Contribution ID: **49** Type: **Talk**

Rate of the Small-strip Thin Gap Chambers (sTGC's) in the New Small Wheels of ATLAS

Thursday 12 December 2024 15:30 (20 minutes)

The instantaneous luminosity of the Large Hadron Collider at CERN will be increased by about a factor of five with respect to the design value by undergoing an extensive upgrade program over the coming decade. The largest phase-1 upgrade project for the ATLAS Muon System was the replacement of the first station in the forward regions with the New Small Wheels (NSWs) which took place during the long LHC shutdown in 2019-2021. The two Small Wheels cover a positive and negative pseudorapidity acceptance in the range $|\eta|$ = 1.3 to 2.7. Both Small Wheels have been successfully installed in ATLAS in 2021 and took data from p+p collisions at 13.6 TeV in 2022, 2023 and 2024. Along with resistive strips Micromegas, the NSW's are equipped with eight layers of small-strip thin gap chambers (sTGC). The new system is designed to assure high tracking efficiency, reduction of fake trigger rates and precision measurement of muon tracks. In this presentation we will show results on the rates of the sTGC detectors.

Details

Prof. Sonia Kabana

Dear Conference Committee,
Please be aware that the presenters will be chosen by the Muon SC in consultation with the Muon management and relevant system experts. We will communicate the name of the speaker as soon as possible.

Thanks a lot for your time and help.

Best regards,
Francesco Fallavollita for the Muon Speaker Comm.

Is the speaker for that presentation defined?

Yes

Name of experiment and experimental site

ATLAS Collaboration

Is this an abstract from experimental collaboration?

Yes

Internet talk

No

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