



Contribution ID: 6

Type: **not specified**

The Sivers effect in atomic Compton scattering

Thursday, 12 June 2025 10:10 (35 minutes)

In this talk I present a QED-based analog of the Sivers effect in QCD. In particular, Compton scattering off an ionized Helium-4 target is used as a process to access the Sivers effect for the electron in the atomic target. To account for the motion of the bound electron in the Helium target, hydrogen-like wave functions in momentum space are employed.

Both the unpolarized TMD distribution function and the Sivers function for the electron bound in the target are calculated. Predictions for the cross section and for the single spin asymmetry are discussed.

Primary author: SIGNORI, Andrea (Istituto Nazionale di Fisica Nucleare)

Presenter: SIGNORI, Andrea (Istituto Nazionale di Fisica Nucleare)

Session Classification: Single spin asymmetries