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## Calibration and commissioning of the Mu3e Vertex Detector

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The Mu3e experiment aims to search for the charged lepton flavour violating decay  $\mu^+ \rightarrow e^+e^-e^+$  with an ultimate sensitivity of  $10^{-16}$ . Its Vertex Detector employs ultra-thin

MuPix11 sensors to provide precise tracking with minimal material. During our beam time at PSI this year, we successfully commissioned the detector.

Through Time over Threshold calibration, signal transmission tuning, and in-pixel threshold adjustment, we achieved efficient operation and recorded the first positron

tracks from muon decays. This milestone marks a major step toward physics data taking in 2026.

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