



Contribution ID: 67

Type: **Oral presentation**

## Performance studies of Micromegas detectors in ATLAS with Run3 data

*Thursday 12 October 2023 11:40 (25 minutes)*

The Micromegas detectors are part of the New Small Wheel (NSW) system of the ATLAS experiment, the largest upgrade project of Phase-1. Together with sTGC detectors they provide trigger and tracking capability in the innermost station of the end-cap part of the Muon spectrometer.

The Micromegas detector of ATLAS cover an active area of about  $1280 \text{ m}^2$ , has 1024 HV channels and 2.1 M readout channels, representing the largest Micro-Pattern Gaseous Detector system ever built.

The two NSW have been installed in ATLAS in time for the start of Run3, went through a detailed commissioning phase during 2022 and are now contributing to the ATLAS data taking.

In this presentation, after an introduction of the NSW, a series of latest results regarding simulations, reconstruction, performance and first data obtained with Run 3 will be reported.

### Is this abstract from experiment?

Yes

### Name of experiment and experimental site

ATLAS <https://atlas.cern>

### Is the speaker for that presentation defined?

No

### Details

The final speaker will be identified later by the Collaboration

### Internet talk

Maybe

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**Session Classification:** Parallel Session 4

**Track Classification:** High Energy Particle Physics