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ATLAS NSW sTGC Pad Efficiency

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The New Small Wheel (NSW) detectors have recently been added to the ATLAS muon end-cap system. The detector is composed of two technologies: Micromegas (MM) and small-strip Thin Gap Chambers (sTGC). The sTGCs are fast tracking detectors that will allow ATLAS to veto fake muons and maintain a low trigger threshold. An sTGC quadruplet is composed of four gas volumes where an individual gas volume consists of thin wires centred between two cathode planes. One plane consists of fine pitched strips and the other of larger pads. Coincidences of pads across at least 3 layers are used for triggering the NSW.

The sTGC pad trigger was tested during the surface commissioning of one NSW via cosmic ray tests. In this talk I will discuss my work calculating the pad efficiency from cosmic and test beam data.

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Please select: Experiment or Theory

Experiment

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