

Implementation of Charge sharing in FToF

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ToF Endcap (Charge sharing among neighbouring cells)

Particle - π^+ , momentum.Min = 1 GeV, gun.momentumMax = 10 GeV, No. of events = 100

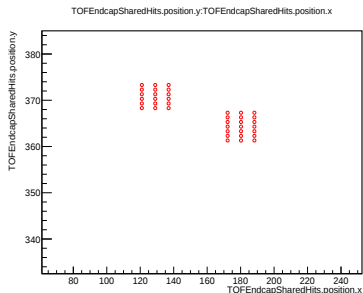
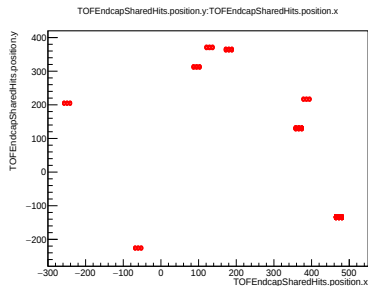
► Implementation of SiliconChargeSharing.cc in ECTOF.cc

```
app->Add(new JOMniFactoryGeneratorT<SiliconChargeSharing_factory>(
    "TOFEndcapSharedHits", {"TOFEndcapHits"}, {"TOFEndcapSharedHits"},
    {
        .sigma_sharingx = 0.1 * dd4hep::cm,
        .sigma_sharingy = 0.5 * dd4hep::cm,
        .min_edep       = 0.0 * edm4eic::unit::GeV,
        .readout         = "TOFEndcapHits",
    },
    app));
```

► Storing output as “TOFEndcapSharedHits” in podio_output.root

TOF Endcap Shared hits

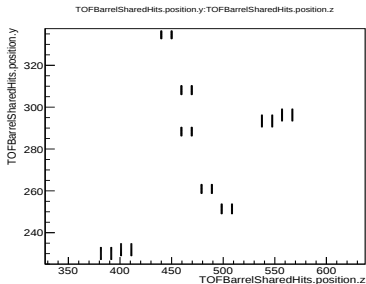
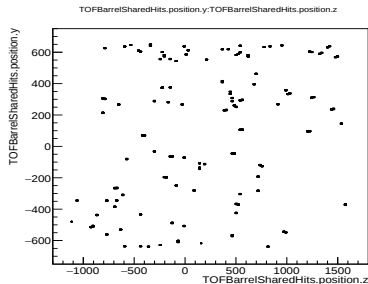
Dimensions are in mm.



- ▶ Why there are always 3 vertical line?
- ▶ Although in y- axis number of hits are varying from 5 to 13.

TOF Barrel Shared hits

Dimensions are in mm.

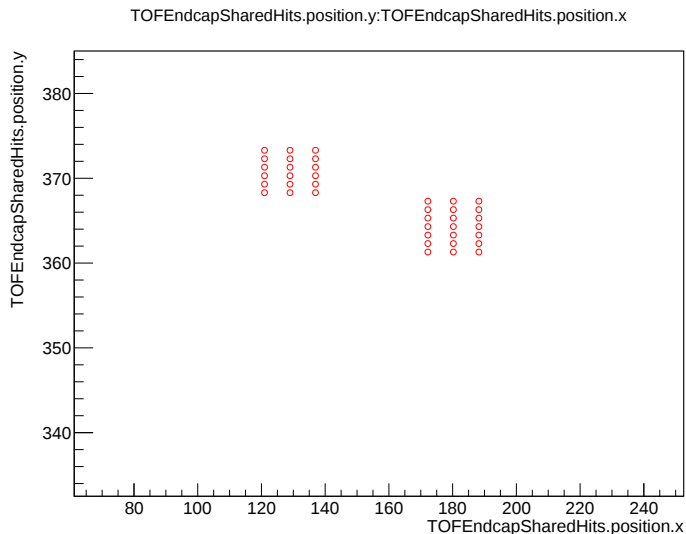


► Why there are always 2 vertical line?

THANK YOU.

TOF Endcap Shared hits (Back up)

Dimensions are in mm.



TOF Barrel Shared hits (Back up)

Dimensions are in mm.

