

# ProtoDUNE Geometry Update

M. Tzanov, LSU – Jan 16<sup>th</sup> 2017

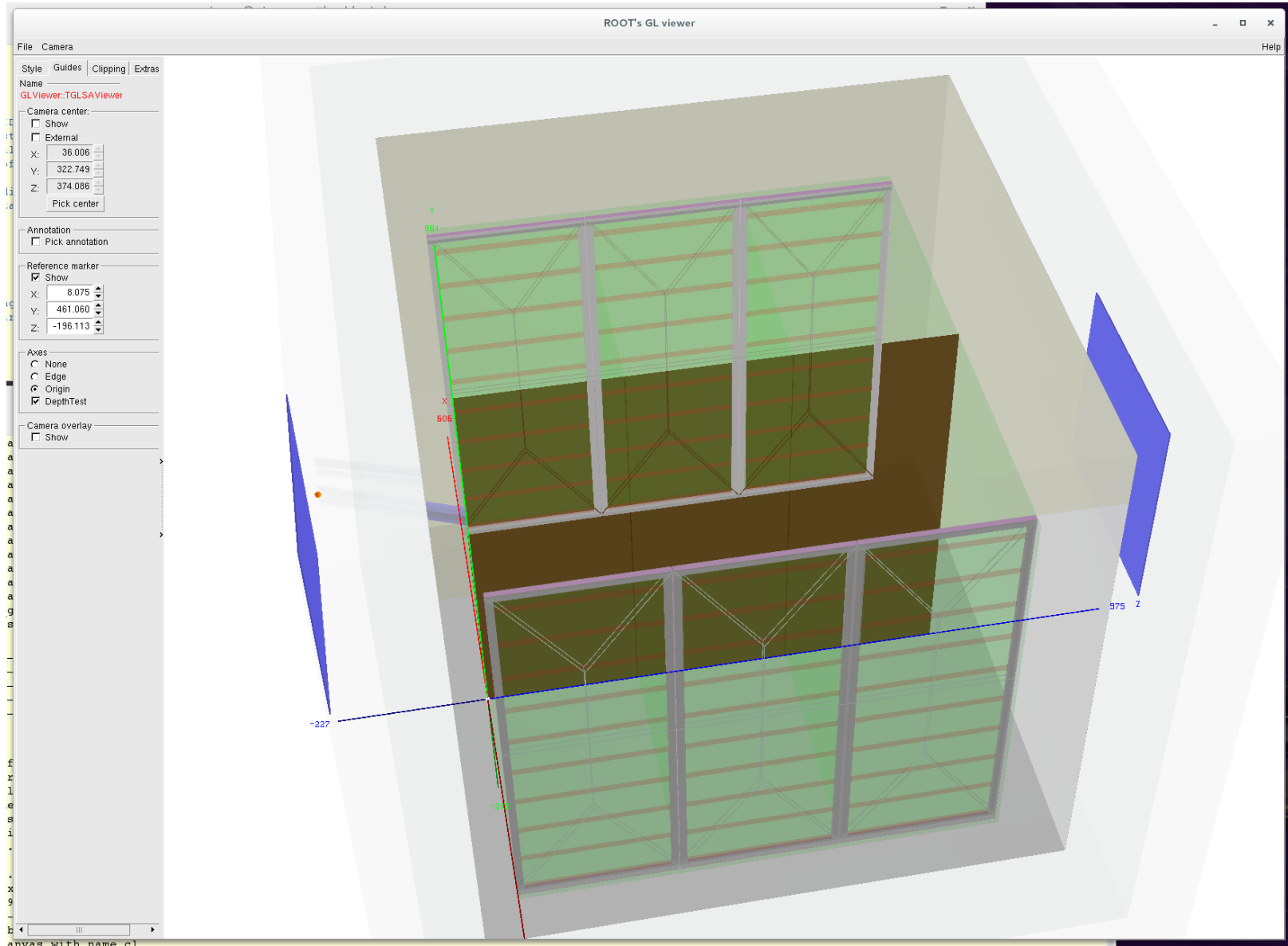
# Status of ProtoDUNE-SP Geometry v3

- Correct dimension for the steel support implemented as 62 cm of steel-air mixture
- Correct dimension for the foam insulation implemented as 80cm of foam padding
- (New) Simple opening in the steel support and foam with 25 cm diameter for beam windows 2 and 3.
- Correct location for both beam windows. In v2 beam window 2 was not in the correct location.
- (New) Simple cosmic ray tracker volumes without segmentation. The size is the same as the size of the modules presented by Ed at the Sept collaboration meeting.

