Contribution ID: **458**   Type: **Poster**

Jet trigger in lead-lead collisions at ATLAS during LHC Run 3

Jet triggering is a critical part of all jet physics measurements in LHC Run 3. In this poster, we describe the jet trigger strategy and performance in the ATLAS experiment during LHC run 3. The performance of level 1 (L1) triggers used as seeds for high-level trigger (HLT) will be shown along with typical trigger rates. While performing the underlying event (UE) subtraction at the L1 trigger is challenging, the UE subtraction can be implemented at the HLT step. The strategy to perform the subtraction at the HLT and differences with respect to the online jet reconstruction are described. Performance of the HLT jet reconstruction in terms of energy scale, energy resolution, position resolution, and HLT reconstruction efficiency is shown and compared with typical performance obtained for offline jets. Performance is evaluated for various jet sizes and rapidity positions in the detector. Strategies to trigger on events with rare topologies are discussed, and typical trigger rates for various trigger strategies are summarized.

Category

Experiment

Collaboration (if applicable)

ATLAS Collaboration

Author: VANA, Pavel (Charles University (CZ))

Presenter: VANA, Pavel (Charles University (CZ))

Session Classification: Poster session 1

Track Classification: Jets