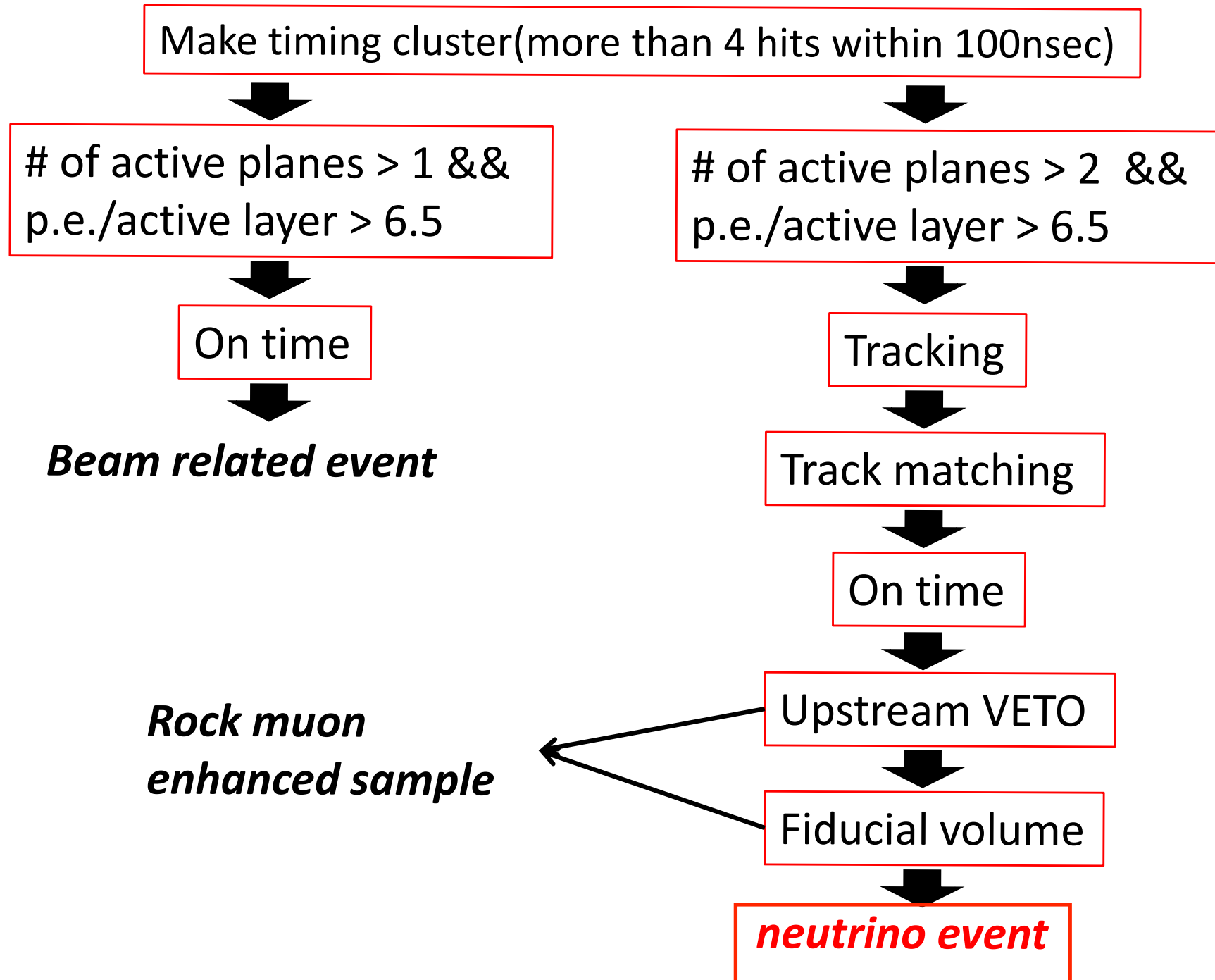




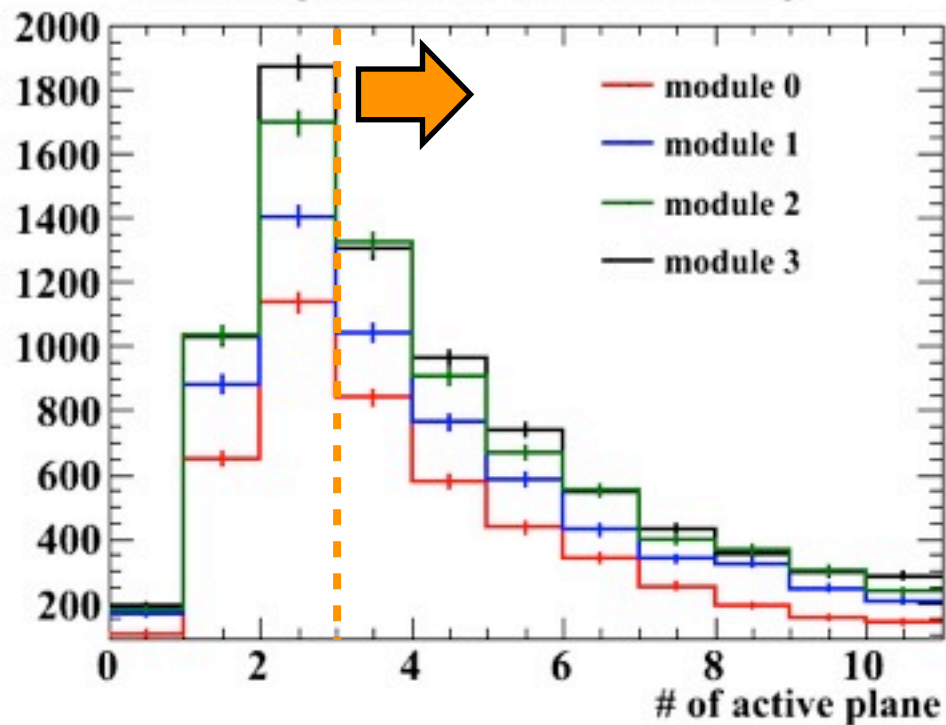
# Analysis flow chart



