

General likelihood fitting with zfit & hepstats

Monday 9 October 2023 15:00 (1 hour)

Likelihood fits and inference are an essential part of most analyses in HEP. While some fitting libraries specialize on specific types of fits, zfit offers a general model fitting library.

This tutorial will introduce fitting with zfit and hepstats. The introduction will cover unbinned and binned model building, custom models, simultaneous fits and toy studies to cover most of the use-cases in HEP. Furthermore, hepstats will be used for statistical inference of limit setting, significance and sWeights. Other libraries from Scikit-HEP will be touched upon for data loading, plotting, binning, minimization - all in the context of likelihood fits.

Authors: PUIG NAVARRO, Albert (Universität Zürich (CH)); ESCHLE, Jonas (University of Zurich (CH)); Mr MARINANGELI, Matthieu (EPFL - Ecole Polytechnique Federale Lausanne (CH)); SILVA COUTINHO, Rafael (Syracuse University (US))

Presenter: ESCHLE, Jonas (University of Zurich (CH))

Session Classification: Plenary Session Monday