Contribution ID: **125** Type: **Poster**

Front-end electronics for the Mu2e tracker

Monday, 1 August 2022 19:00 (40 minutes)

The Mu2e experiment uses a cylindrical straw tube tracker operated in vacuum to provide a high precision momentum measurement of 105 MeV/c electrons that are the signal of charged lepton flavor violating (CLFV) muon to electron conversion. The tracker is instrumented with custom front-end electronics based on PolarFire FPGAs that sit at the outer radius of the tracker. Each straw is read out at both ends, and precise firmware TDCs allow for time-division based reconstruction of the hit position along the wire. The data is read out over optical fibers by the TDAQ system. The design, testing, and performance of the tracker electronics will be presented.

Attendance type

In-person presentation

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Session Classification: Reception & Poster Session

Track Classification: WG4: Muon Physics