

# Azimuthal Angular Distributions using Unpolarised Drell-Yan data from COMPASS at CERN

Márcia Quaresma

*LIP - Laboratório de Instrumentação e Física Experimental de Partículas*

## Abstract

Pion-Induced reactions offer an unique opportunity to test the Quantum ChromoDynamics improved quark-parton model using angular distributions of unpolarised Drell-Yan process. Early experiments clearly showed a strong violation of the Lam-Tung relation from their angular distributions. This violation may indicate that the QCD mechanism needs to go beyond collinear by including the intrinsic quark transverse momentum dependence. This can be achieved by using the Transverse Momentum dependent Boer-Mulders function, which describes the correlation between the quarks transverse spin and the transverse momentum of the parent nucleons. COMPASS, a fixed target experiment located in the SPS accelerator at CERN, collected Drell-Yan data using a negative pion beam, at 190 GeV/c, impinging on a transversely polarised ammonia and unpolarised tungsten targets. Some recent results will be presented and the impact of these data will be discussed.