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Jet substructure: a discovery tool at the LHC

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Abstract content ** ** (Max 300 words) **
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Jets are the collimated bunches of hadrons measured in our detectors, created at high energy particle collisions. As we go to higher energies at the Large Hadron Collider (LHC), Higgs bosons, or yet undiscovered heavy particles are produced with very high energy and the decay products from these “boosted” particles tend to be contained in large radius jets. The internal structure of these jets is exploited to identify the original objects.

In this talk, I will motivate the use of substructure techniques for probing new physics at the LHC. I will then discuss the recent ATLAS results on substructure measurements, including a very new and promising method called “shower deconstruction”.

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