

dpol config

Tian Baiting

SAMURAI Collaboration

January 18, 2026

1

config

- dpol hit exitwindow
- target outside magnetic

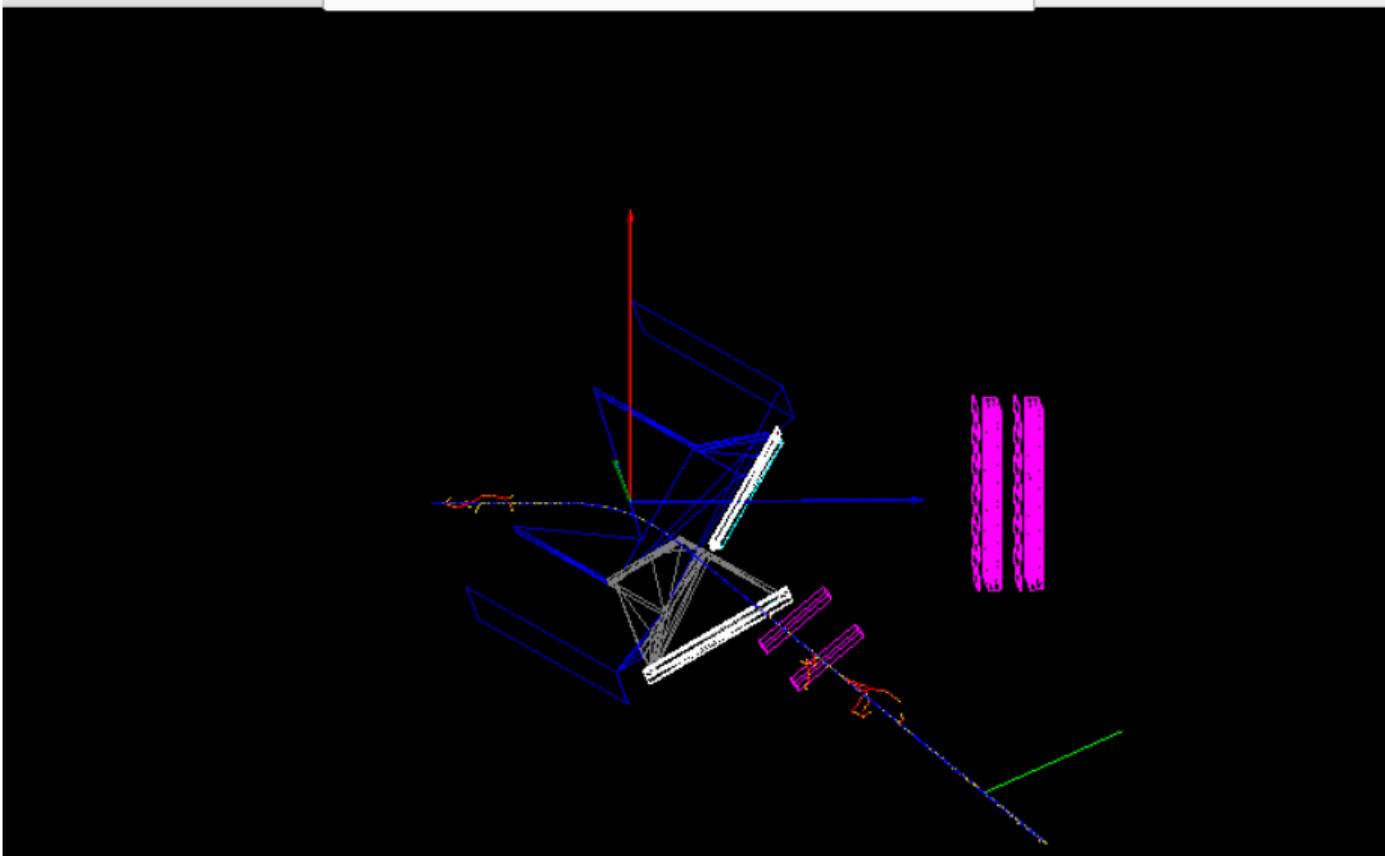


Figure: 2.0T

