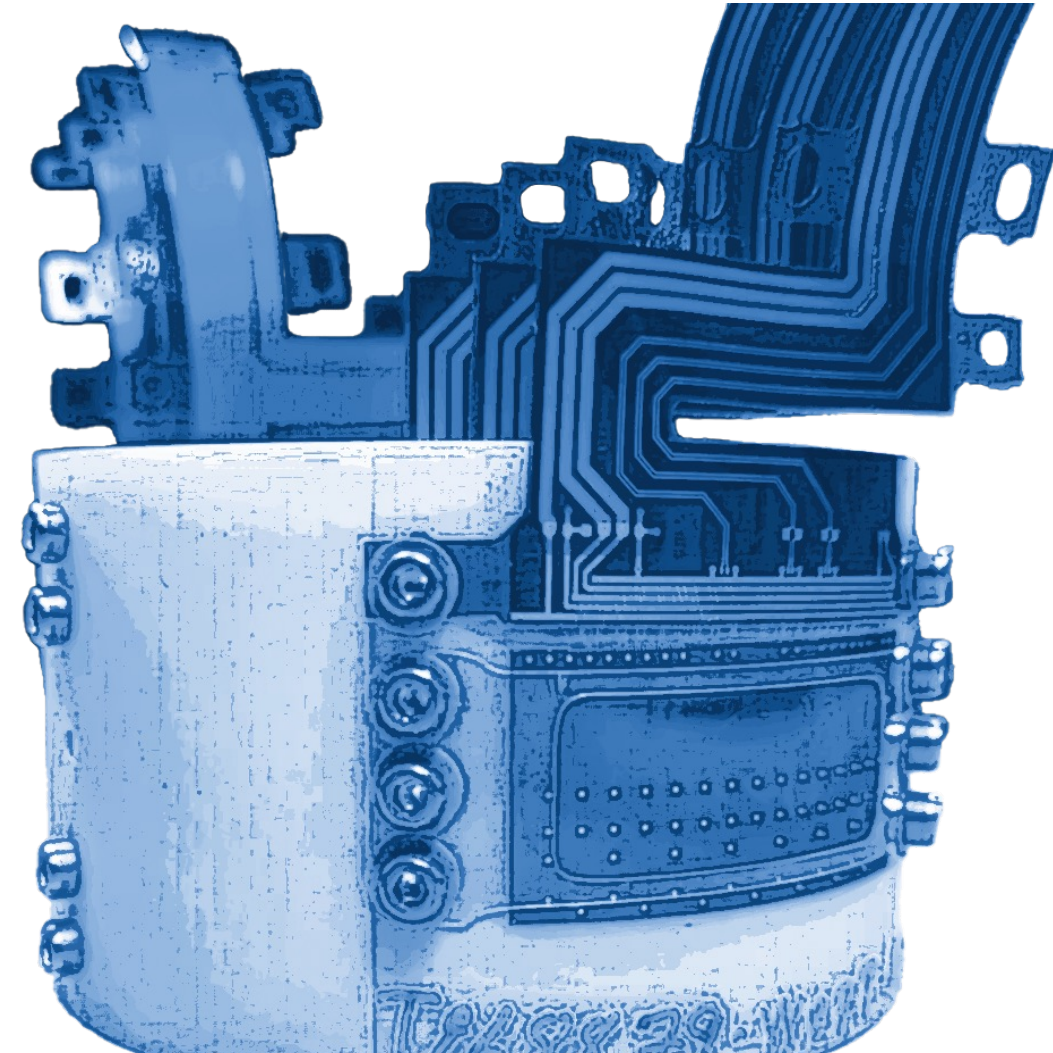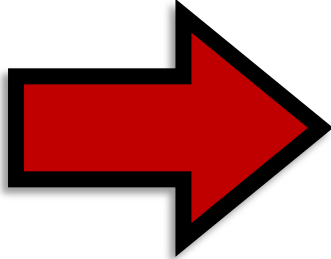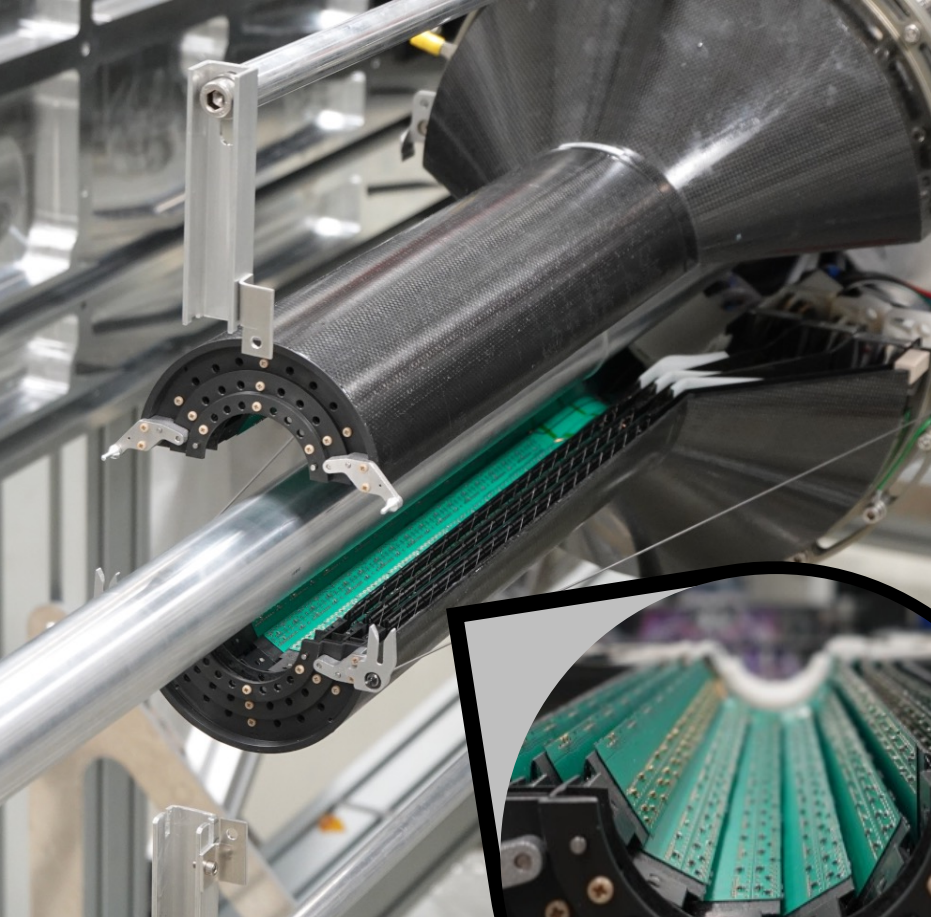# Characterizing Cluster Behavior