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New insights on the lepton angular distributions in the Drell-Yan process and Z-boson production at the LHC

Wednesday 26 June 2019 09:30 (25 minutes)

The lepton angular distributions of the Drell-Yan process in fixed-target experiments and the Z-boson production at colliders are investigated by an intuitive geometric approach together with perturbative QCD calculations. We show that the main features of the kinematic dependencies of the lepton angular distributions can be well understood in the geometrical approach. Implications of this approach on the rotational invariance of the angular coefficients, the behavior of the coefficients for Z plus jets events, and the angular distributions of other hard processes will be presented. This talk is based on results presented in the following papers:

Phys. Lett. B758 (2016) 384;
Phys. Rev. D 96 (2017) 054020;
Phys. Lett. B789 (2019) 356;
Phys. Rev. D 99 (2019) 014032

Additional comments

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