

Excessive cluster splitting at high pseudorapidity in EcalBarrelScFi

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Simulation info:

SIM.gun.etaMin = -2

SIM.gun.etaMax = -0.8

SIM.gun.distribution = "cos(theta)"

SIM.gun.energy = 1*GeV

SIM.gun.particle = "gamma"

SIM.gun.phiMin = 130*deg

SIM.gun.phiMax = 177*deg

Checked for cluster splitting for different values of localDistXZ parameter

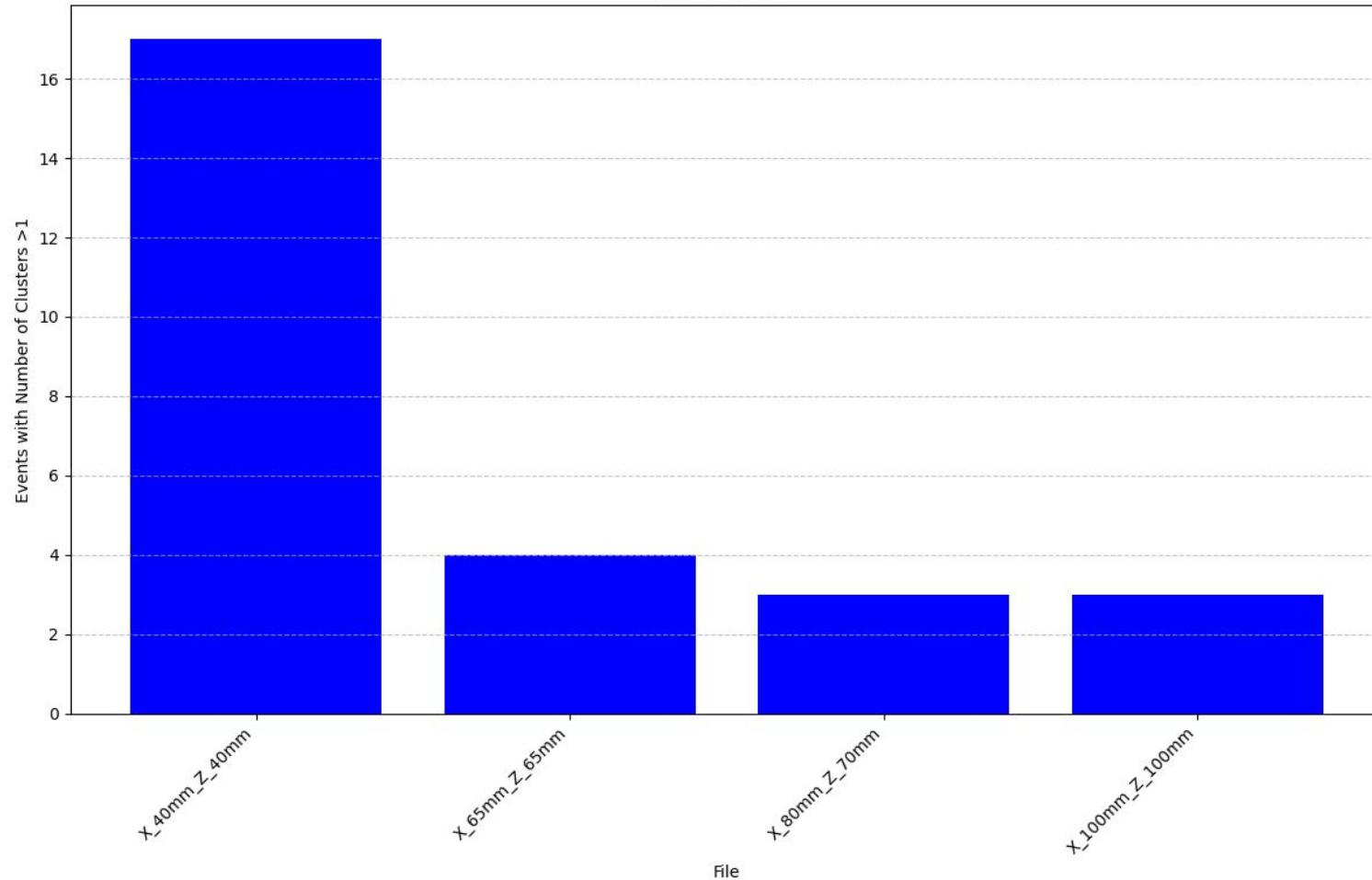
```
app->Add(new J0OmniFactoryGeneratorT<CalorimeterIslandCluster_factory>(
    "EcalBarrelScFiProtoClusters", {"EcalBarrelScFiRecHits"}, {"EcalBarrelScFiProtoClusters"}, 
{
    .sectorDist = 50. * dd4hep::mm,
    .localDistXZ = {40 * dd4hep::mm, 40 * dd4hep::mm},
    .splitCluster = false,
    .minClusterHitEdep = 5.0 * dd4hep::MeV,
    .minClusterCenterEdep = 100.0 * dd4hep::MeV,
},
app // TODO: Remove me once fixed
)):
```