and Alignment Strategies in Cylindrical MAPS Detectors
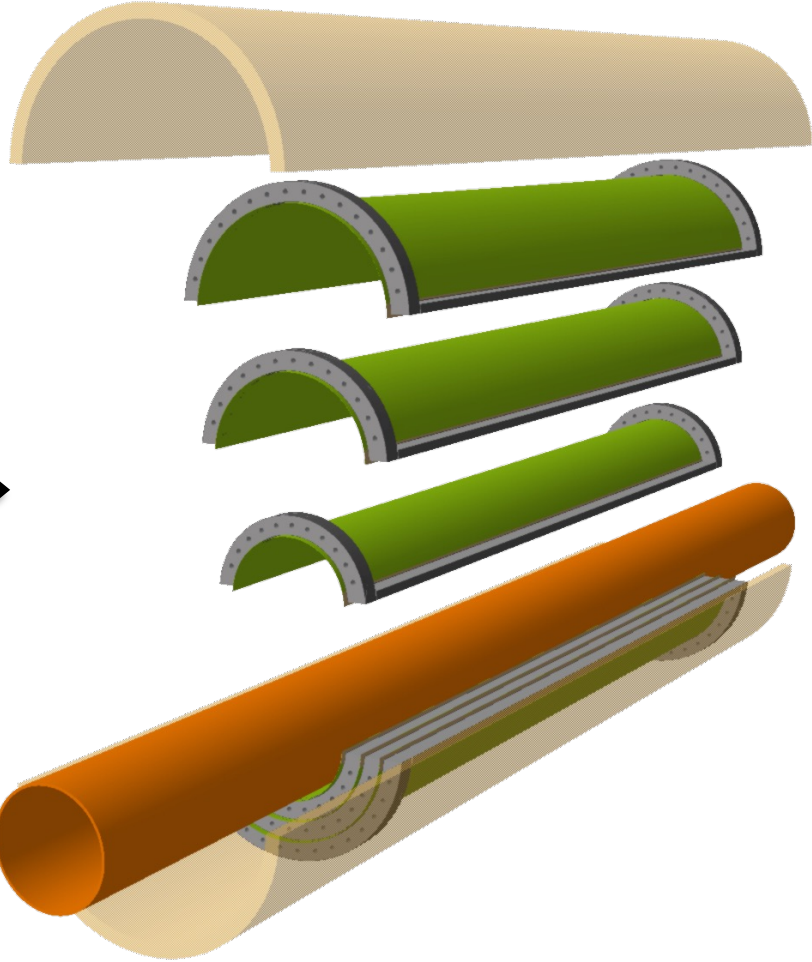
Berkin Ulukutlu on behalf of the ALICE Collaboration

