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Modern Machine Learning Tools for Unfolding

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Unfolding is a transformative method that is key to analyze LHC data. More recently, modern machine learning tools enable its implementation in an unbinned and high-dimensional manner. The basic techniques to perform unfolding include event reweighting, direct mapping between distributions and conditional phase space sampling, each of them providing a way to unfold LHC data accounting for all correlations in many dimensions. We describe a set of known and new unfolding methods and tools and discuss their respective advantages. Their combination allows for a systematic comparison and performance control for a given unfolding problem.

Significance

References

Experiment context, if any

Primary authors: BUTTER, Anja (Centre National de la Recherche Scientifique (FR)); NACHMAN, Ben (Lawrence Berkeley National Lab. (US)); MARIÑO VILLADAMIGO, Javier; HUETSCH, Nathan (Heidelberg University, ITP Heidelberg); DIEFENBACHER, Sascha (Lawrence Berkeley National Lab. (US)); HEIMEL, Theo (Heidelberg University); PLEHN, Tilman; MIKUNI, Vinicius Massami (Lawrence Berkeley National Lab. (US))

Presenter: MARIÑO VILLADAMIGO, Javier

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