

b-Jet Clustering Techniques for BSM Higgs Physics

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In this talk we consider aspects of beyond the standard model phenomenology involving b-jet classification. In particular, we consider events involving an extended Higgs sector from 2HDMs, which decay into final states of multiple b-jets. We review how these jets are identified and tagged both at the LHC and in Monte Carlo simulation, including so called jet clustering algorithms, and pose the question of whether certain parameters and techniques can be optimised for particular LHC searches. Finally we hint at birthing a new way of performing this analysis for future use in looking for BSM physics at experiments.

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