Contribution ID: **51** Type: **not specified**

Components of polarization-transfer to a bound proton in a deuteron measured by quasi-elastic scattering

Wednesday, 11 July 2018 17:00 (30 minutes)

I will report measurements of the transverse (Px and Py) and longitudinal (Pz) components of the polarization transfer to a bound proton in the deuteron via thereaction, over a wide range of missing momentum. The measurements were done at the Mainz Microtron (MAMI). A precise determination of the electron beam polarization reduces the systematic uncertainties on the individual components, to a level that enables a detailed comparison to a state-of-the-art calculation of the deuteron that uses free-proton electromagnetic form factors. We observe very good agreement between the measured and the calculated Px/Pz ratios, but deviations of the individual components. Our results cannot be explained by medium modified electromagnetic form factors. They point to an incomplete description of the nuclear reaction mechanism in the calculation.

Presenter: Prof. MARDOR, Israel (Tel Aviv University)

Session Classification: Spin physics experiments II