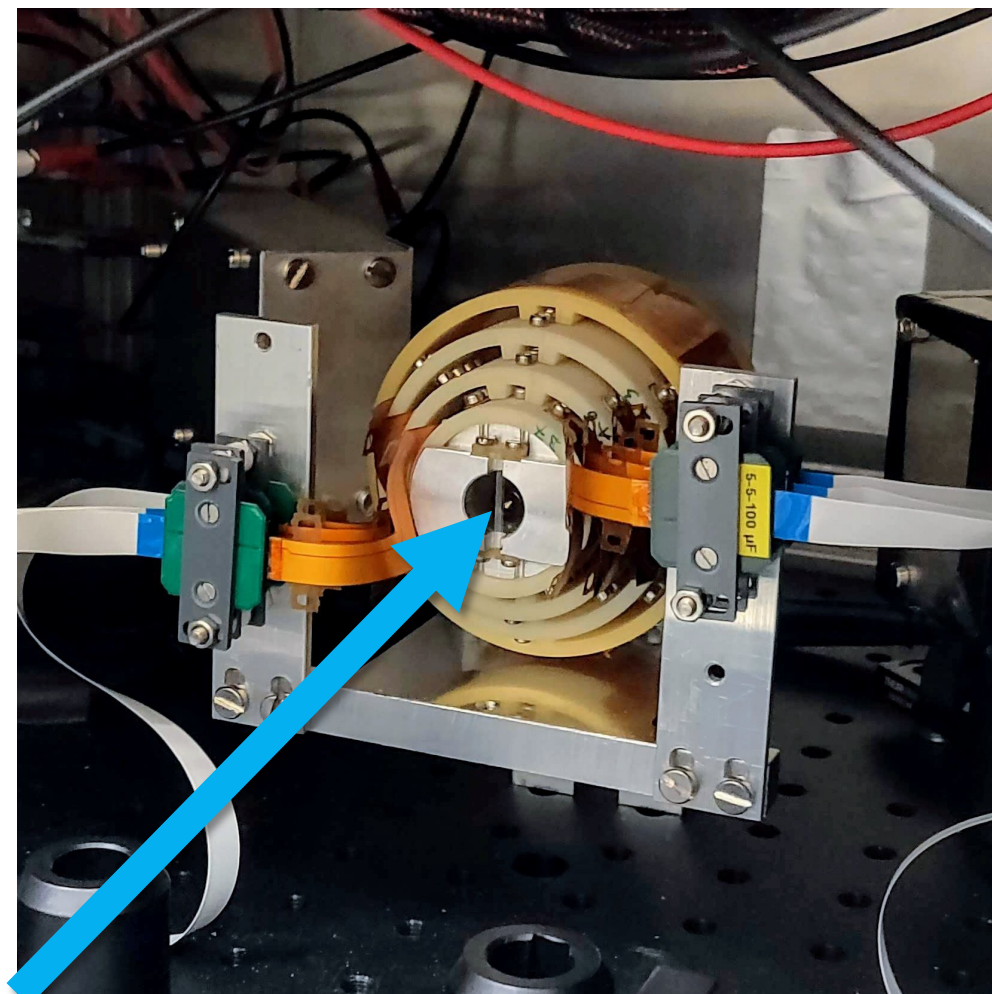60th International Winter