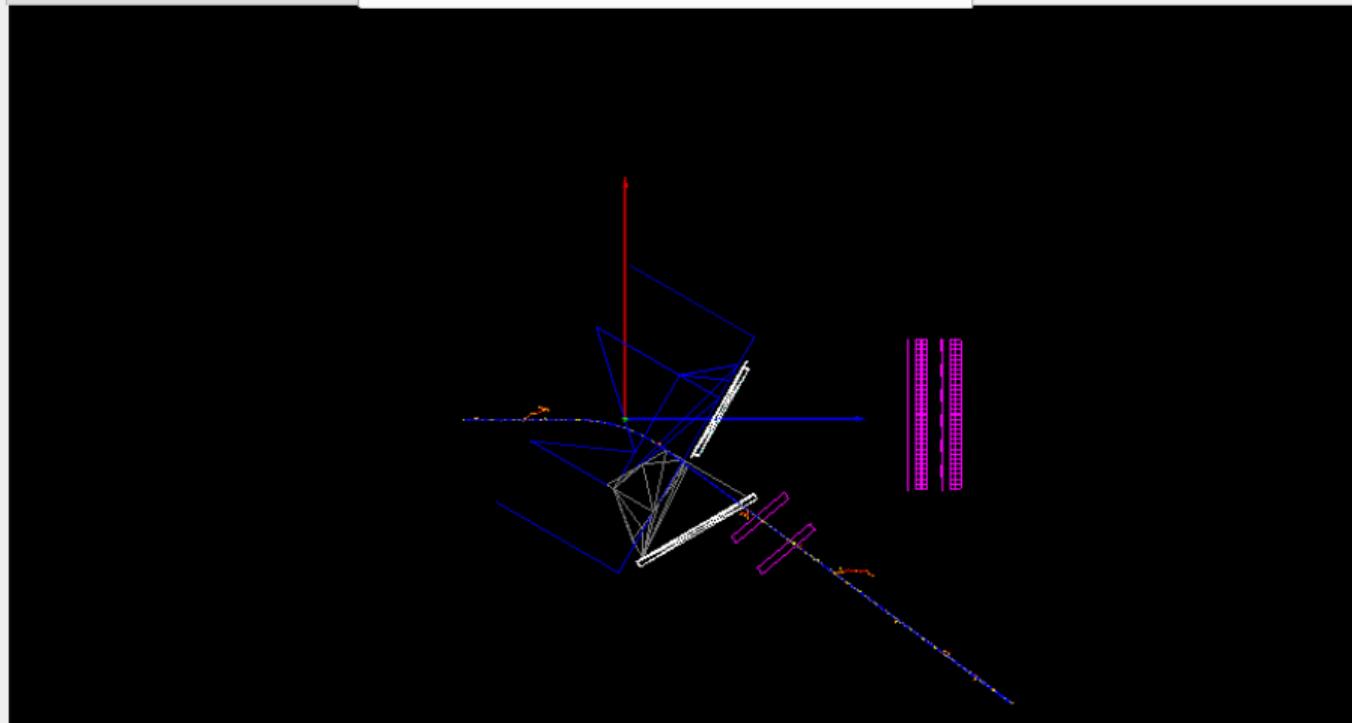


Figure: 1.8T

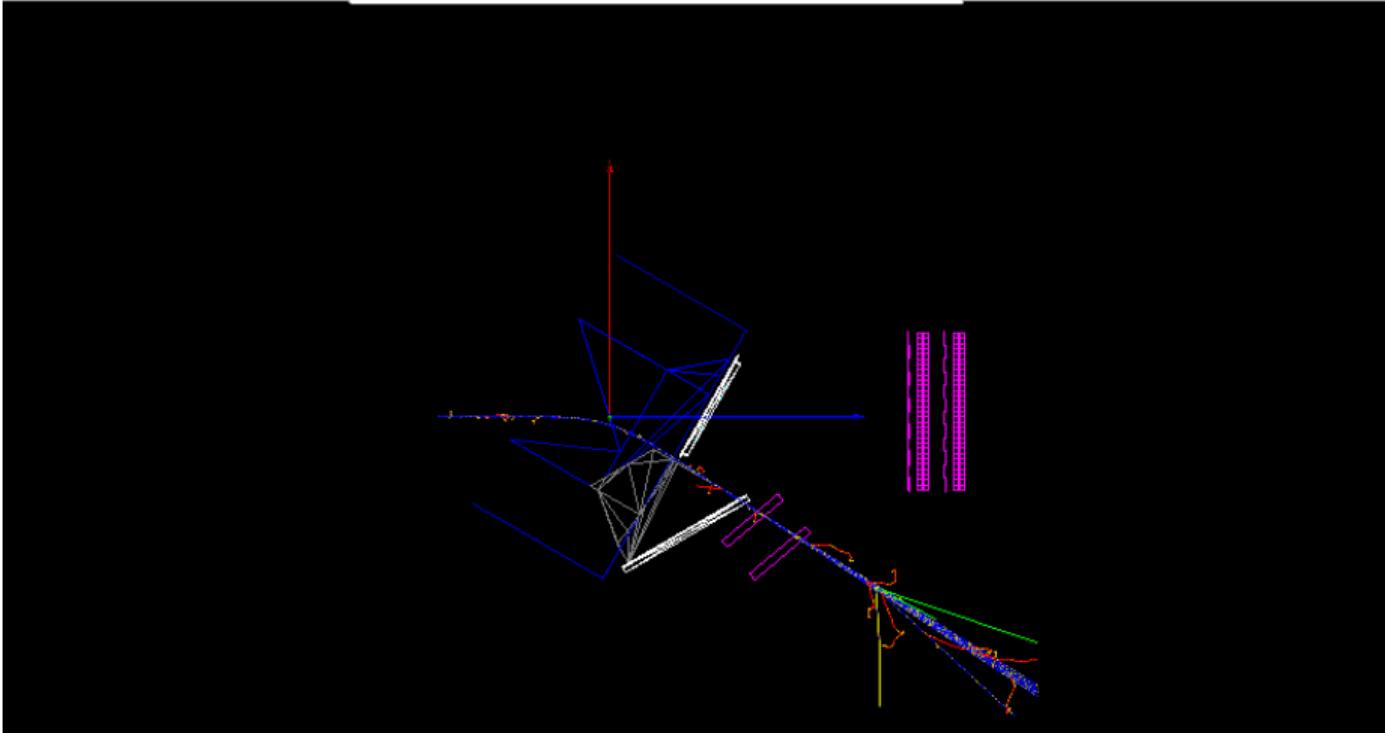


