



ID de Contribution: 24

Type: **Non spécifié**

QCD Theory Meets Information Theory

vendredi 13 mars 2026 12:00 (20 minutes)

We begin by reviewing how NLL accuracy is achieved in modern parton showers—highlighting the recent Sherpa implementation—and then introduce our new information-theoretic matching framework to achieve beyond NLL accuracy. By minimizing a Kullback–Leibler functional under constraints set by precision QCD input observables (including theory uncertainties), we embed high-order predictions into fully differential, particle-level simulations with strictly positive event weights and the ability to impose multiple observable constraints simultaneously. As a proof of concept, we apply the method to the distributions in e^+e^- collisions, revealing the overlooked role of logarithmic moments of thrust and related event shapes.

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Classification de Session: Colliders