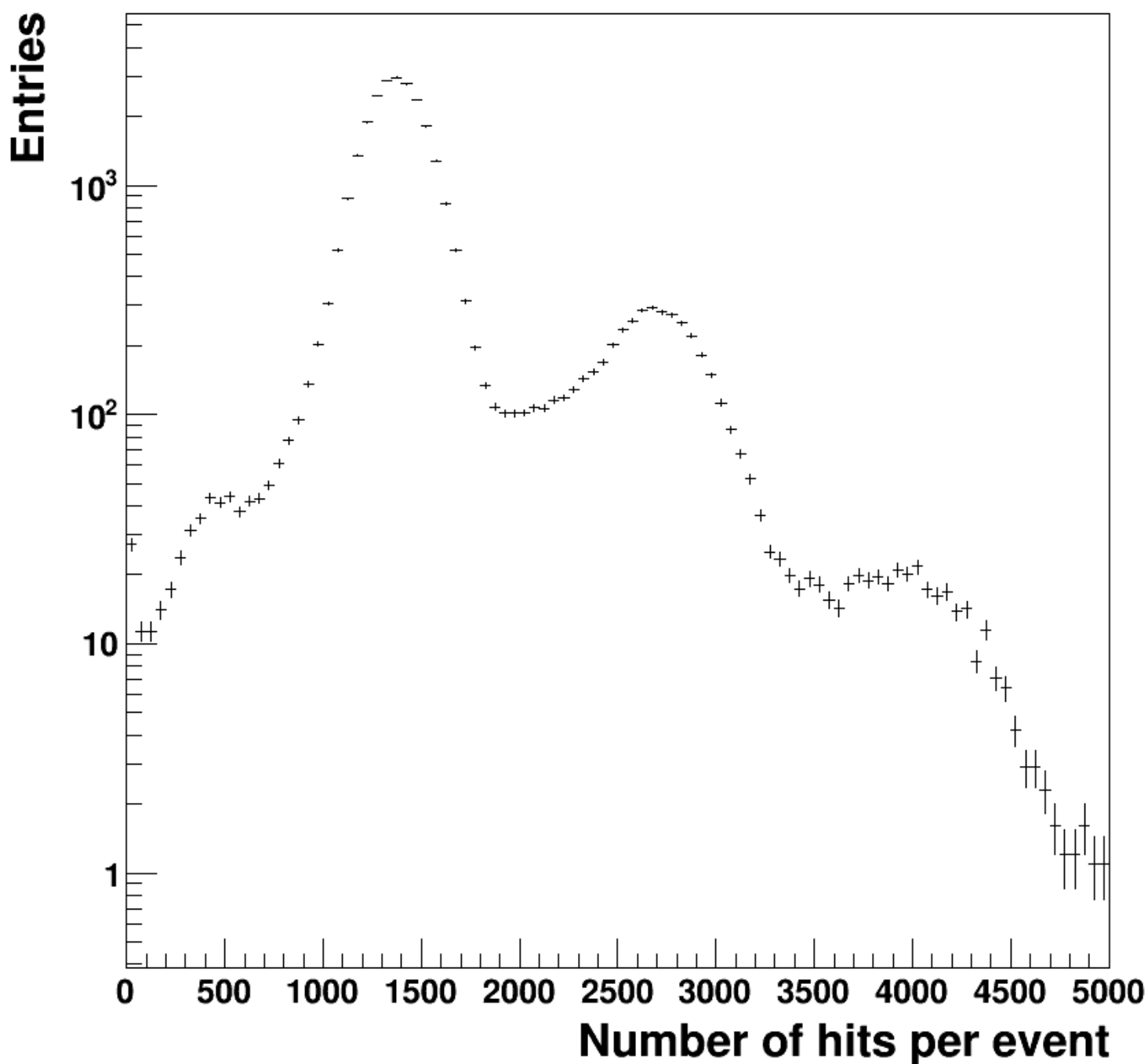