

## Ageing experience in Thin Gap Chambers (TGCs)

*Monday 6 November 2023 11:00 (25 minutes)*

The presentation will deal with the numerous irradiation tests performed before the construction of the ATLAS Big-Wheels (BW) TGC's, as well as irradiation tests performed before the construction of the New Small Wheel (NSW) sTGC's. The results achieved by following the charge deposited by MIP's in each individual detector plane after 11 years of operation will be shown. A presentation will be followed by explaining the source of issues that have developed with time, that are mainly related to either chemical effects (independent of radiation) and construction issues, where not always full care was taken during the detector assembly. The conclusions will emphasize that not only irradiation is important in the long term behavior of a wire chamber, but that every detail counts.

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**Session Classification:** Detector operation and performance