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The Muon ATLAS MicroMegas Activity

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The luminosity upgrade of the Large Hadron Collider at CERN (sLHC) foresees a luminosity increase by a factor five compared to the LHC. To cope with the corresponding increase in background rates, the Muon System of the ATLAS experiment at CERN will likely need major changes in the very forward/backward regions. The Muon ATLAS MicroMegas Activity (MAMMA) is focused on the development and testing of large-area muon detectors based on the bulk-Micromegas technology as candidates for such an upgrade. In order to overcome the spark problem a novel protection scheme using resistive strips above the readout electrode has been developed. This technology has undergone extensive tests with hadron beams at the CERN-SPS, X-rays in the lab, as well as tests in a neutron beam at the TANDEM accelerator of the N.C.S.R. "Demokritos'. In addition a set of prototype chambers have been installed in the ATLAS cavern and are taking data in real LHC conditions. Results on the performance of these chambers will be presented.

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