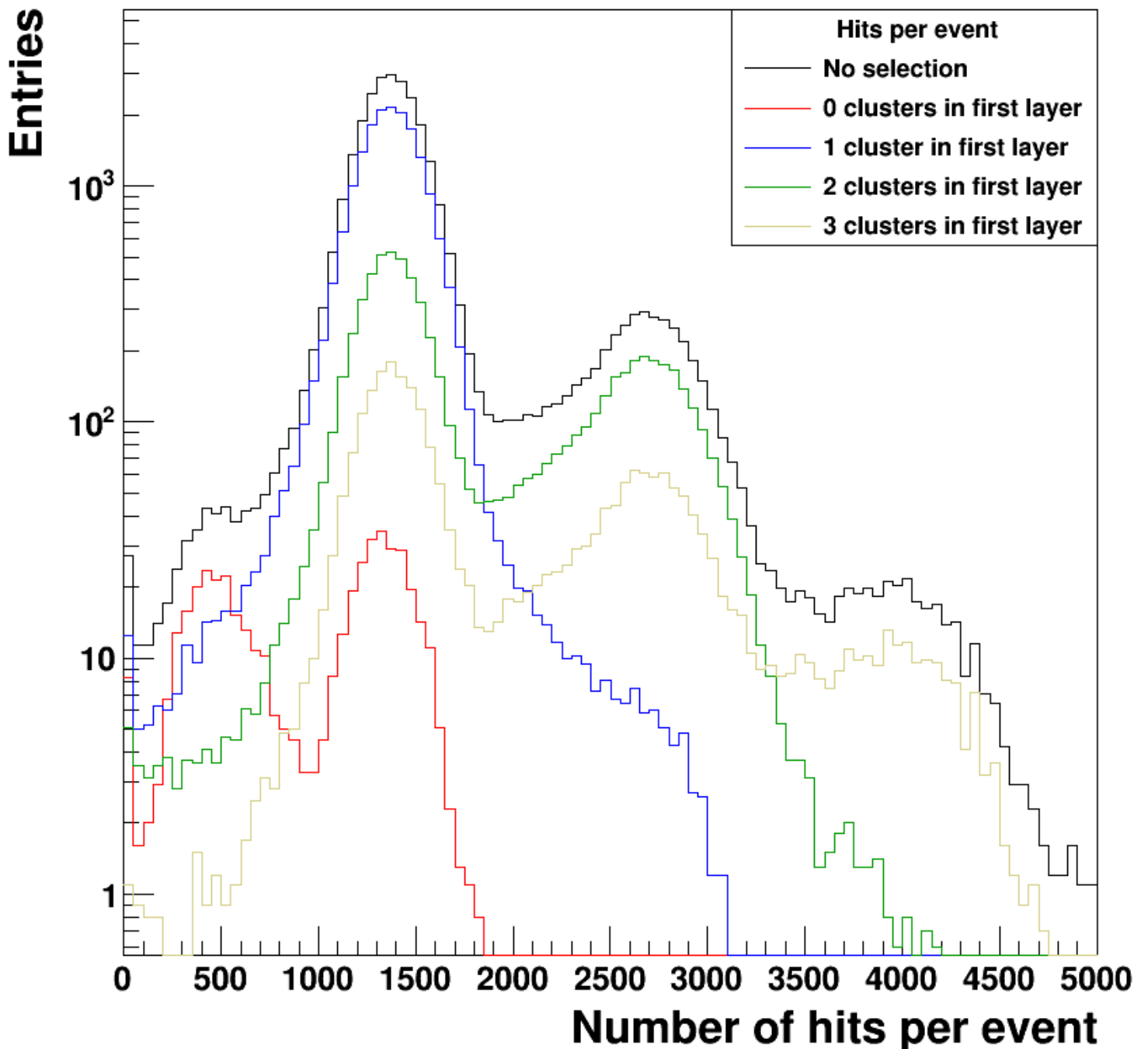# Run 1308 – 5 GeV

