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The micromegas project for the ATLAS upgrade

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Micromegas is one of the detector technologies (along with the TGC-Thin Gap Chambers) that has 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 prototype micromegas detector performances obtained in recent test beam campaigns with high energy hadron beams at CERN. 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 after neutron, X-ray, gammas and alphas exposure will also be presented.

Presenter: IAKOVIDIS, George (National Technical Univ. of Athens (GR)) **Session Classification:** Monday (MPGD mid-morning session)