



Contribution ID: 238

Type: Oral presentation

The GPD program at COMPASS II

Thursday, 1 May 2014 08:55 (20 minutes)

The high energy polarised muon beam available at CERN with the option of using positive or negative muons with opposite polarisation gives COMPASS an excellent possibility to study generalised parton distributions via deeply virtual Compton scattering and hard exclusive meson production.

In a first step we will use an unpolarised proton target to measure the x_{Bj} -dependence of the t -slope of the DVCS cross section to observe a possible shrinkage of the nucleon with increasing x_{Bj} . Furthermore, the beam charge and spin difference and sum will be measured over a wide kinematic range to determine the Compton form factor related to real and imaginary parts of the GPD H . As a second step we consider to use a transversely polarised proton target to collect data to constrain the GPD E .

An exploratory measurement was performed in 2012 with the COMPASS spectrometer upgraded with a proton recoil detector surrounding a 2.5 m long liquid hydrogen target and an enlarged acceptance for photon detection. The status of the analysis and the perspectives for the planned measurements in 2016/17 will be discussed.

Primary author: KABUSS, Eva-Maria (Johannes Gutenberg-Universitat)

Presenter: KABUSS, Eva-Maria (Johannes Gutenberg-Universitat)

Session Classification: WG6+WG7 Joint Session

Track Classification: WG6+WG7 Joint Session