

Loop Amplitudes from Precision Networks

Thursday 3 November 2022 12:30 (20 minutes)

Evaluating loop amplitudes is a time-consuming part of LHC event generation. I will show for di-photon production with jets how simple, Bayesian networks can learn such amplitudes and model their uncertainties reliably. A boosted training of the Bayesian network further improves the uncertainty estimate and the network precision in critical phase space regions. In general, boosted network training of Bayesian networks allows us to move between fit-like and interpolation-like regimes of network training.

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