

Abstract Submitted
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Jet Trigger and Jet Reconstruction Performance in Pb+Pb Collisions at ATLAS¹ WENKAI ZOU, Columbia University, ATLAS COLLABORATION — Jets in heavy-ion collisions provide a powerful tool to probe the hot and dense QCD medium created in these collisions. In the ATLAS experiment a set of dedicated heavy ion jet triggers are designed to record the events containing jets in a wide range of transverse energies. Further, a jet reconstruction algorithm optimized to correct for the large event-by-event dependent underlying event produced in heavy ion collisions is used in the offline reconstruction of the data. This talk presents the performance of the jet trigger and offline jet reconstruction used by ATLAS experiment in the 2018 heavy ion run where ATLAS recorded Pb+Pb collisions at the center of mass energy of 5.02 TeV. Trigger and reconstruction efficiencies, jet energy and angular scales and resolutions are presented. The study is performed for both small $R = 0.4$ and large $R = 1.0$ jets. This study might point to possible improvements for the upcoming heavy ion runs.

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