Searches Using Substructure Techniques for Exotics in ATLAS.

The significant increase of the centre-of-mass energy of the Large Hadron Collider (LHC) from 8 to 13 TeV has allowed the experiments at the LHC to explore previously inaccessible kinematic regimes in their search for phenomena beyond the Standard Model of Particle Physics. The sensitivity of these searches depends crucially on the efficient reconstruction and identification of hadronic decays of highly energetic (boosted) objects, the decay products of which are typically collimated into a single large jet with a characteristic substructure. In this contribution, I review the searches conducted by the ATLAS experiment on data recorded during 2015 and 2016 that rely on substructure techniques to identify signatures of interest. A particular emphasis is placed on recent developments in the rapidly evolving field of boosted object tagging.

I intend to submit my contribution for the proceedings

Yes

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