Meeting on Nuclear Physics
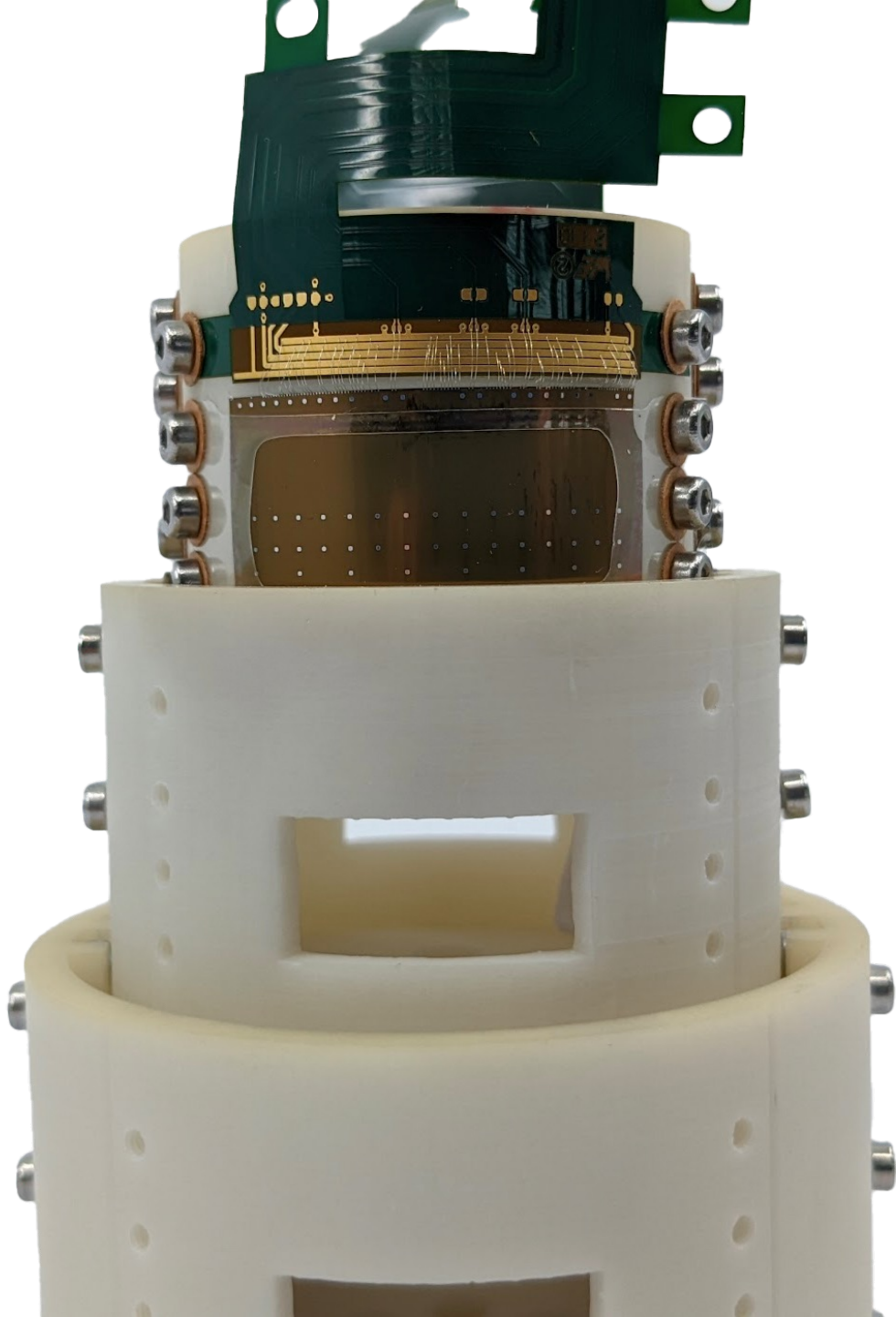