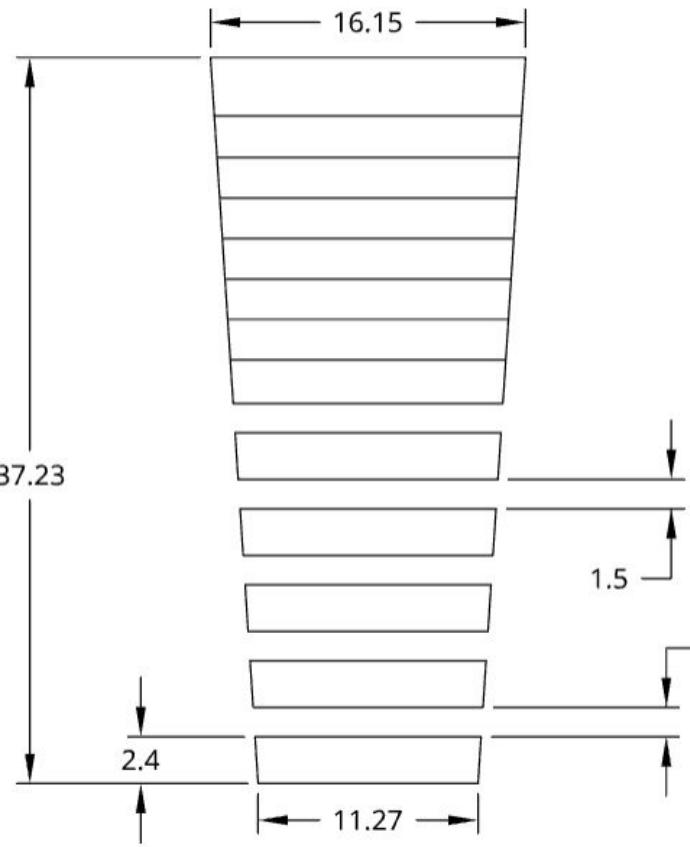
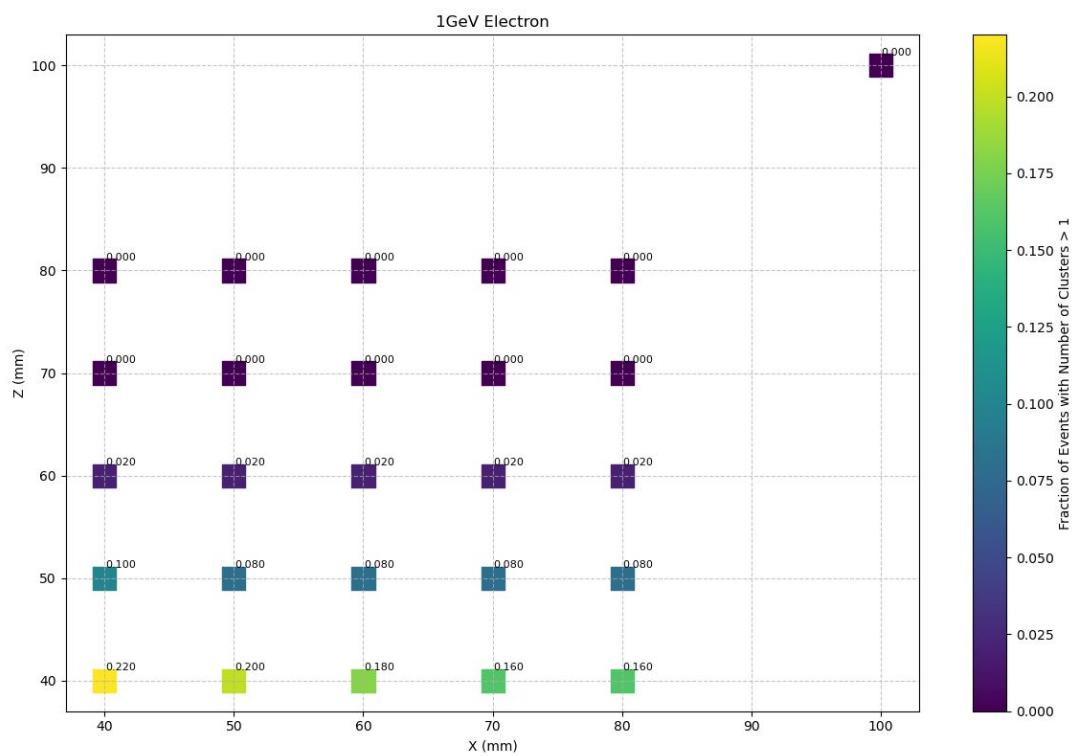
.localDistXZ = {65 * dd4hep::mm, 65 * dd4hep::mm}

