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How to train taggers on data

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In the current era of high energy experiments, we are faced with an overwhelming amount of data and the limiting uncertainty in new physics searches can often come from theory and not experiment. In our efforts to develop new approaches to extract complex signals from large backgrounds, BDTs, neural networks and other machine learning techniques are becoming increasingly significant. These tools allow us to find patterns in data that would be impossible with a simple cut-and-count approach. In this work we use deep learning tools to develop and validate a new physics tagger that can be trained on data and does not rely on specific models of new physics.

Authors: THOMPSON, Jennifer (ITP Heidelberg); PLEHN, Tilman; KASIECZKA, Gregor (Hamburg University (DE))

Presenter: THOMPSON, Jennifer (ITP Heidelberg)

Session Classification: Machine Learning