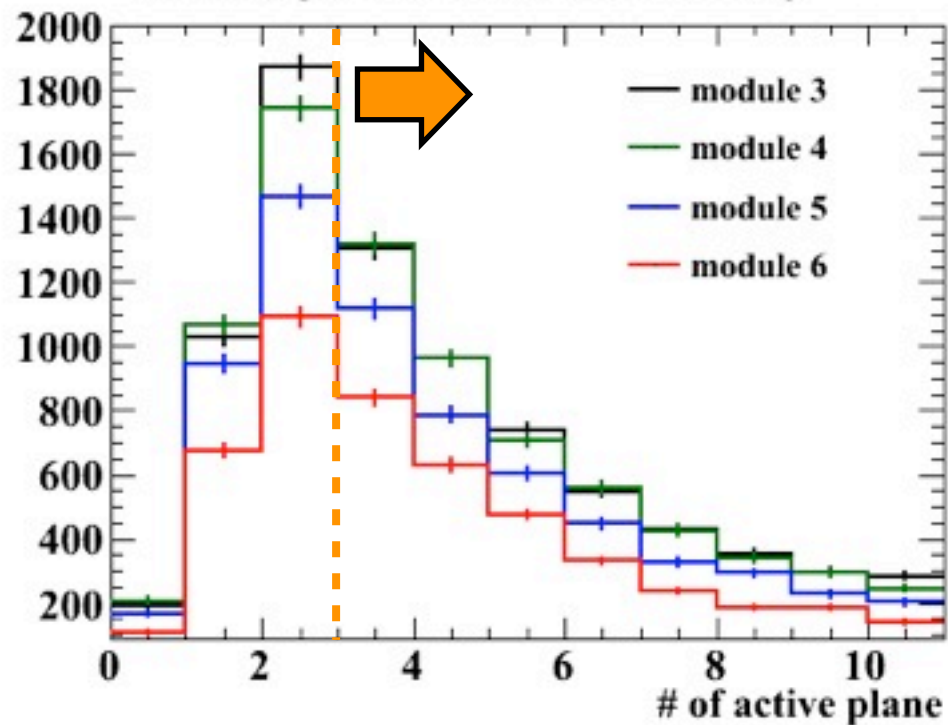
# # of active plane

- Time Cluster cut

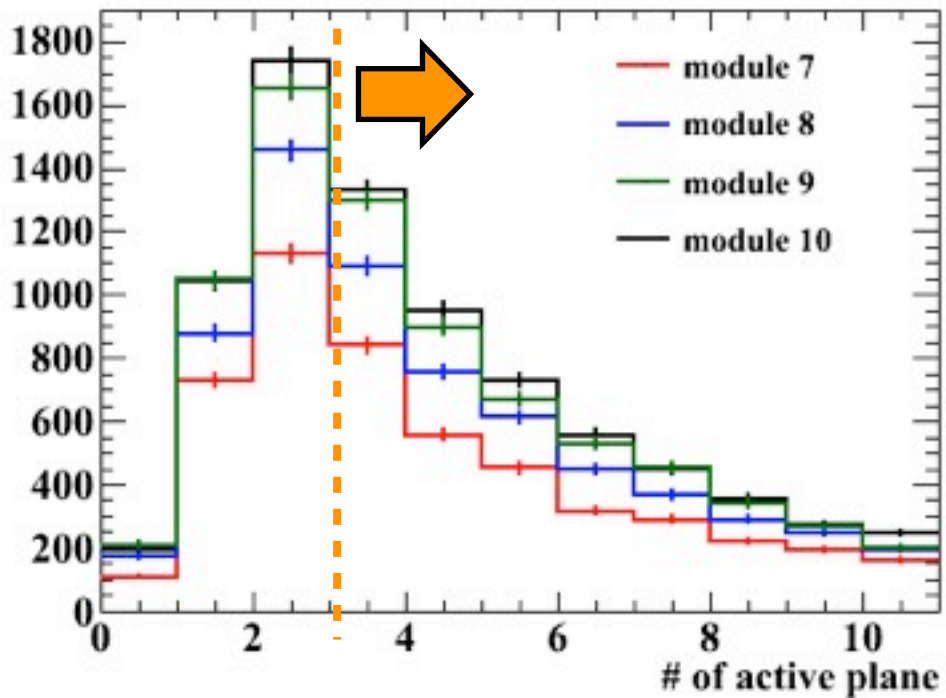
