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WITHDRAWN - Results of the 2018 ATLAS sTGC Beam Tests

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After a successful three-year run at 13 TeV, the Large Hadron Collider has paused operation, and will not circulate beams again until 2021. During this shutdown period, extensive repairs and upgrades will be made to the LHC and its experiments. For the ATLAS experiment, the major upgrade will be to the muon spectrometer in the form of the New Small Wheels (NSW). The NSW will serve in the Level 1 Trigger and will also provide precision tracking of muons. The NSW will consist of two types of gas detectors: Micromegas and Small-strip Thin Gap Chambers (sTGC). The sTGC quadruplets consist of four layers, with each layer composed of pad and strip cathode boards, with high voltage wires in between. In August and October 2018, beam tests of a production sTGC quadruplet were performed in the H8 beamline of the Super Proton Synchrotron at CERN as well as in the Gamma Irradiation Facility (GIF++) on the H4 beamline to characterize detector response and efficiency while operating under different background conditions. This talk will detail the results of multiple aspects of the beam test.

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