Figure: 1.6T

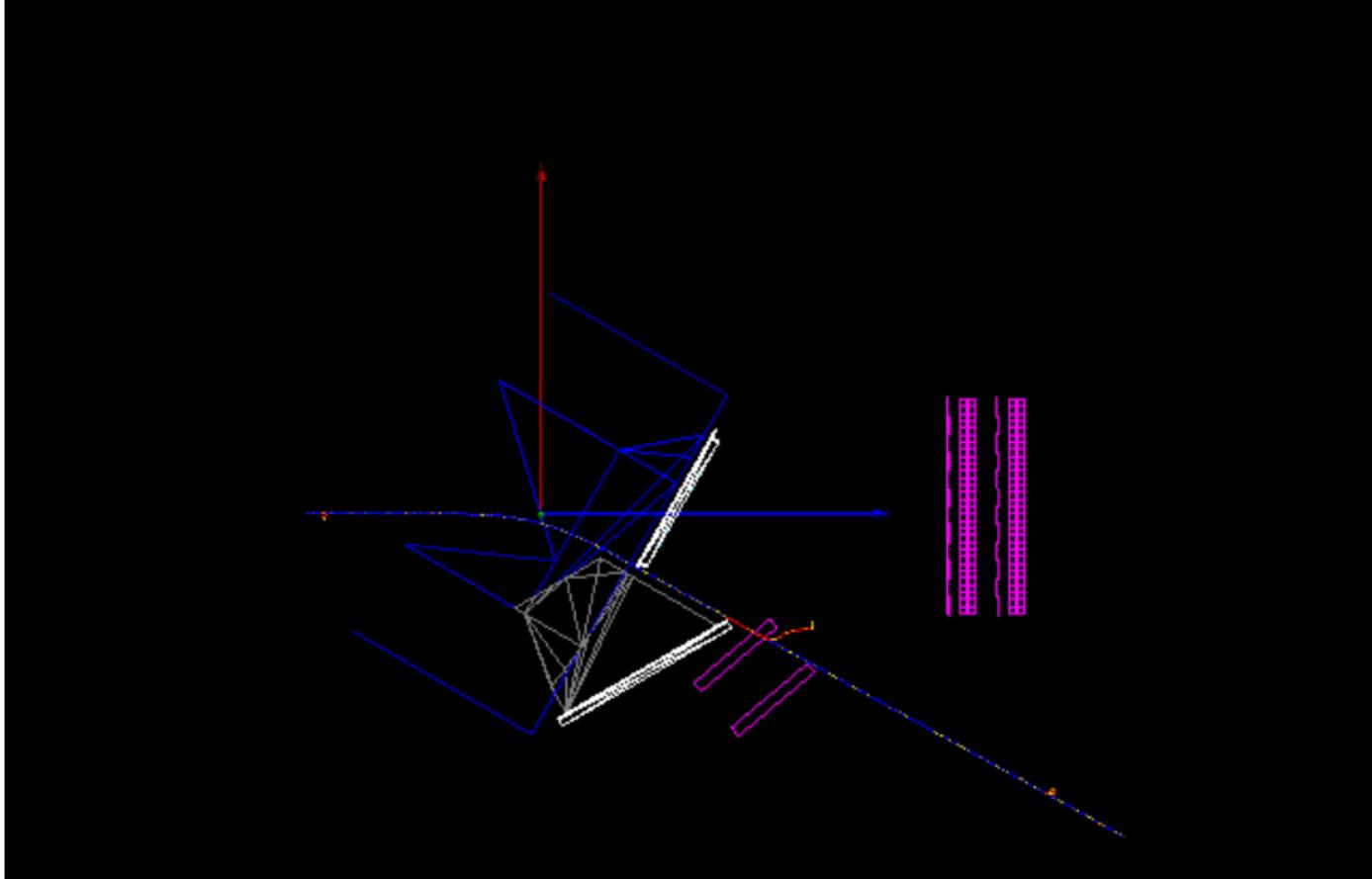


Figure: 1.4T