# of active plane at module 3 (Time Clustering)



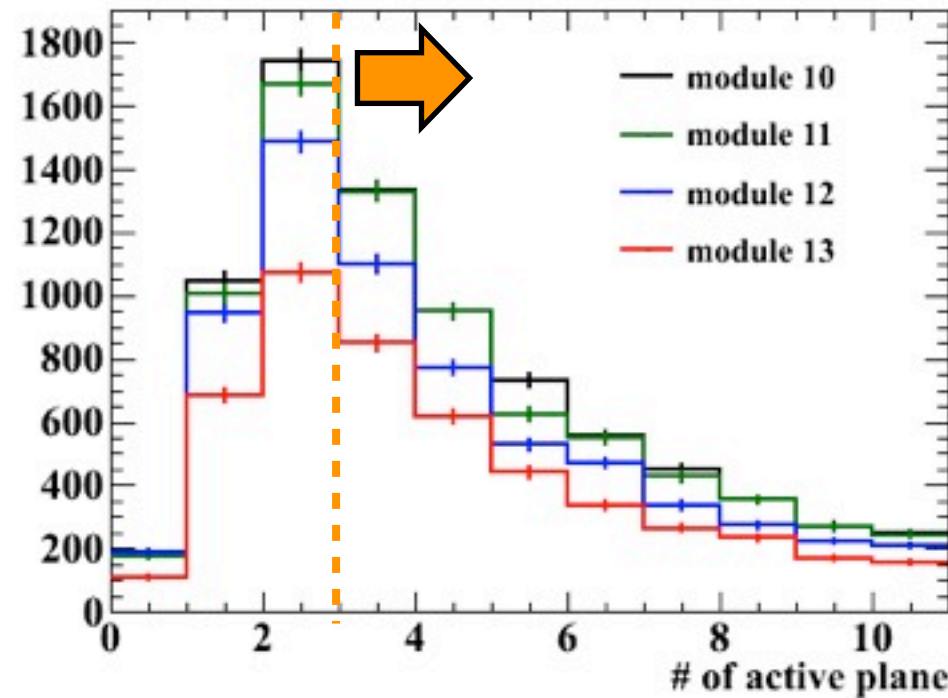
# of active plane at module 3 (Time Clustering)