- Different peaks due to different number of electrons producing a shower.

- Goal: Make selection criteria to select events with only 1 electron or only 2 electrons etc.
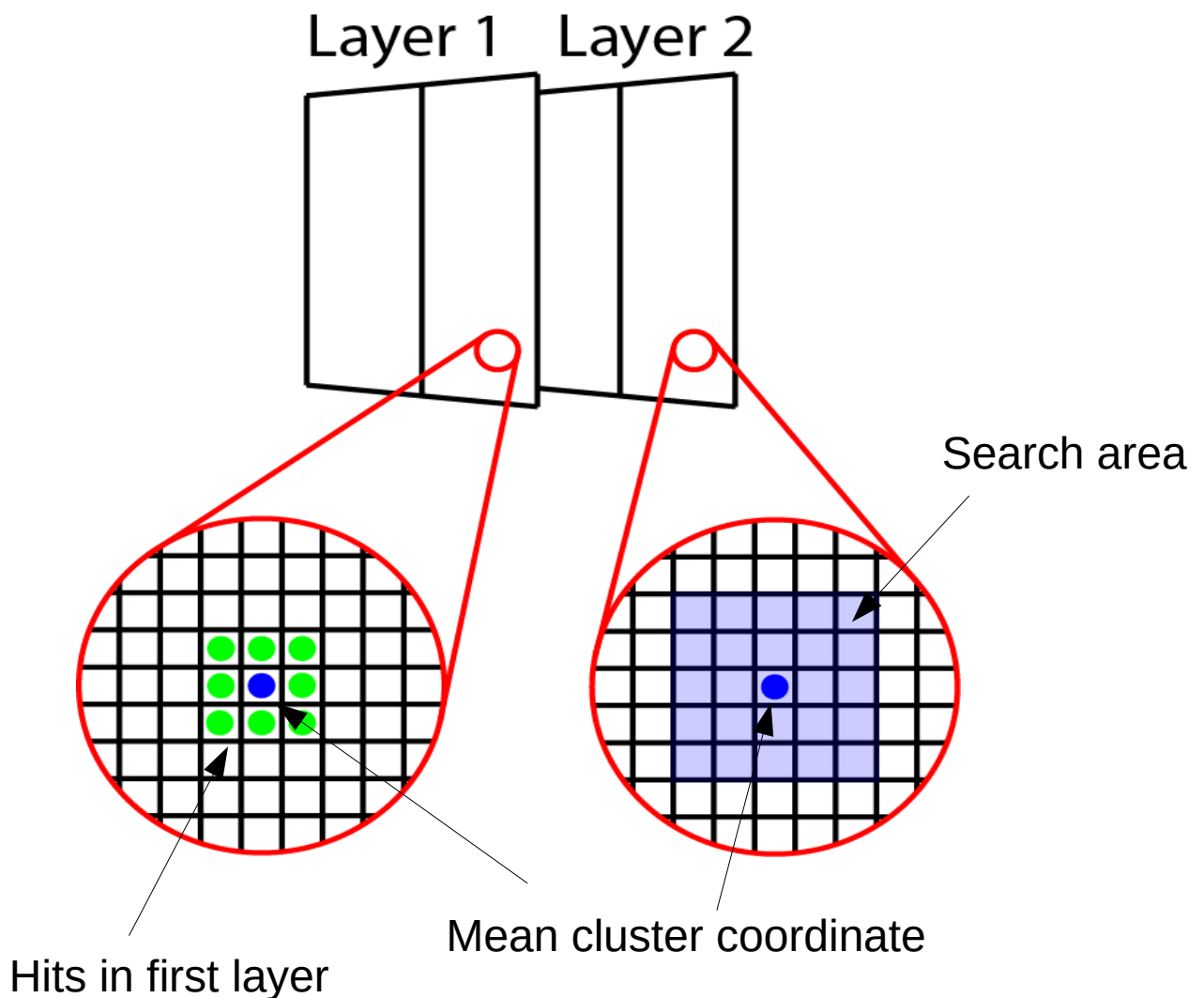
Run 1308 – 5 GeV

- Goal: Make selection criteria to select events with only 1 electron or only 2 electrons etc.

