

ICARUS Cathode Nonplanarity

Lane Kashur
26 September 2024



Colorado State University

Detector Calibration

Cathode Nonplanarity

ICARUS's stainless steel cathodes are not perfectly planar

- Some parts bent up to 2 cm
- Similar issues seen in other LArTPCs

This has been seen to negatively impact track reconstruction efficiencies

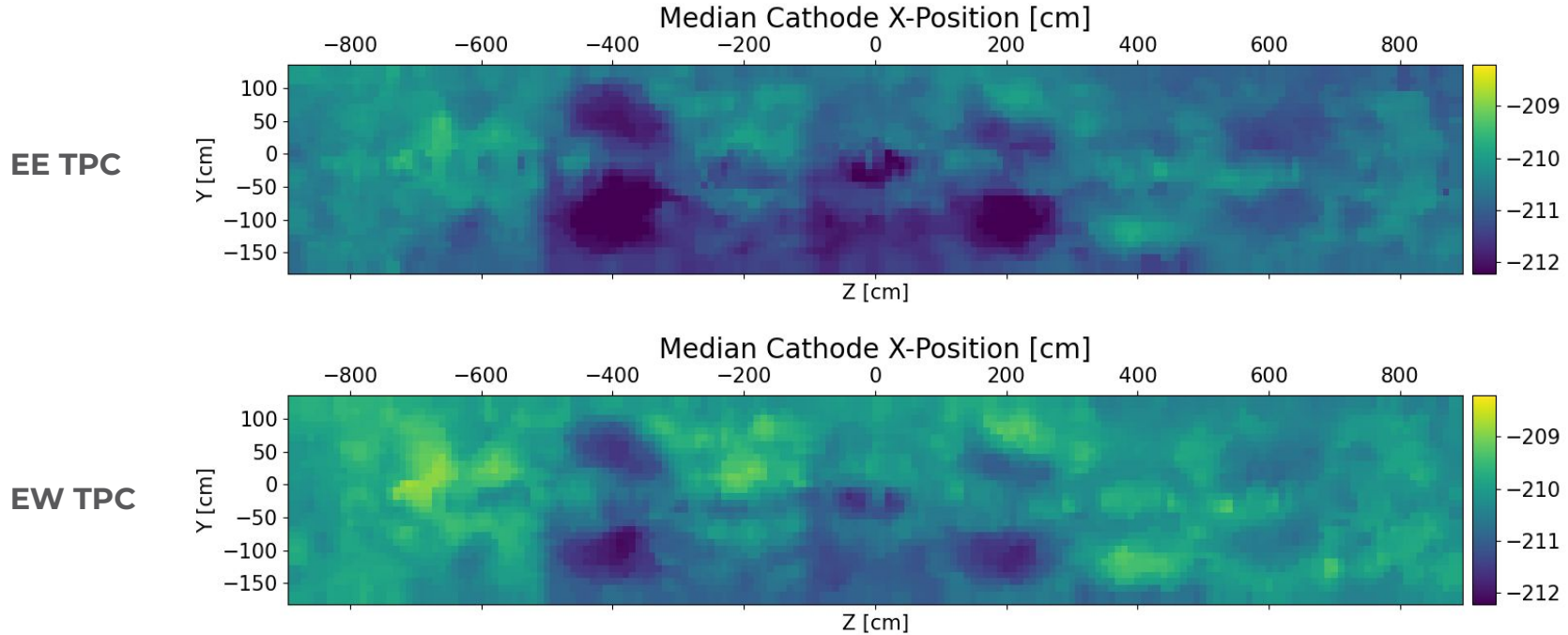
Solution: Create topographic map of each cathode in order to model in simulation

i.e. Change $x_{\text{cathode}} = \text{constant}$ to $x_{\text{cathode}} = f(y,z)$



Detector Calibration

Cathode Nonplanarity



Detector Calibration

Cathode Nonplanarity

