Phenomenology 2013 Symposium



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Fox-Wolfram Moments in Higgs Physics

Monday 6 May 2013 18:15 (15 minutes)

This talk will discuss recent attempts to improve Higgs search

analyses at the LHC using a class of correlated observables known as Fox-Wolfram moments. A comparison of the main Standard Model Higgs production mechanisms of gluon fusion and vector boson fusion to common backgrounds is performed using the moments. We show that the moments are, at first glance, at least as good as current cut-based methods and with more careful study may prove to be more efficient. Multivariate analysis techniques are examined as a way to achieve this improvement.

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