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## **Performance studies of Micromegas detectors for the ATLAS experiment.**

Micromegas is one of the detector technologies that have been chosen for precision tracking and trigger purposes for the upgrade of the forward muon detectors of the ATLAS experiment in view of the LHC luminosity increase. We present a survey of the detector performances obtained in recent test beam campaigns with high energy particle beams. Results on spatial and angular resolution for perpendicular and inclined tracks, efficiency, time resolution, as well as the performance and operation of micromegas chambers in a magnetic field will be presented and compared to simulation. An overview of detector performance in neutron beam and after exposures to x-ray gammas and alpha particles will also be presented.

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