

Reconstruction in LArSoft (Clusters)

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Base Classes

HIT: Location in time on a wire where signal is present



Cluster: Collection of hits that are near each other in space and time

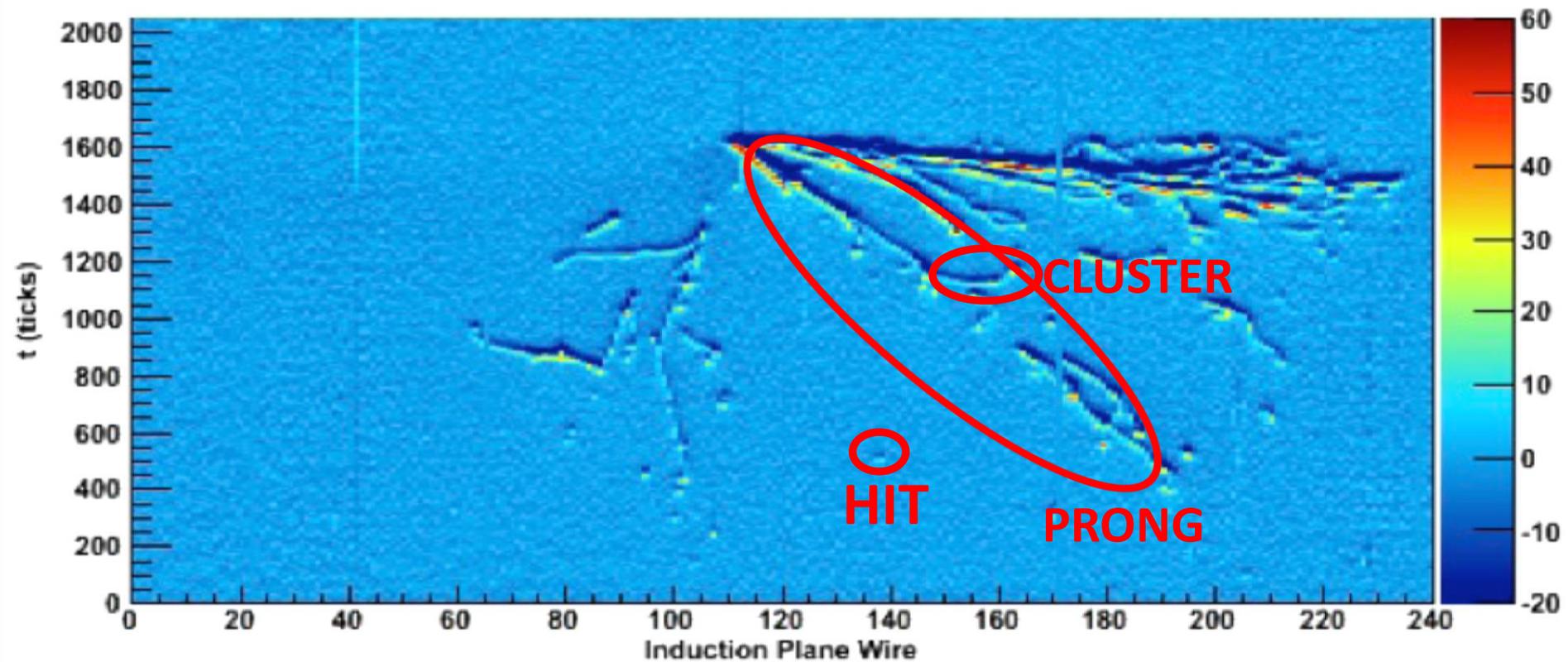


Prong: Collection of clusters that occupy the same space and time



Shower, Track

Definitions on Evd



- Hits: reference to wire, times related to each hit, XYZ info
- Clusters: vectors of hits for each view, XYZT info, signal info
- ...etc.
- No multidirectional flow between objects:
 - Clusters just know about hits
 - Hits just know about wires
- 2d vs 3d- discussion

Cluster

- Cluster Interface – done
- Cluster base class- done (?)
- Future Algorithms will inherit from it
- Create a vector of hits for each plane (col & ind)

Cluster: initial thoughts/ideas

- Take a vector of hits, sort it according to time of each hit-> create a vector of close in time hits
- Take this new vector and scan in for a closeness in space (wire#)
- Need 2 parameters:
- ExtentInSpace, ExtentInTime, NumEmptyWires -> require testing

