(Re)interpreting the results of new physics searches at the LHC

Contribution ID: 25

Type: not specified

pyhf: pure-python HistFactory - the tutorial

Thursday, 18 February 2021 16:30 (1 hour)

The HistFactory p.d.f. template CERN-OPEN-2012-016 is per-se independent of its implementation in ROOT and sometimes, it's useful to be able to run statistical analysis outside of ROOT, RooFit, RooStats framework. This tutorial will introduce users (who are generally familiar with hypothesis testing) to the pyhf python package. Examples using public HEPData material will be used for asymptotic fits, brazil bands, and pull plots. By the end of the tutorial, users will understand how to find likelihoods on HEPData, how to download and perform hypothesis testing, how to patch in a signal into a background-only pdf, and how to simplify likelihoods.

Primary authors: FEICKERT, Matthew (Univ. Illinois at Urbana Champaign (US)); HEINRICH, Lukas Alexander (CERN); STARK, Giordon Holtsberg (University of California, Santa Cruz (US))

Presenters: FEICKERT, Matthew (Univ. Illinois at Urbana Champaign (US)); HEINRICH, Lukas Alexander (CERN); STARK, Giordon Holtsberg (University of California,Santa Cruz (US))

Session Classification: Tutorials and hands-ons