- First criterion: Selection based on number of clusters in first layer

Run 1308 – 5 GeV

- First criterion: Selection based on number of clusters in first layer

- Second criterion: Look in second layer **behind** the clusters.
  - Hit found? Cluster is accepted
  - No hit found? Cluster is ignored

Layer 1   Layer 2

Search area

Hits in first layer

Mean cluster coordinate

Run 1308 – 5 GeV

- First criterion: Selection based on number of clusters in first layer

- Second criterion: Look in second layer **behind** the clusters.
  - Hit found? Cluster is accepted
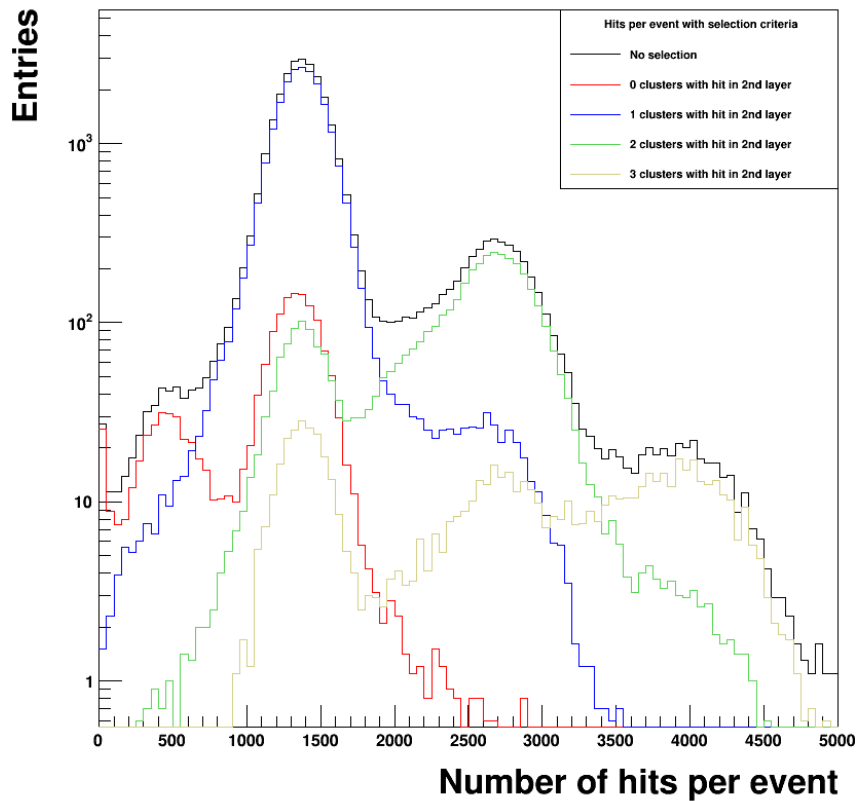 - No hit found? Cluster is ignored

- Extra cut for 1 electron events: If there are ignored clusters with clustersize > 1, reject event.

