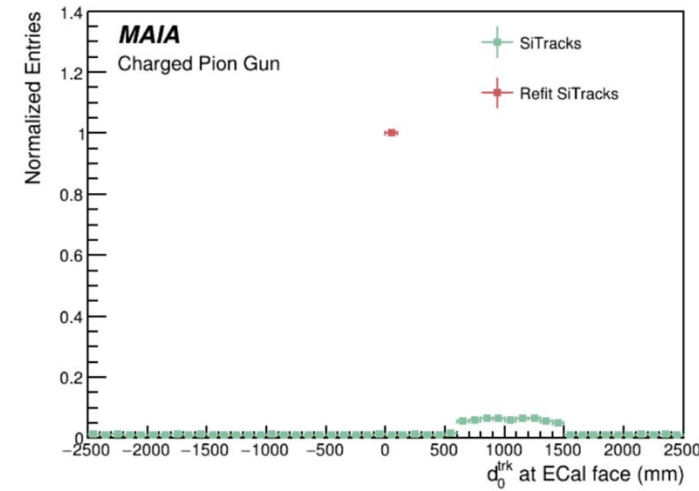
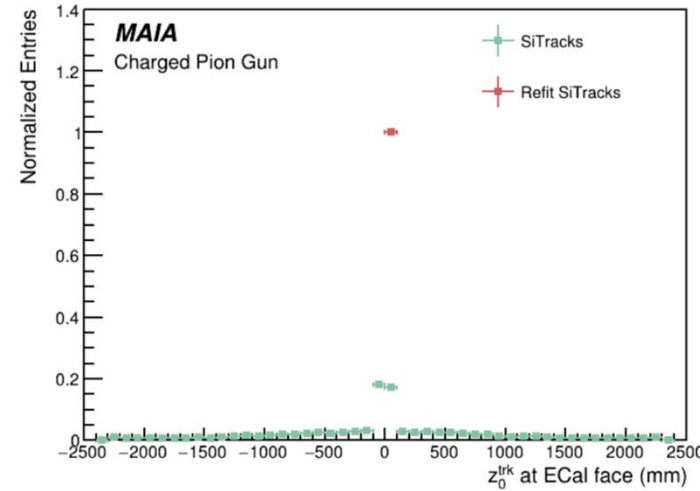


Short Update

- Recall strange impact parameters @ ECal face
- Checked that the units on ECal distance are correct
 - Set to 1857, confirmed that this is in mm ([link](#))
 - So this is likely a bug... Will have to keep in mind
- Otherwise, I continued looking through the “track workflow”
 - Track **PassesQualityChecks()** ([link](#))
 - Confirmed last week ([link to slides](#)) to not be an issue
 - Track **CanFormPFO()** ([link](#))
 - Confirmed last week ([link to slides](#)) to not be an issue
 - Track **m_reachesCalorimeter()** ([link](#))
 - Our default config “rigs” this to always be True. See next slide.
 - Various references to tracks in **Cluster Seeding** ([link](#))
 - Currently working on this step (quite lengthy)
 - Running a test right now where I expand the search window for a track
 - Cone Clustering algorithm configurable from PandoraSettingsDefault.xml (ex: [link](#) to Photon Clustering)
 - **Track-Cluster Matching** ([link](#))
 - Haven’t gone through in detail



Track m_reachesCalorimeter

- Track `m_reachesCalorimeter()` ([link](#))
- First part of this function calculates the number of barrel and endcap hits per track
- Then a cut-based decision for whether the track reaches the calorimeter
- Parameters set in config from software tutorial rig this to be True for all tracks
 - Good enough for now, will want to re-evaluate when backgrounds or BIB is added

```
516 if ((nTrackerHits >= m_settings.m_reachesECalNBarrelTrackerHits) || (nEndcapDiskHits >= m_settings.m_reachesECalNFtdHits))
517 { non-negative 0 non-negative 0
518     if ((hitOuterR - m_trackerOuterR > m_settings.m_reachesECalBarrelTrackerOuterDistance) ||
519         (std::fabs(hitZMax) - m_trackerZmax > m_settings.m_reachesECalBarrelTrackerZMaxDistance) ||
520         (std::fabs(hitZMin) - m_trackerZmax > m_settings.m_reachesECalBarrelTrackerZMaxDistance) ||
521         (maxOccupiedEndcapDiskLayer >= m_settings.m_reachesECalMinFtdLayer))
522     { non-negative 0
523         trackParameters.m_reachesCalorimeter = true;
524         return; "rigged to return true" link
525     }
526 }
```

210	"ReachesECalBarrelTrackerOuterDistance": ["-100"],
211	"ReachesECalBarrelTrackerZMaxDistance": ["-50"],
212	"ReachesECalFtdZMaxDistance": ["1"],
213	"ReachesECalMinFtdLayer": ["0"],
214	"ReachesECalNBarrelTrackerHits": ["0"],
215	"ReachesECalNFtdHits": ["0"],

211 Config file from
212 software tutorial
213 ([link](#))