

## COMPASS polarized Drell-Yan experiment

*Tuesday 15 September 2015 10:00 (30 minutes)*

The COMPASS experiment at CERN is a universal facility which can operate with both muon and pion beams as well as with the longitudinally/transversely polarized solid target. The main goal of the experiment is to study the spin structure of the nucleon. The availability of pion beam provides an access to the Drell-Yan physics, i.e. to the process where quark(target)-antiquark(beam) pair annihilates electromagnetically with a production of dilepton pair. Study of angular dependencies of the Drell-Yan process cross-section allows us to access to parton distribution functions (PDFs) or, more precisely, a convolutions of various PDFs. The possibility to use a transversely polarized target together with negative pion beam is an important feature of the COMPASS Drell-Yan experiment. This experiment has just started in 2015 and will provides us with unique data on transverse momentum dependent (TMD) PDFs.

In this presentation the role of the Drell-Yan experiment at COMPASS in TMD PDFs study, with a comparison to semi-inclusive deep inelastic scattering experiment, will be discussed. The experimental set-up in 2015 and its performance, that includes apparatus acceptance and kinematic range as well as hadron absorber and the polarized target, will be presented.

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