- The next 3 slides show results with both the first and second criterion applied. These plots are shown with and without the extra cut.
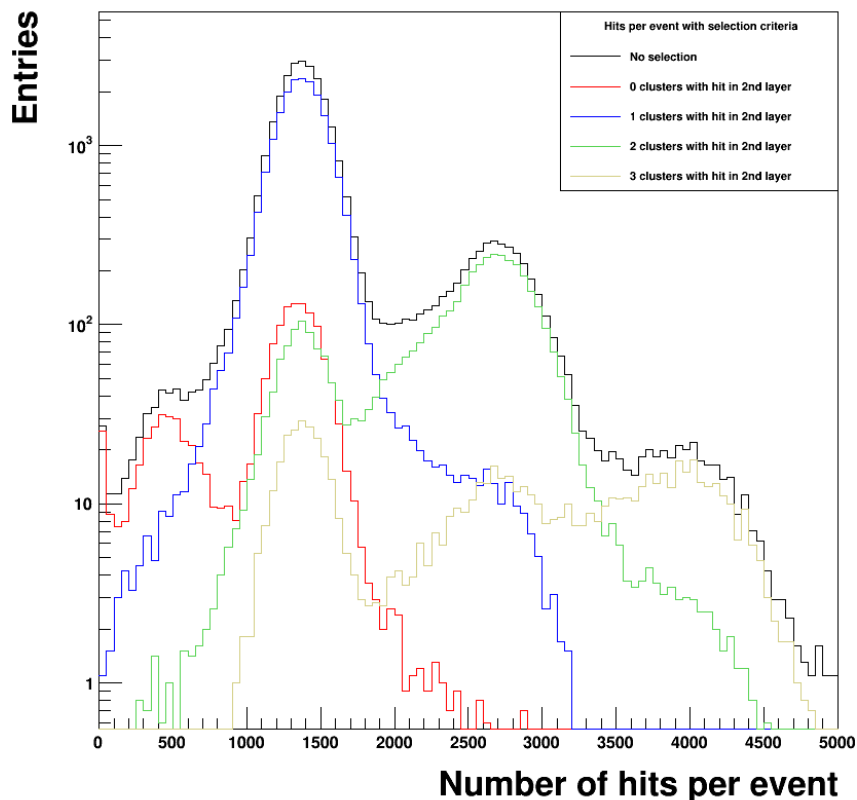
