Contribution ID: **116** Type: **Flashtalk with Poster**

ML-based Unfolding Techniques for High Energy Physics

Tuesday, 30 April 2024 13:36 (3 minutes)

Particle physics detectors introduce distortions in the observed data due to their finite resolution and other experimental factors, the task of correcting for these effects is known as unfolding. While traditional unfolding methods are restricted to binned distributions of a single observable, recently proposed ML-based methods enable unbinned, high-dimensional unfolding over the entire phase space. In this talk I will introduce some popular methods and present recent work where we compare their strengths and weaknesses as well as benchmark their performance. We find that they work well and are ready for wide-spread use within experiments.

Primary author: HUETSCH, Nathan (Heidelberg University)

Presenter: HUETSCH, Nathan (Heidelberg University)

Session Classification: 1.3 Simulation-based inference

Track Classification: Session A