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# Paschen curves measurement made with real Micromegas electrodes using a specific new tool.

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Thanks to a tool specially developed for that, we measured Paschen curves with real resistive Micromegas electrodes, both real mesh and real resistive anode layer. The resistive Micromegas structure and geometry studied correspond to those of the New Small Wheel (NSW) detector upgrade project of the ATLAS experiment at CERN.
Also these Paschen curves have been obtained for different gas mixtures: Ar:CO2 93:7 or Ar:CO2:iso-butane 93:5:2 and also pure Argon.
The measurements have been made on different resistive anode layers corresponding to different NSW resistive PCB, taken from the real production batch. In particular, we have done these measurements for different resistive PCB, i.e. with different local resistivity and also different global resistances, where the so called global resistance is the one measured from the tested position w.r.t. to the HV polarisation connexion of the resistive (strips) layer.
The tool we developed gives us the possibility to do these measurements for a distance of the Micromegas mesh to the resistive anode going from 50 to 250 microns or more.
With this new tool, we are also able to test other geometries or configurations of resistive Micromegas.

**Authors:** SCHIOPPA, Marco (Universita della Calabria e INFN (IT)); SCHUNE, Philippe (Université Paris-Saclay (FR))

**Presenter:** SCHUNE, Philippe (Université Paris-Saclay (FR))

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