## 22nd International Spin Symposium



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## **Exclusive single-photon muoproduction at COMPASS**

Tuesday 27 September 2016 11:30 (25 minutes)

Investigation of GPDs and TMDs represents one of the major goals of the COMPASS-II program. Together, GPDs and TMDs provide the most complete description of the partonic structure of the nucleon. GPDs are experimentally accessible via lepton-induced exclusive reactions, in particular DVCS and DVMP. At COMPASS, these processes are investigated using a 160 GeV high intensity muon beam and a 2.5 m long liquid hydrogen target. In order to optimize the selection of exclusive reactions at these energies, the target is surrounded by a new barrel-shaped time-of-flight system to detect the recoiling particles. The pure DVCS cross-section and its |t|-dependence are extracted from the sum of cross-sections measured with opposite beam charges and polarizations. From this measurement, the first model-independent estimate of the transverse size of the nucleon in the uncharted xBj domain from 0.01 to 0.15 will be given.

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