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Uncertainty Quantification and Anomaly Detection with Evidential Deep Learning

Wednesday 6 November 2024 11:50 (20 minutes)

Evidential Deep Learning (EDL) is an uncertainty-aware deep learning approach designed to provide confidence (or epistemic uncertainty) about test data. It treats learning as an evidence acquisition process where more evidence is interpreted as increased predictive confidence. This talk will provide a brief overview of EDL for uncertainty quantification (UQ) and its application to jet tagging in HEP. I will also discuss connections between UQ and anomaly detection (AD) to describe some on-going work on improved AD using EDL methods.

Track

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