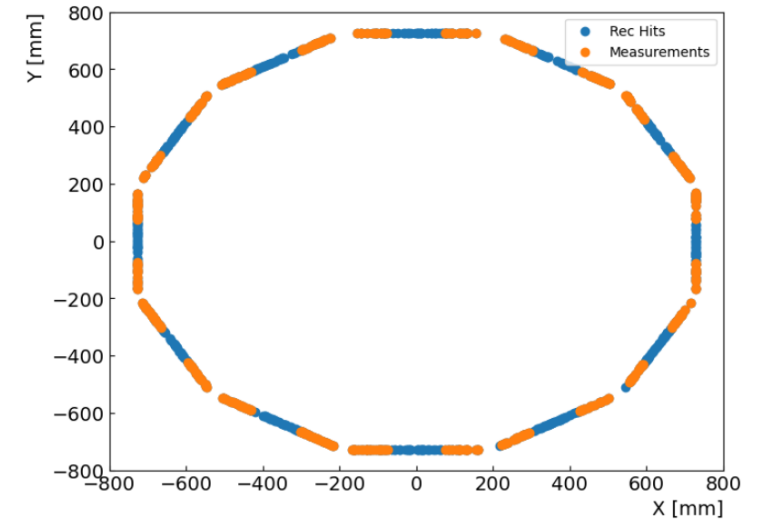
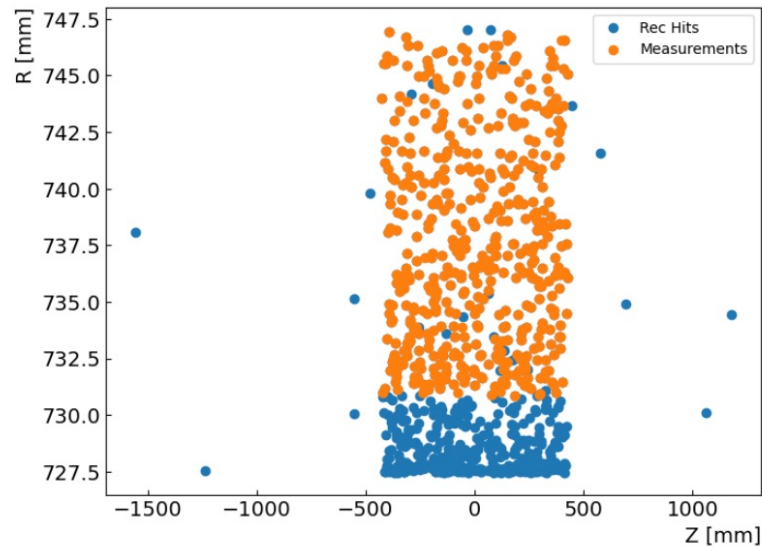
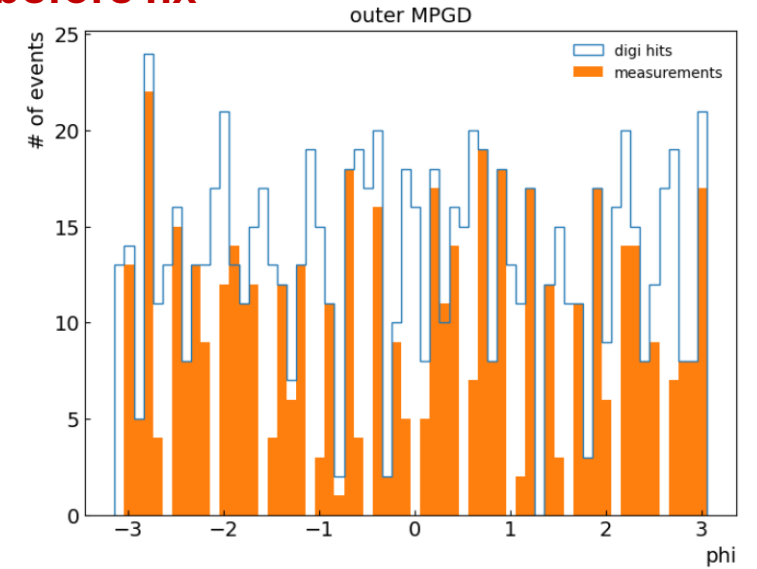
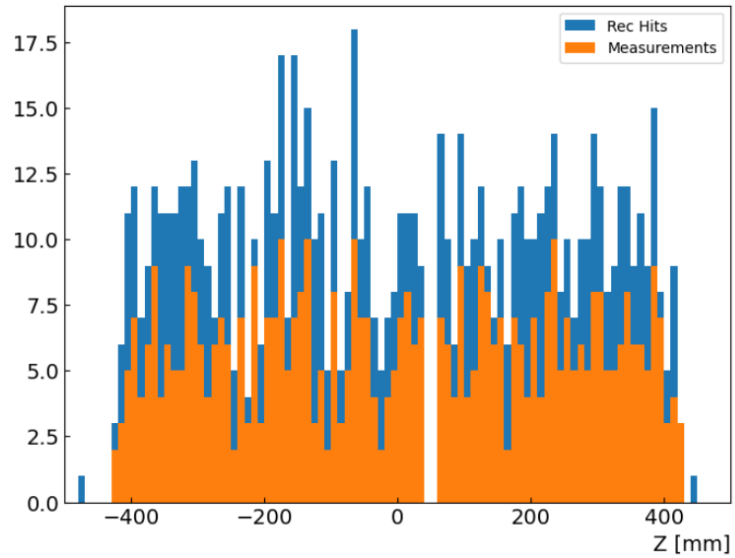


μ Rwell-BOT Missing Hits

Matt Posik
Temple University

Distributions before fix

- Issue: About half of the reconstructed hits are not being included in ACTS measurement collection
 - Initial issue found by Shujie ([Tracking Meeting \(9/12/24\)](#))



Sim	Rec	Meas
864	847	497

Rec/Sim	Meas/Rec
98%	59%

Fix:

- Modify minimum ACTS surface radius envelope tolerance from -50mm to 0mm
- Backported to epic version 24.11 by Dmitry Kalinkin

```
compact/tracking/mpgd_outerbarrel.xml
@@ -149,7 +149,7 @@
149 149 </module>
150 150 <comment> Layout for MPGD DIRC layers </comment>
151 151 <layer module="MPGDOuterBarrelModule" id="0" vis="TrackerSupportVis">
152 - <envelope_tolerance r_min="-50*mm" r_max="0*mm" z_min="0*mm" z_max="0*mm"/>
152 + <envelope_tolerance r_min="0*mm" r_max="0*mm" z_min="0*mm" z_max="0*mm"/>
153 153 <layer_material surface="inner" binning="binPhi,binZ" bins0="MPGDOuterBarrelModule_count*10" bins1="100" />
154 154 <layer_material surface="outer" binning="binPhi,binZ" bins0="MPGDOuterBarrelModule_count*10" bins1="100" />
155 155 <rphi_layout
```

Sim	Rec	Meas
857	833	828

Rec/Sim	Meas/Rec
97%	99%

Distributions after fix

