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Using machine-learning to explore hadron collisions

Tuesday 25 October 2022 12:00 (30 minutes)

In this talk, we explain how machine-learning techniques (in particular, neural networks) can be applied to reconstruct the parton kinematics. We use as a reference process the production of pion+photon in hadron collisions, although the methodology can be easily extrapolated to any process. Besides reproducing results available in the literature, we provide a practical strategy to estimate the error associated with the reconstruction. These tools could be implemented in heavy ion collisions, in order to shed light to the laws governing the microscopic behaviour of Nature.

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