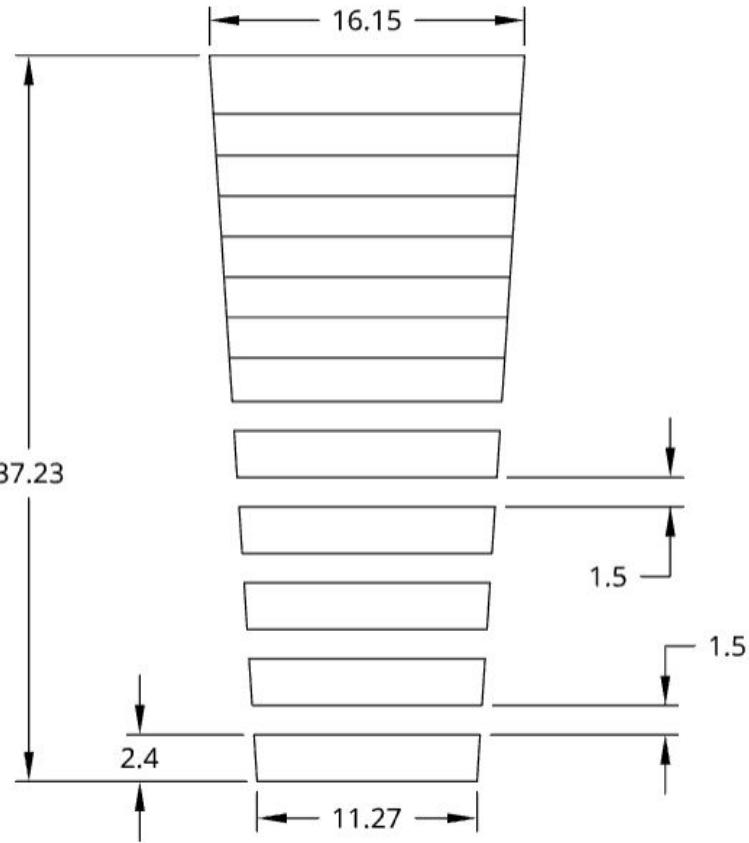
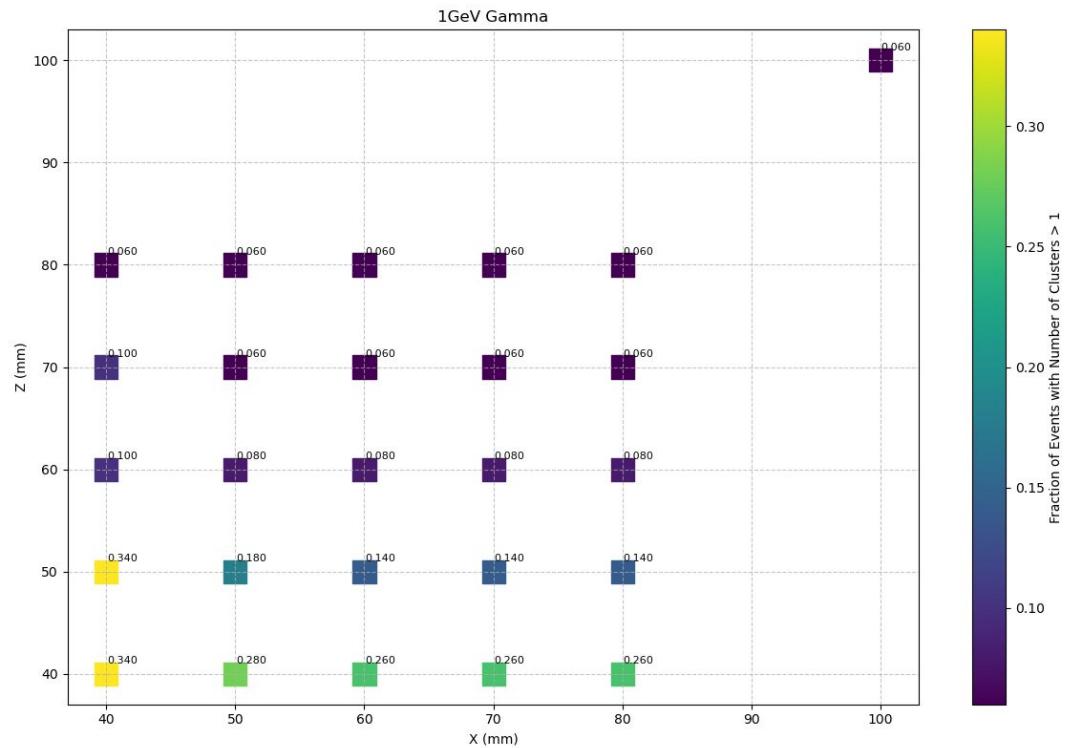
.localDistXZ = {80* dd4hep::mm, 70* dd4hep::mm}

.localDistXZ = {100* dd4hep::mm, 100* dd4hep::mm}

1GeV Gamma







1GeV Gamma : 10K events