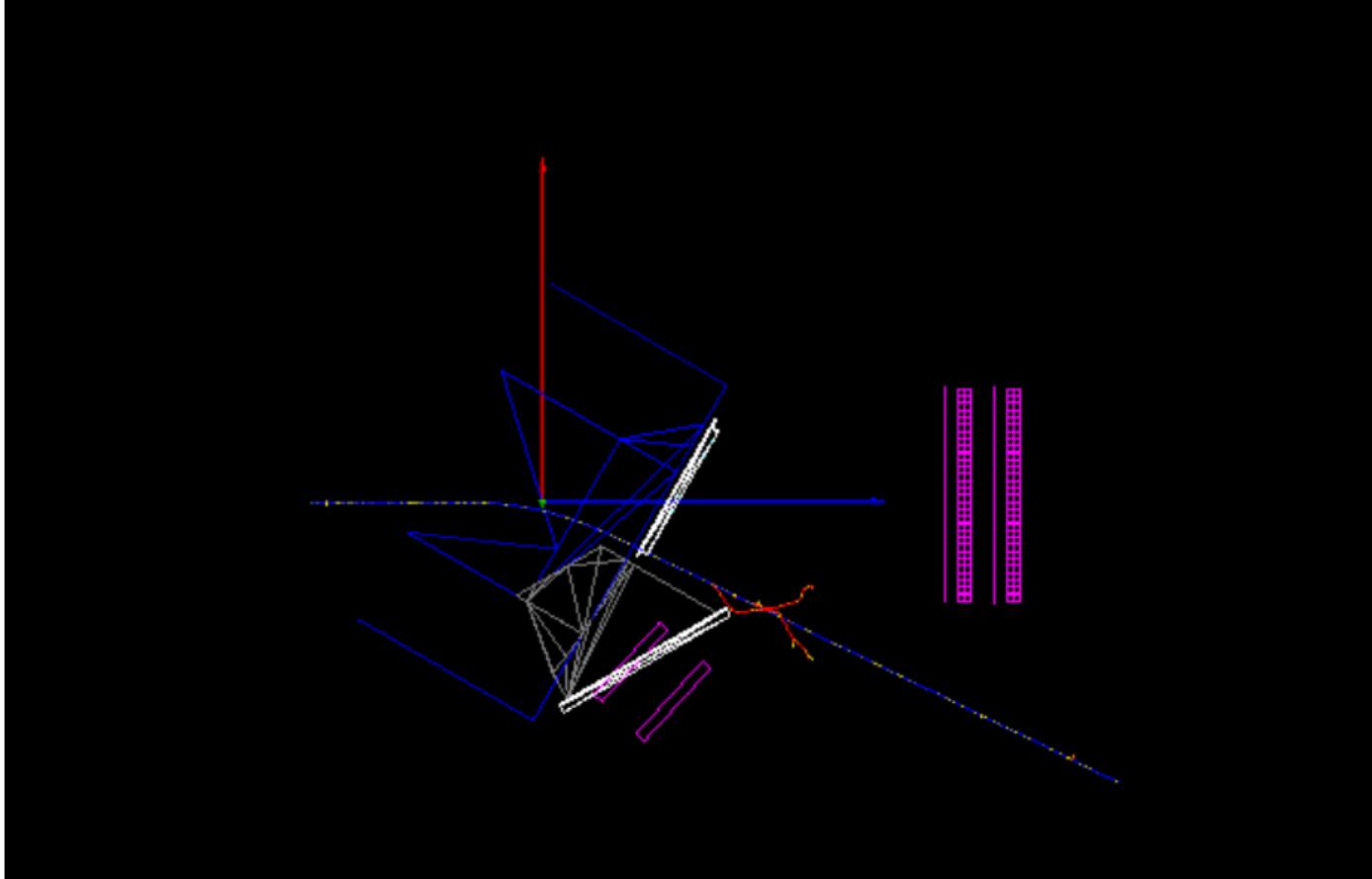


Figure: 1.2T

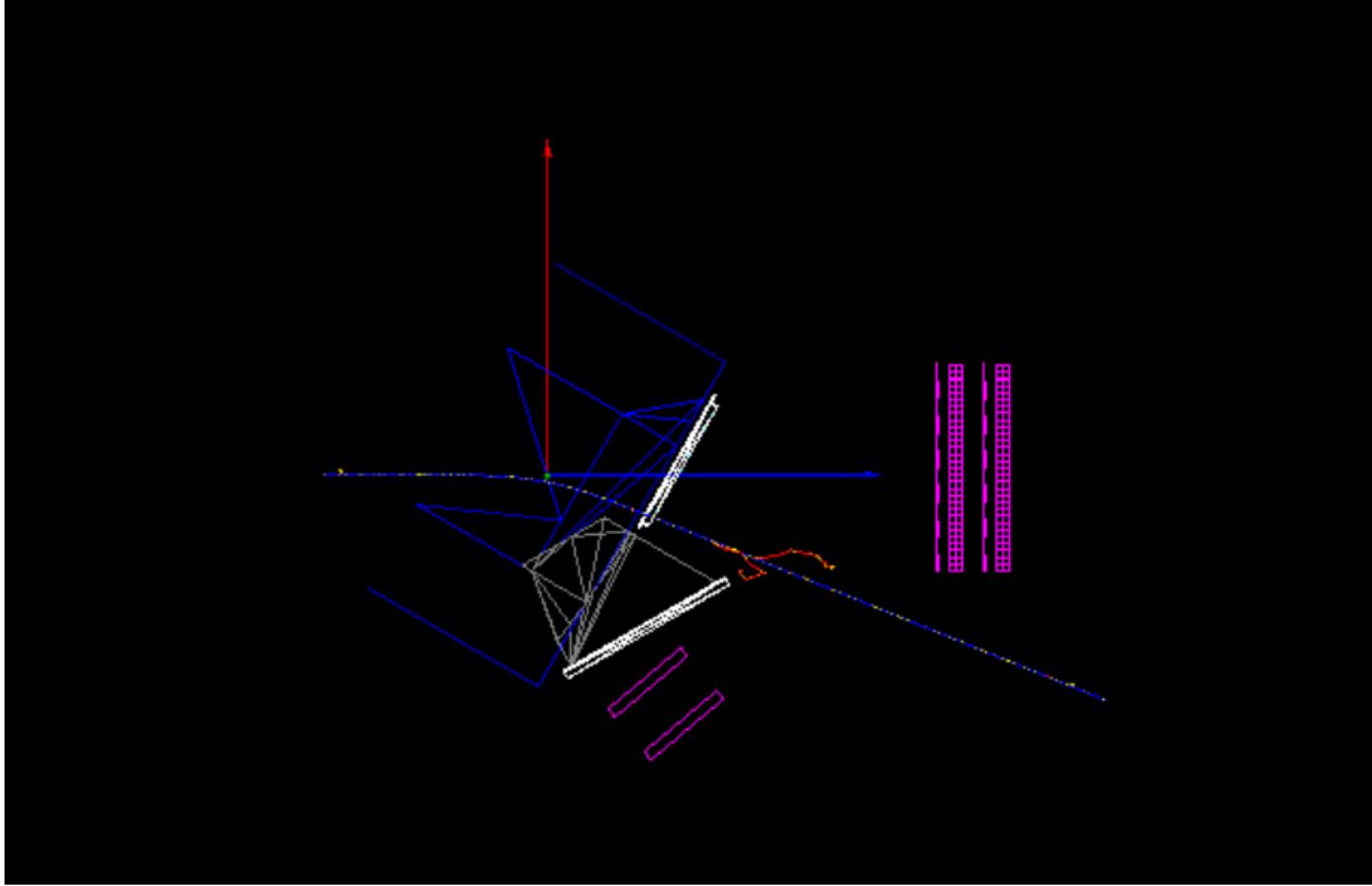


Figure: 1.0T

