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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

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