22-26.01.24 Bormio, Italy
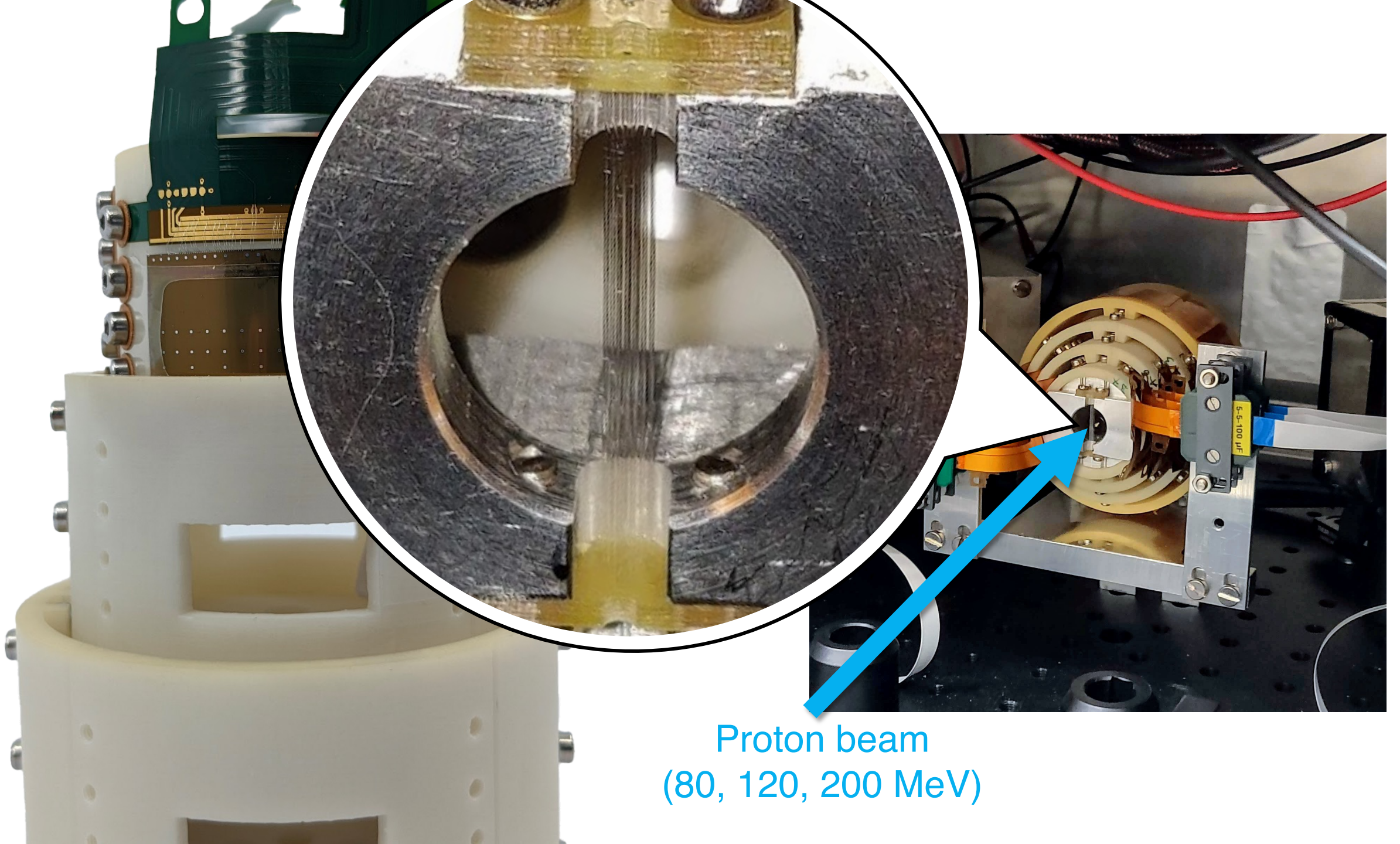