Contribution ID: **81** Type: **Oral contribution**

Resistive Strip Micromegas Tracker for CLAS12 Experiment

Tuesday, October 13, 2015 10:00 AM (20 minutes)

The Micromegas vertex tracker (MVT) of the future Cebaf Large Acceptance Spectrometer for the 12 GeV (CLAS12) accelerator upgrade in Hall B at Jefferson Lab will be installed at the end of this year.
The MVT consists of 2 cylindrical layers, 6 in the final phase, for the barrel part and 6 identical disks for the forward part. Micromegas bulk technology associated with resistive strips has been used. For the barrel detectors, the low material budget (0.33% of X0) offers a competitive alternative for central trackers with high-rate capabilities of the order 60kHz/strip.

The MVT final design has been validated and its construction is in progress after R&D on light material mechanics, long coaxial cables and large input capacitance electronics.

We will report on performance studies of both barrel and forward detectors using data taken from a cosmic ray test bench read out by the nominal electronics based on a new ASIC - Dream (Dead-timeless Readout Electronics ASIC for Micromegas). 2D efficiencies, time and spatial resolutions and operating parameters will be shown.

Primary author: Dr ATTIÉ, David (CEA Saclay)

Co-authors: Mrs LAHONDE-HAMDOUN, Caroline (CEA Saclay); Dr SABATIÉ, Franck (CEA Saclay); Mr GEORGES, Frédéric (CEA Saclay); Dr BALL, Jacques (CEA Saclay); Mr RIALLOT, Marc (CEA Saclay); Dr VANDEN-BROUCKE, Maxence (CEA Saclay); Mr MEUNIER, Olivier (CEA Saclay); Mr GRANELLI, Rémi (CEA Saclay); Dr PROCUREUR, Sebastien (CEA-Saclay); Mr AUNE, Stephan (CEA Saclay); Mr MOUDDEN, Yassir (CEA Saclay)

Presenter: Dr VANDENBROUCKE, Maxence (CEA Saclay)

Session Classification: Contributed talks

Track Classification: New Developments in MPDGs