

Azimuthal angle distributions of leptons in the Wigner function approach

Tuesday 12 December 2023 12:15 (30 minutes)

We revisit the Wigner function approach to the impact parameter dependent dilepton pair production developed in [M. Klusek-Gawenda, WS, A. Szczurek Phys.Lett.B 814 (2021) 136114]. We study the distribution of the angle between difference and sum of lepton transverse momenta, and show how it relates to the orbital angular momentum of leptons. The dependence on impact parameter is discussed, and we also present the different components of the Wigner function in the t -channel. A brief comparison to similar angular distributions in diffractive quark pair production will be presented.

Primary author: SCHAEFER, Wolfgang

Presenter: SCHAEFER, Wolfgang

Session Classification: Vector meson photoproduction

Track Classification: Session 2: Two-photon physics