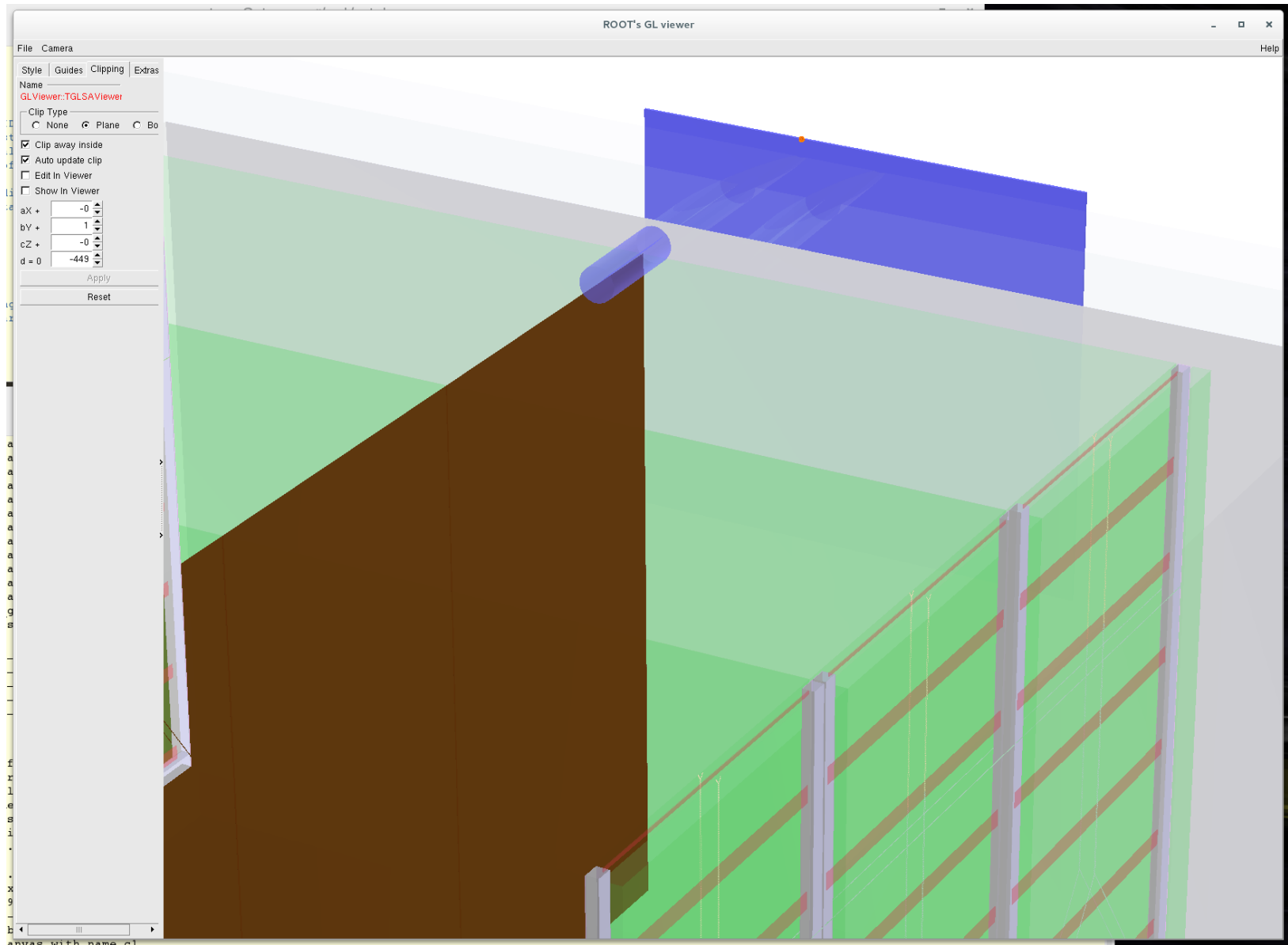
# Changes to the Cryostat and TPC

- Correct inner dimensions of the cryostat  
correct layer of argon on all sides of the TPC  
TPC sits off center in the cryostat
- Correct depth of the gaseous argon
- Latest wire angles, APA and, CPA dimensions
- (New) Beam plug for beam window 3 implemented as a G10 pipe with 25 cm outer diameter and 2.5 mm wall filled with Ni Gas at 1 atm. The beam plug reaches (almost) the active volume of the TPC.
- In the future (v4) will implement correct geometry of the beam window as the model is available and improve on the CRT as decision is made on the design. Currently implementing the field cage.

# ProtoDUNE Geometry V3



# ProtoDUNE Geometry V3



# Muon 100 MeV Momentum (40 MeV KE) Entering through the beam window