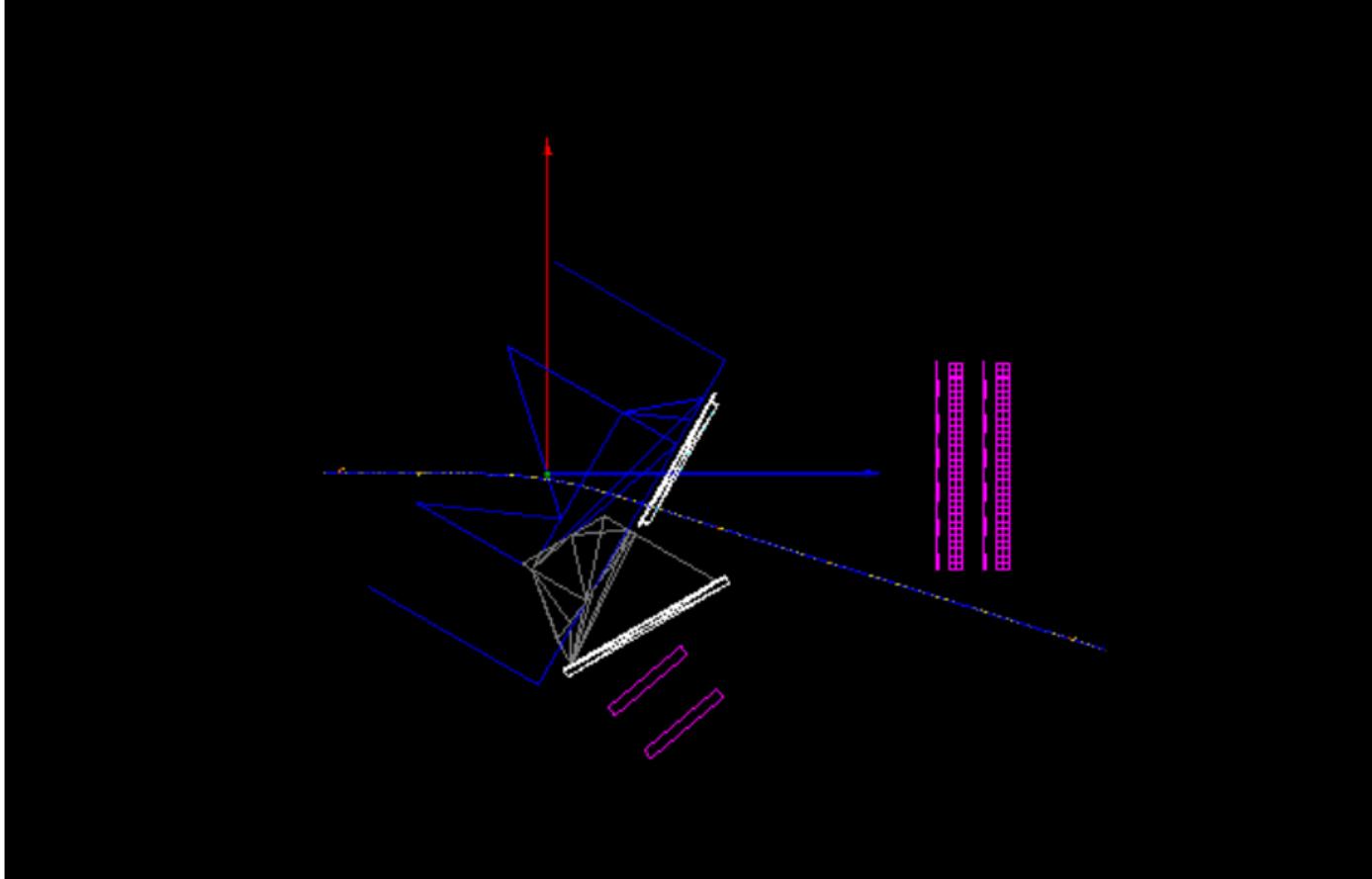


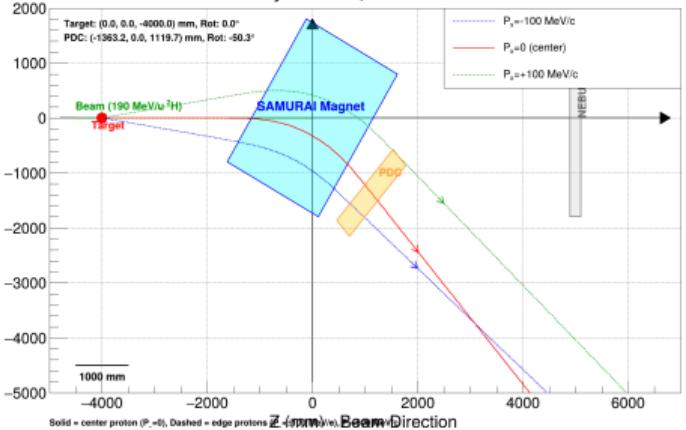
Figure: 0.8T

Rationale for Target Placement

Why the target must be placed inside the magnetic field:

