

Tony Menzo – HEP Seminar – September 30, 2025

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Title: The journey towards differentiable hadronization models

Abstract: I will discuss recent and ongoing developments related to the construction of machine-learning-based models of hadronization in Monte Carlo event generators. Specifically, I will focus on two complimentary directions: 1. efforts and methods related to solving the inverse problem of hadronization, namely extracting microscopic hadronization dynamics from macroscopic event-level observables, and 2. progress towards fully differentiable hadronization models utilizing 'post-hoc' reweighting frameworks.