Run 1308 – 5 GeV
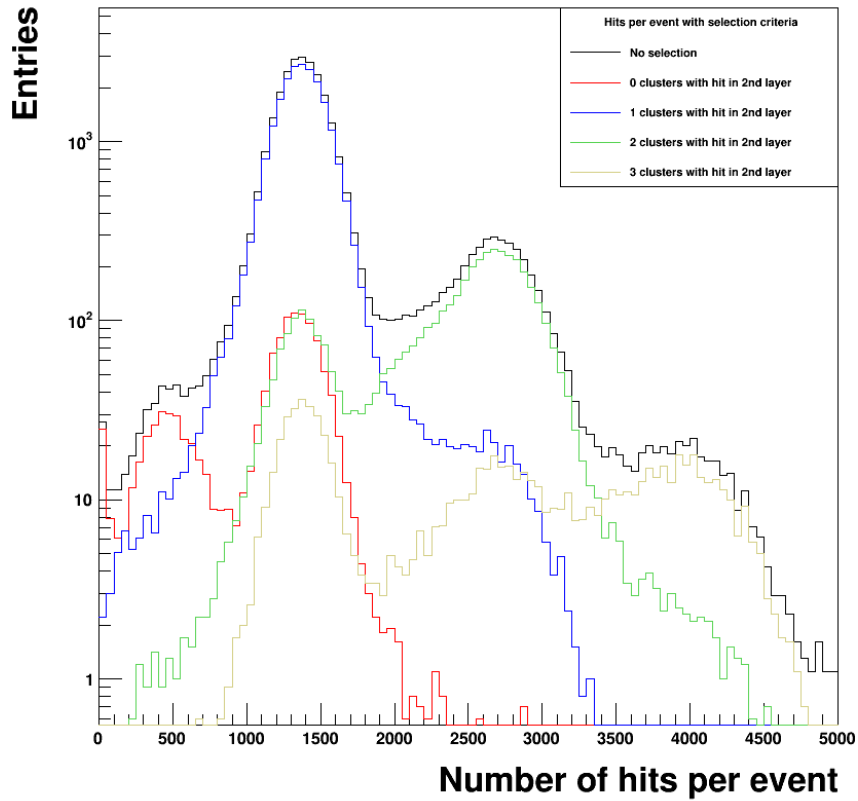# Search area in 2nd layer= 11X11
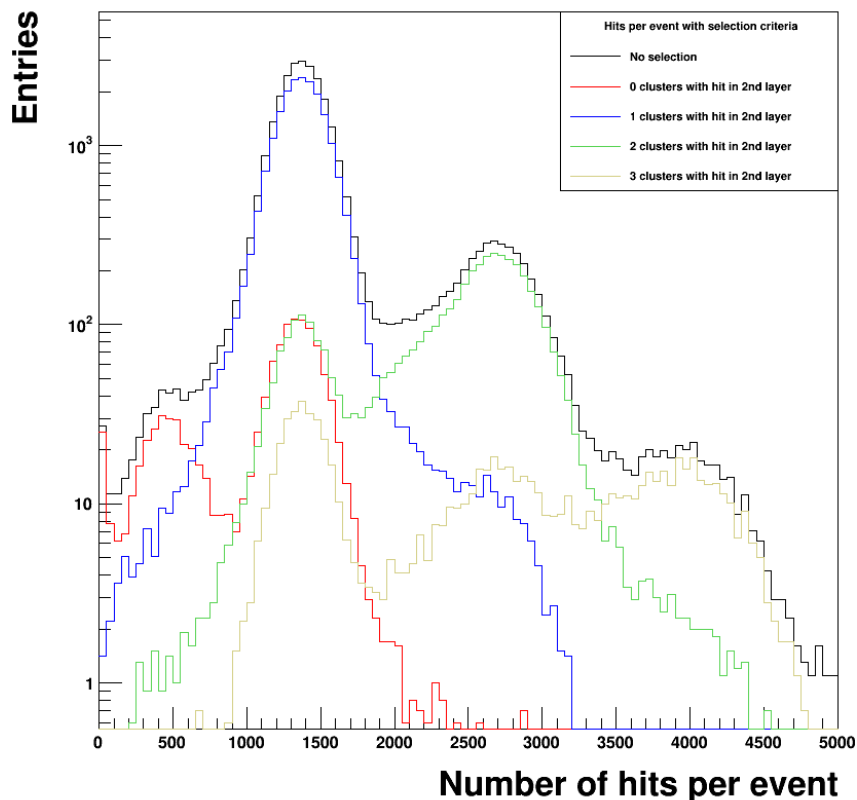
Without extra 1 cluster cut

