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ATLAS Searches using Jet Substructure Techniques

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Jet Substructure (JSS) is a critical tool in the search for new physics at the energy frontier. The large center-of-mass energy of the LHC can produce heavy new particles which subsequently would decay into very energetic SM particles. Without JSS techniques, our ability to identify decays to Vector Bosons, Higgs Bosons, or top-quarks would decrease dramatically. Also, to evade the restrictions of the online trigger systems, JSS techniques are also employed to search for light new particles produced with large transverse momentum. This talk will give an overview of the ATLAS Run 2 search program where JSS is of the greatest importance.

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