## MPGD 2013 & 11th RD51 collaboration meeting



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## **Progress on CLAS12 Micromegas detectors**

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The electron accelerator of the Thomas Jefferson Laboratory (Virginia, USA) will soon be upgraded to deliver 12 GeV high intensity beams. This increase in the performance will give the opportunity to study the nucleon structure with an unprecedented accuracy. To meet this end, new equipments will be installed in the experimental areas, particularly in the Hall B/CLAS spectrometer. One of the most challenging aspects is the installation of a Central Tracker surrounding the target, dedicated to the detection of particles emitted at large angles. Micromegas detectors have been chosen to be a major element of this new equipment, due to their high rate capability as well as their robustness and light material. Using the recent bulk technology, one part of these gaseous detectors are planned to be assembled in thin cylinders to maximize the acceptance. We report on the performance of a curved resistive Micromegas full size prototype. The other part will be composed of 0.1 m² flat resistive Micromegas. We present here a detailed comparison between such a detector produced by the CIREA company and the same produced by the CERN workshop. The study also includes systematic measurements of the performance of resistive Micromegas, in particular ageing effects and the improvement of the S/N ratio without the usual protections on the electronics.

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