



Contribution ID: 276

Type: **Parallel Session Talk**

## Longitudinal double-spin asymmetries in semi-inclusive deep-inelastic scattering of electrons and positrons by protons and deuterons

*Tuesday 9 April 2019 08:30 (17 minutes)*

A comprehensive collection of results on longitudinal double-spin asymmetries is presented for charged pions and kaons produced in semi-inclusive deep-inelastic scattering of electrons and positrons on the proton and deuteron, based on the full HERMES data set. The dependence of the asymmetries on hadron transverse momentum and azimuthal angle extends the sensitivity to the flavor structure of the nucleon beyond the distribution functions accessible in the collinear framework. No strong dependence on those variables is observed. In addition, the hadron charge-difference asymmetry is presented, which under certain model assumptions provides access to the helicity distributions of valence quarks.

**Primary author:** SCHNELL, Gunar (University of the Basque Country UPV/EHU)

**Presenter:** SCHNELL, Gunar (University of the Basque Country UPV/EHU)

**Session Classification:** WG6: Spin and 3D structure

**Track Classification:** WG6: Spin and 3D structure