



Contribution ID: 39

Type: **not specified**

# Flavour Tagging with Graph Neural Network with the ATLAS Detector

*Tuesday 25 March 2025 11:44 (20 minutes)*

The identification of jets containing b-hadrons is key to many physics analyses at the LHC, including measurements involving Higgs bosons or top quarks, and searches for physics beyond the Standard Model. In this contribution, the most recent enhancements in the capability of ATLAS to separate b-jets from jets stemming from lighter quarks will be presented. The improved performance originates from the usage of state-of-the-art machine learning algorithms based on graph networks. A factor of more than 2 to reject light- and c-quark-initiated jet is observed compared to the current performance. The expected performance of this algorithm at the High-Luminosity LHC (HL-LHC) will also be discussed in detail.

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**Session Classification:** WG4: QCD with Heavy Flavors and Hadronic Final States

**Track Classification:** QCD with Heavy Flavors and Hadronic Final States