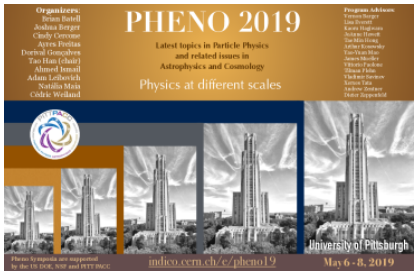

Contribution ID: **812** Type: **parallel talk**

Kinematic Wavelet Analysis Kit

Tuesday 7 May 2019 15:15 (15 minutes)

We introduce a new approach for the global analysis of kinematic distributions, using a wavelet transformation to search for signals of new physics. Many LHC analyses search for bumps or other anomalous patterns as local deviations from a background model. Wavelets allow us to extract global information from the entire distribution, while retaining the local aspect of simple modifications. We propose a systematic visualization and analysis in terms of wavelet coefficients and show how for example bumps, bump-dip combinations, and oscillation patterns are extracted efficiently. Our package is publicly available online as the Kinematic Wavelet Analysis Kit (KWAK).

Summary

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