

DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



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Photo-production at NLO QCD in Sherpa

Tuesday 28 March 2023 09:20 (20 minutes)

Photoproduction is an important mode for production of jets and electro-weak particles at lepton–lepton and lepton–hadron colliders and allow for interesting studies of exclusive production at hadron–hadron colliders. In this talk, I will review recent efforts of extending the Sherpa event generator to include calculation of photoproduction for electron and proton beams, including the simulation of underlying events. The framework is validated using data of jet production at the HERA and LEP experiments and lepton production at the LHC. I will then discuss the advances towards achieving matched NLO accuracy and fully capturing the dynamics of inclusive and exclusive photoproduction at the different colliders.

Submitted on behalf of a Collaboration?

No

Participate in poster competition?

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