



Contribution ID: 4

Type: **not specified**

The DVCS experiment in Hall C at Jefferson Lab with the new NPS detector

Tuesday, 17 September 2019 16:30 (25 minutes)

Deeply Virtual Compton Scattering (DVCS) is the simplest exclusive process to access Generalized Parton Distributions (GPDs). GPDs encode the correlation between the spacial distribution of partons inside the nucleon and their momentum. An upcoming DVCS experiment in Hall C at Jefferson Lab (Virginia, U.S.A.) will provide the highest precision data in a vast Q^2 - x_B region accessible by a 11 GeV electron beam. It will further test the leading twist dominance of the observables and get more precise data in lower x_B region needed for the full mapping of GPDs. A Neutral Particle Spectrometer (NPS) is being developed for this experiment. It consists of an electromagnetic calorimeter made of 1080 PbWO_4 crystals. We will present the status of the detector R&D and construction, as well as simulation results of its performance.

Author: KO, Ho San (Paris-Sud University)

Co-author: MUNOZ CAMACHO, Carlos

Presenter: KO, Ho San (Paris-Sud University)

Session Classification: Parallel 1

Track Classification: Hadronic structure