Progress and Plans

Calorimeter Clustering Tasks

Clustering-related PRs

- Add a cluster visualizer script #494 (Draft)
- Remove MergedClusters #519
- algorithms/calorimetry: refactor logging #550
- HcalBarrel parameters and clustering #557
- CalorimeterIslandCluster: wrap around azimuthal distance #559
- CalorimeterIslandCluster: autotune transverse shower profile parameter #561

Your reviews can help push PRs forward!

Upcoming tasks for the simulation campaign

- Check calibration constants (many were not correct in October simulation)
- Accessing cluster hits issue?
  https://eic.cloud.mattermost.com/main/pl/8zxqu5ent38rpcuxxkwescnc8a

  (Likely, won't be fixed anytime soon)

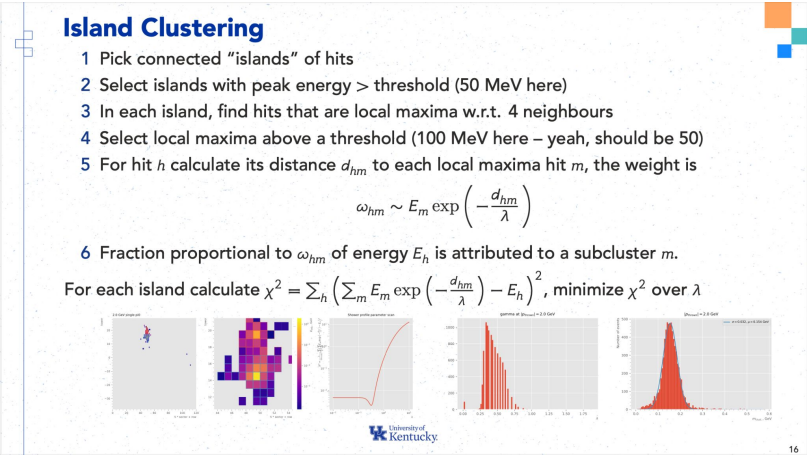
- LFHCAL with Clustering in EICrecon?
- Lumi calos with Clustering in EICrecon?
- Test new splitting for Imaging?

Splitting in IslandCluster

- Prototype code (in Python) was used for Barrel Ecal review studies of SciGlass
- Now ported to EICrecon/C++ #561
- Help in testing is needed
- Technical caveat: distance measured using the same measure as adjacency, for SciGlass now hardcoded globalDistEtaPhi, but should eventually be in cm perpendicular to shower axis
- Would be nice to understand if and how lambda changes vs eta and phi

EICrecon/src/algorithms/calorimetry/CalorimeterIslandCluster.h
Line 259 in 6dc3f87

```
259     double dist_ref = chit->getDimension().x;
```



1 src/algorithms/calorimetry/CalorimeterIslandCluster.cc

```
@@ -65,6 +65,7 @@ void CalorimeterIslandCluster::AlgorithmIn
65  65          {"globalDistRPhi", {globalDistRPhi, {dd4hep::mm, dd4
    {1., dd4hep::rad}}}
66  66      };
67  67
    68  +       hitsDist = globalDistEtaPhi; // FIXME
68  69
69  70      // set coordinate system
70  71      auto set_dist_method = [this](std::pair<std::string, std
```