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Deep Learning the QCD of Quark-Gluon Tagging

Wednesday, July 23, 2025 2:40 PM (20 minutes)

Established Machine learning taggers are a perfect challenge for explainability concepts in a fundamental physics context. For the theoretically challenging quark-gluon tagging, we first identify a small set of learned latent features that correlate strongly with physics observables. Then we use symbolic regression to derive compact analytic expressions to approximate the tagger in terms of these observables.

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