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## Resistive Strip Micromegas Tracker for CLAS12 Experiment

*Tuesday, 13 October 2015 10:00 (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  $X_0$ ) 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.

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