

Exploring High-Purity Multiparton Scattering at Hadron Colliders

In this talk I present a strategy to optimally disentangle multi-parton interactions from the primary scattering in a collision. The strategy enables probes of multi-parton interactions significantly beyond the state of the art, including their characteristic momentum scale, the interconnection between primary and secondary scatters, and the pattern of three and potentially even more simultaneous hard scatterings. This opens a path to powerful new constraints on multi-parton interactions for LHC phenomenology and to the investigation of their rich field-theoretical structure.

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