

LEPP Journal Club

Friday, April 8, 2011. 4:00 pm (3:45 refreshments)
301 Physical Sciences Building



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Using Jet Substructure to Find New Physics at the LHC

At LHC energies, particles like the W, Z, top and Higgs can become collimated (i.e. boosted) with their decay products falling entirely within a single jet. This has traditionally been viewed as a problem, but recent jet substructure techniques allow one to look inside jets and gain insight into the underlying particles which produced them. Remarkably, this allows one to recover lost information and even make qualitatively new measurements relevant for understanding physics both of the SM and beyond (e.g. color structures). I will provide an introduction to this field, discussing relevant techniques and potential applications. No prior experience with jets is required.

