Event-level Anomaly Detection methods using reconstruction error and likelihood

Friday 17 July 2020 17:00 (20 minutes)

This talk presents a summary of our tested anomaly detection models. We are studying the performance of two approaches on the LHC Olympics datasets, one based on Adversarial Autoencoders and the other using a Normalizing Flows method (arxiv:2003.13913). Combining those methods with traditional "bump-hunting" algorithms (https://github.com/lovaslin/pyBumpHunter) , we attempt to uncover the mysteries of the LHCO Black boxes.

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