EPS-HEP2023 conference



Contribution ID: 145

Type: Poster

Flavour Tagging with Graph Neural Network with the ATLAS Detector

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-quarkinitiated 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.

Collaboration / Activity

ATLAS

Primary authors: ATLAS SPEAKER TO BE ASSIGNED; FROCH, Alexander (Freiburg)Presenter: FROCH, Alexander (Freiburg)Session Classification: Poster session

Track Classification: Detector R&D and Data Handling