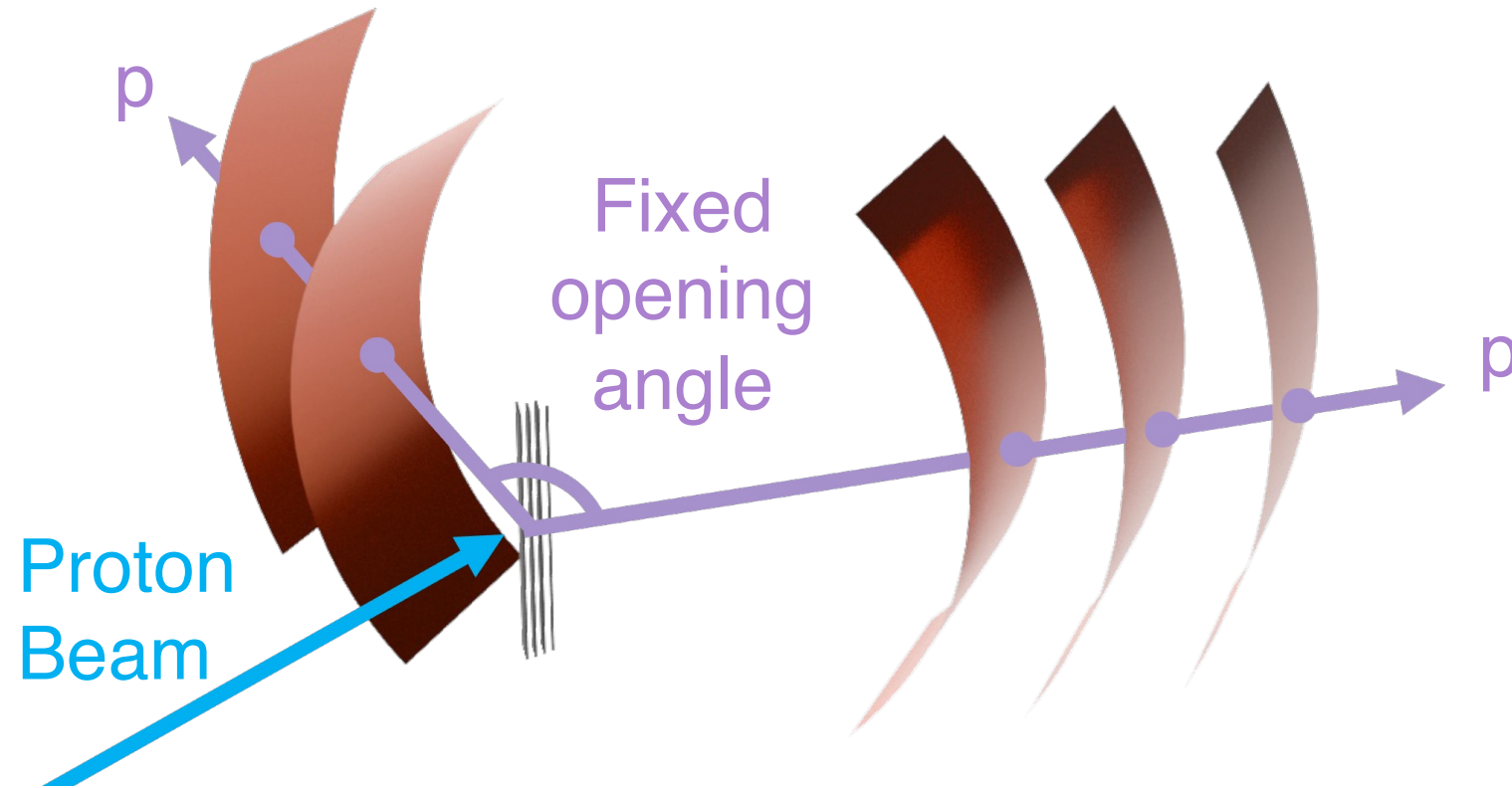
ALICE ITS2 Inner Barrel

