 2018 and compared to the result from 2017 pp collisions at the same collision energy. This study of the suppression of inclusive yields of large-R jets brings new information about the evolution of the parton shower in the medium and tests the sensitivity of the jet quenching to the color coherence effects.

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