

## Measurement of jet production in central Pb–Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV using semi-inclusive hadron-jet distributions

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The ALICE collaboration at the LHC presents a measurement of jet production rates recoiling back-to-back from a high  $p_T$  trigger hadron. The observable is the difference between normalized recoil jet spectra for two hadron  $p_T$  trigger intervals. This approach allows the removal of the large combinatorial jet background in heavy ion events in a model-independent way, while preserving collinear safety and a low infrared cutoff (150 MeV) for the coincidence recoil jet population. The jet recoil yield is measured over a wide  $p_T$  range for different choices of jet cone radius. The azimuthal distribution of recoil jets is also explored. The measurements are compared to a calculation of the same observable for pp collisions using Next-to-Leading Order perturbative QCD, and to predictions of Monte Carlo models incorporating jet quenching.

### Keywords

jets, recoil, pQCD, energy loss, Pb-Pb, azimuthal distribution, ALICE, LHC

**Primary author:** Dr CUNQUEIRO, Leticia (CERN)

**Presenter:** Dr CUNQUEIRO, Leticia (CERN)

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