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Lorentz angle measurement on ATLAS silicon microstrip sensors

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The Large Hadron Collider (LHC) is planned to be upgraded to High-Luminosity LHC (HL-LHC) by 2023. At the same time, the ATLAS inner tracker will be replaced by an all silicon tracker. During HL-LHC running, strip detectors in the inner tracker will have to withstand radiation doses up to $10^{15} neq/cm^{-2}$. As a result of the radiation damage, the Lorentz angle of the strip sensors is expected to change. In this talk, a test beam setup prepared to measure the Lorentz angle on highly irradiated future ATLAS silicon microstrip sensors will be presented. In this setup, an Alibava readout system and the EUDET beam telescope is used. In addition, Alibava data analysis tools are being implemented in the EUTelescope framework and will be introduced in this talk.

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