

Abstract Submitted
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Characterization of the Resistive Micromegas Muon Detectors

ALEXANDRA MOSKALEVA, California State University, Sacramento — The MICRO-MESH-GASEOUS Structure (Micromegas) is a particle detector that is a candidate for the ATLAS muon system upgrade. It is a gaseous particle detector that makes use of printed circuit boards for micron-sized readout strips. This creates the potential for high spatial resolution, high rate capability, large sensitive area, operational stability, and radiation hardness. While the MicroMegas detector is being researched in many laboratories, the CERN MicroMegas team has developed a novel resistive design that alleviates many problems associated with the detector such as high spark rate. Several resistive MicroMegas designs were tested to determine their gain and transparency. With the resistive chambers, we observed high gains and transparency, with a minimal spark rate.

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