# of active plane at module 10 (Time Clustering)



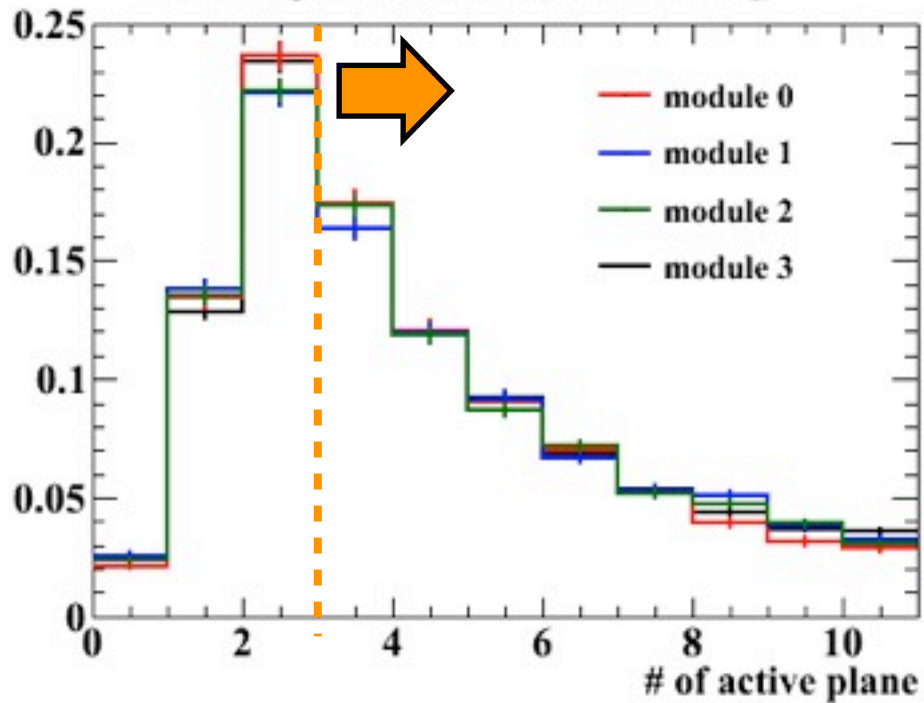
# of active plane at module 10 (Time Clustering)



