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HEPExplorer, an interactive visualization tool for pyhf HistFactory workspaces.

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HEPExplorer is a web based viewer for high energy particle physics that allows users to view various types of plots from data formatted as HistFactory workspaces. This simple tool provides an easy-to-use and convenient way to generate plots, perform fits, and to investigate the impact of various parameters on the model performance using HistFactory workspaces.

HF Explorer is intended to be a tool for high energy physicists working with HistFactory data. It allows for a quick and easy way to view results and to perform some very basic exploration of model parameters. The benefit of this web based approach is that this tool can be used quickly without any software installation, and it provides a means of easily sharing results via url. It is intended to provide convenience and simplicity over installing and running the pyhf / cabinetry tools locally via command line. This type of tool is intended to encourage collaboration by encouraging data sharing and interaction.

Benefits:
Easy to use workspace visualization.
No software installation required.
Runs on any internet connected device.
Easily share results via url.

Features:
Display histograms.
Display pull plots.
Display and interact with model parameters.
Perform fits.
Lock selected model parameters during the fit process.
Sort model parameters by name or by importance / impact.
Compare channel histograms side by side.

The application is available at: https://hepexplorer.net. The code is Open Source (MIT License) and available from: https://github.com/UW-Madison-DSI/HFExplorer

We look forward to user feedback and to an opportunity to make this simple viewing tool better serve the HEP community.

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