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Performance of Constituent-Based W/Z Tagging with the ATLAS Detector

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Identifying boosted hadronic decays of W/Z bosons is central to many LHC physics analyses. This poster presents the performance of constituent-based W/Z boson taggers using large-radius boosted jets reconstructed from Unified Flow Objects (UFOs) in simulated collisions at $\sqrt{s}=13$ TeV. Several taggers which consider all the information contained in the kinematics of the jet constituents are studied. A comparison between these taggers and the current generation of ATLAS W/Z taggers is also provided. Several constituent based taggers are found to improve performance across the wide kinematic range of interest. The dependence of each tagger's performance on physics modeling is also studied.

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