ALICE ITS3

Proton beam
(80, 120, 200 MeV)

Proton beam
(80, 120, 200 MeV)

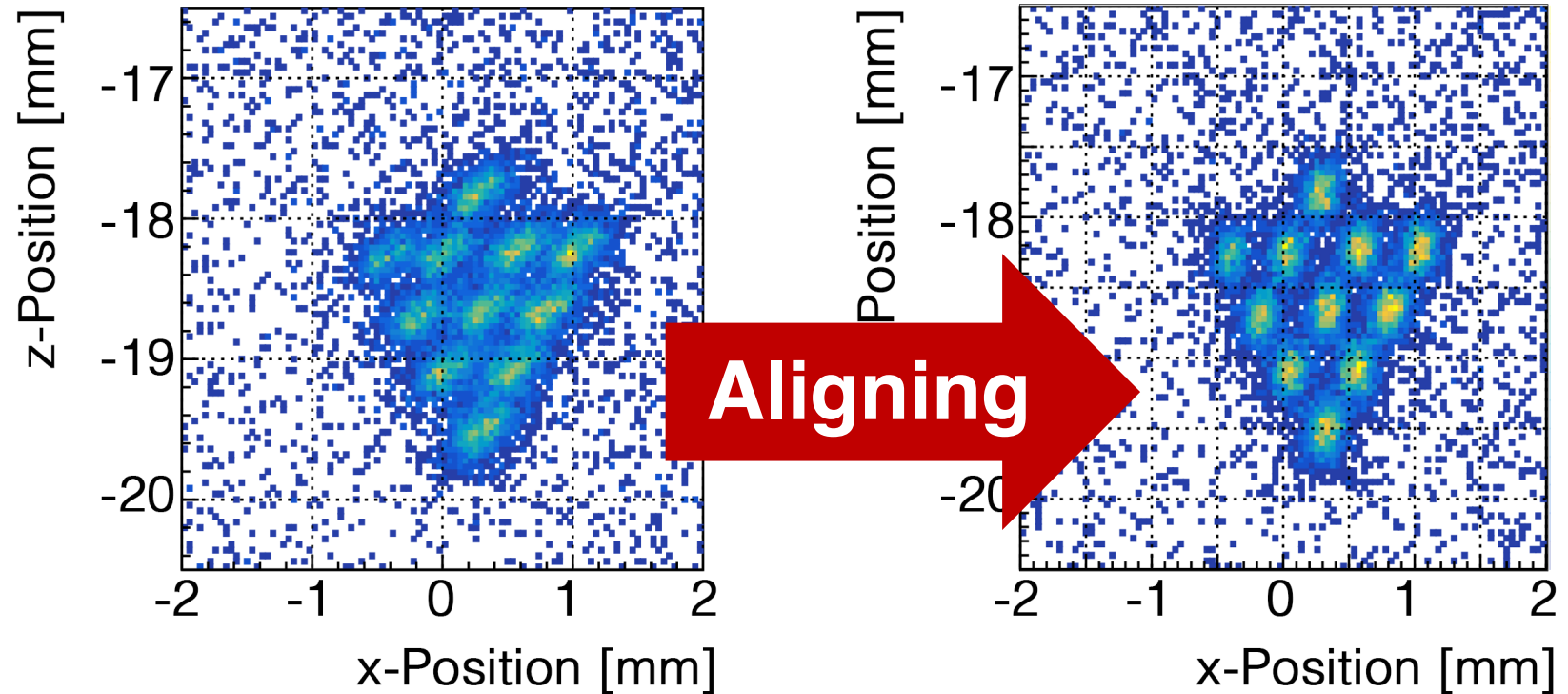# Measuring proton-proton elastic scattering

- Well known kinematics as reference for tracking
- Characterize proton cluster size signature for different energies

Aligning bent detectors can be tricky!

Tested different methods:

- Using kinematic constraints as additional information

- Algorithmic search alignment configuration optimizing resolution

- Train neural network for identifying misalignment
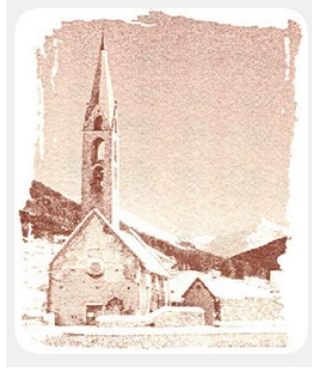
Reconstructed vertex positions

Thank you for your attention!

Looking forward to your questions
in the poster session!