With extra 1 cluster cut

Run 1308 – 5 GeV

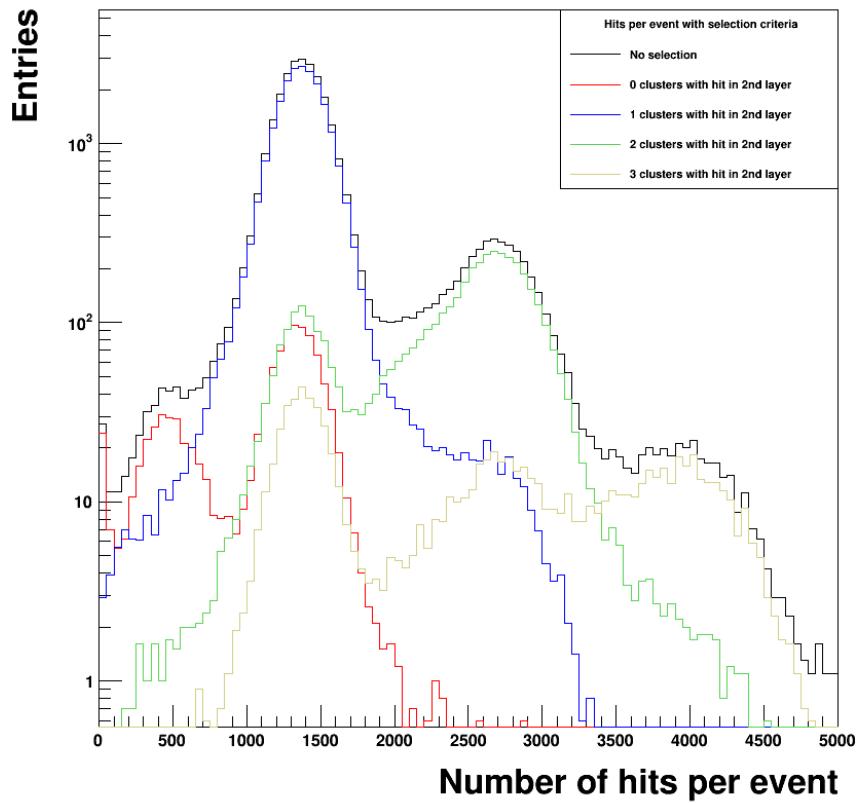# Search area in 2nd layer= 13X13

Without extra 1 cluster cut
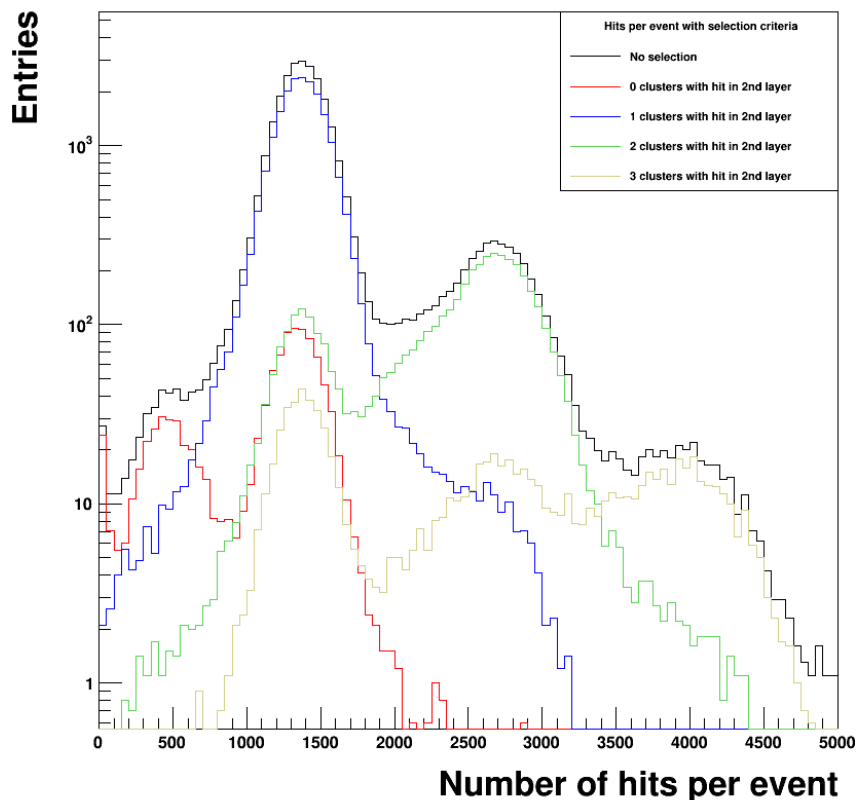

With extra 1 cluster cut

Run 1308 – 5 GeV

Search area in 2nd layer= 15X15

Without extra 1 cluster cut

With extra 1 cluster cut

Conclusion

- The extra cut doesn't help much. It lowers the second peak a bit, but also the first one, so this isn't very useful.

- Last week a test was done with a search area in the third layer. This turned out to not be useful as well.