Annual Meeting of the Swiss Physical Society 2024



Contribution ID: 35 Type: Talk

[301] Tests and results of the power components of the ATLAS Inner Tracker detector readout system.

Tuesday 10 September 2024 14:00 (15 minutes)

The LHC at CERN will undergo significant upgrades to enhance the collision rate in the High Luminosity LHC (HL-LHC), necessitating improvement of the ATLAS detector regarding higher resolution and efficiency. The Inner Detector will be replaced by the Inner Tracker. The transmission of the data signal will be handled by the Optosystem, managing the data and responsible for the opto-electrical conversion to send the data efficiently from the ATLAS high radiation area. The Powerboard was designed to power the Optosystem by converting the provided voltage to lower levels, suitable for other Optosystem's components. Tests performed on the Powerboard to ensure its good functionality during the HL-LHC runs will be presented.

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Session Classification: Nuclear, Particle- & Astrophysics (TASK)

Track Classification: Nuclear, Particle- and Astrophysics (TASK)