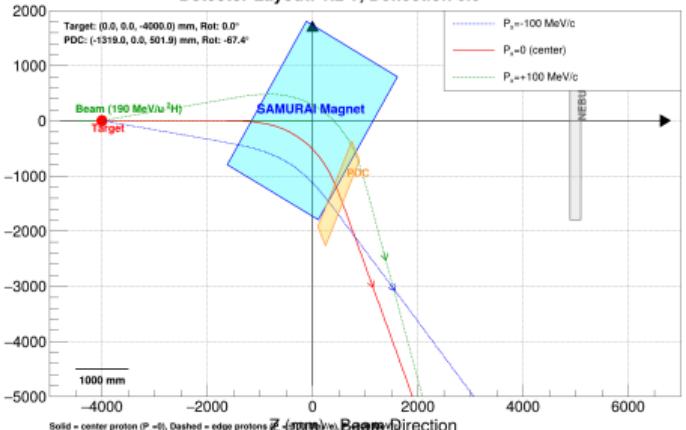
- **Strong B -field Case:**
 - Difficult proton track reconstruction.
- **Weak B -field Case:**
 - Risk of protons hitting the exit window.
- **General Constraint:**
 - Poor neutron geometric acceptance.

Detector Layout: 0.8 T, Deflection 0.0 °



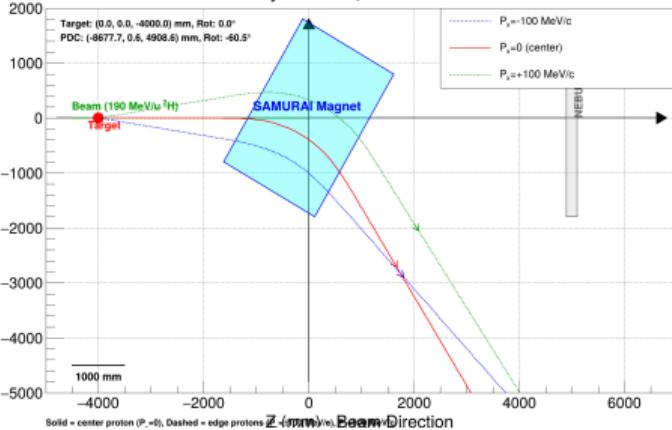
(a) 0.80 T

Detector Layout: 1.2 T, Deflection 0.0 °



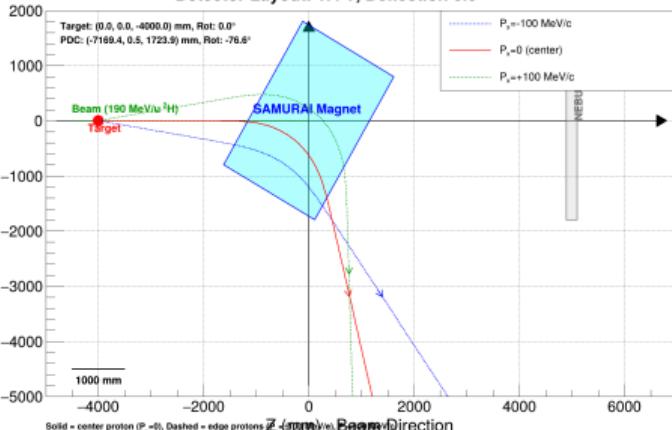
(c) 1.20 T

Detector Layout: 1.0 T, Deflection 0.0 °



(b) 1.00 T

Detector Layout: 1.4 T, Deflection 0.0 °



(d) 1.40 T