

# BOOST 2021 : 13th International Workshop on Boosted Object Phenomenology, Reconstruction and Searches in HEP

Contribution ID: 22

Type: **not specified**

## Jet and MET reconstruction and calibration in ATLAS

*Tuesday, August 3, 2021 3:00 PM (15 minutes)*

The reconstruction and calibration of hadronic final states is an extremely challenging experimental aspect of measurements and searches at the LHC. This talk summarizes the latest results from ATLAS on the calibration of the jet energy and mass scale and resolution of anti-kt  $R = 0.4$  and  $R = 1.0$  jets. Measurements of the calorimeter response to single hadrons will be presented which are the largest source of uncertainty on the jet energy scale at high transverse momentum. Additionally, new inputs to jet reconstruction will be discussed that better utilize relationships between calorimeter and tracking information. Finally, machine learning approaches will be discussed to improve the reconstruction of missing transverse momentum.

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**Session Classification:** Hadronic object reconstruction + q/g discriminants