

# Dijet measurements in heavy ion collisions with the ATLAS detector

Jet imbalance is a known signature of jet energy loss in the hot, dense medium produced in heavy ion collisions. New measurements of the dijet asymmetry at ATLAS are presented using the 2011 Pb+Pb data from the LHC at  $\sqrt{s_{NN}} = 2.76\text{TeV}$  using jets reconstructed with the anti- $k_t$  algorithm with parameters  $R=0.3$  and  $0.4$ . While previous measurements demonstrated a significant effect in the asymmetry, a detailed quantitative understanding was difficult to obtain due to the impact of the finite jet energy resolution. This measurement has been fully unfolded to account for bin migration from resolution effects. It benefits from the major improvements in jet reconstruction in a heavy-ion environment since the original ATLAS dijet measurements. This result demonstrates a centrality and leading jet transverse energy dependence of the asymmetry when compared to the  $\sqrt{s_{NN}}$  reference data at the same center of mass energy.

## Preferred Track

Jets and High  $p_T$  Hadrons

## Collaboration

ATLAS

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