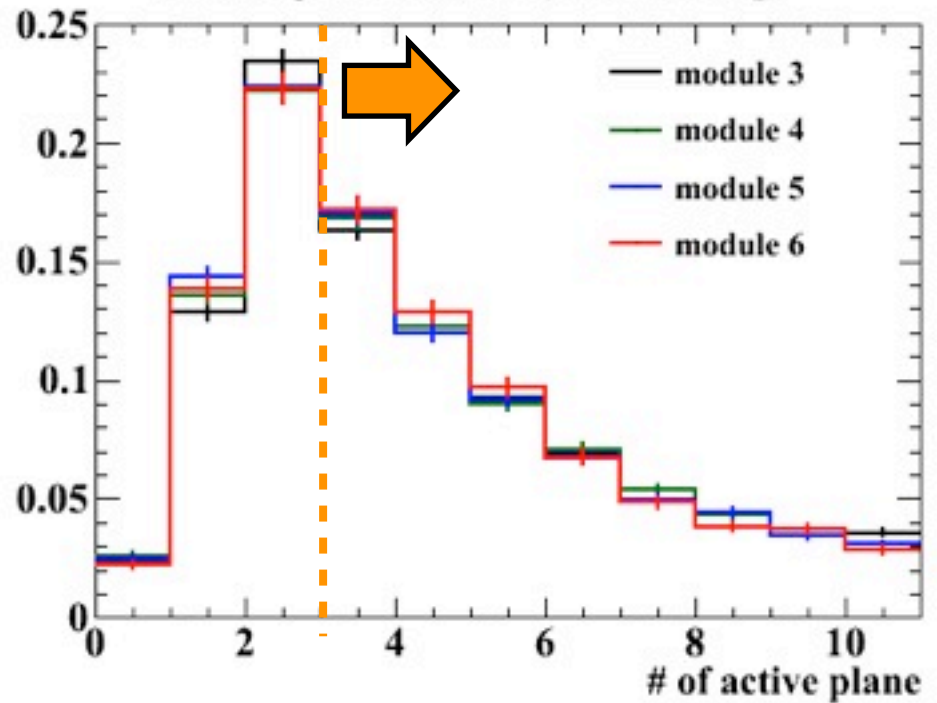
# Normalized # of active plane

- normalized by area

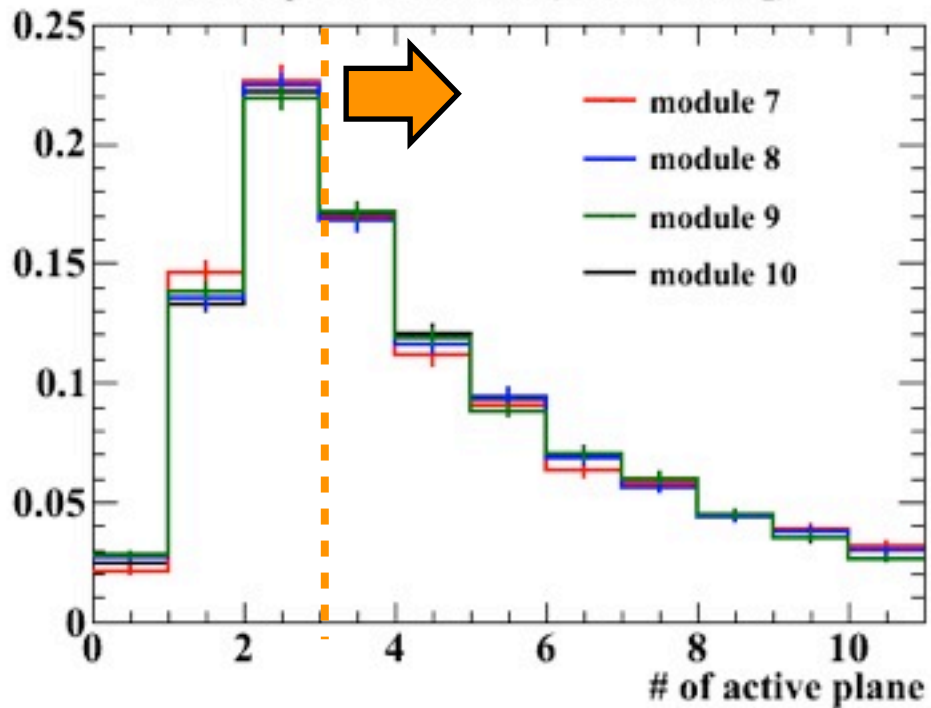
# of active plane at module 3 (Time Clustering)



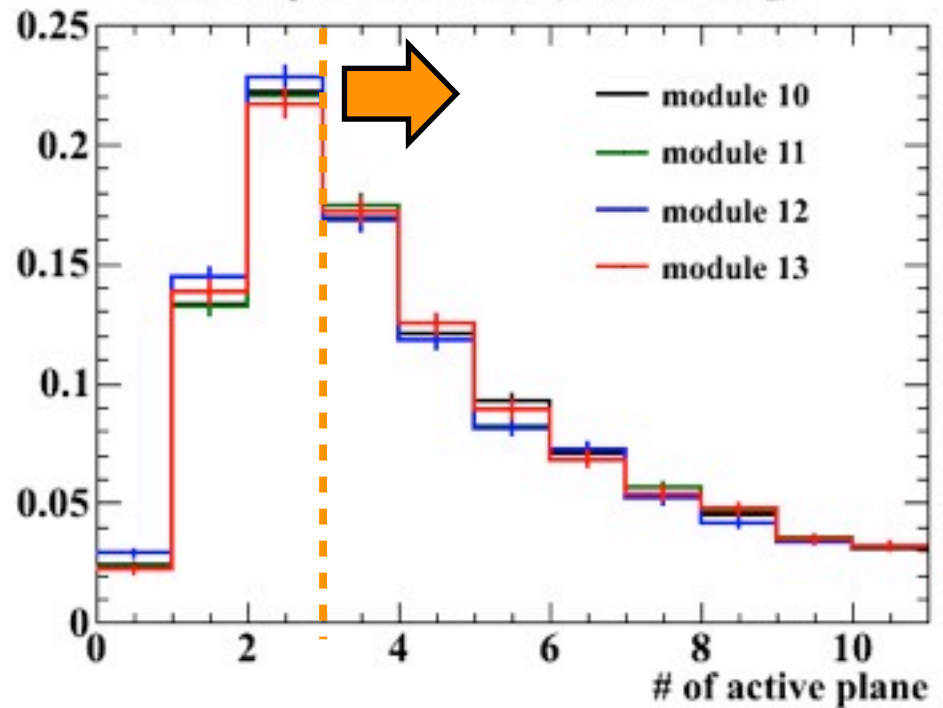
# of active plane at module 3 (Time Clustering)



# of active plane at module 10 (Time Clustering)



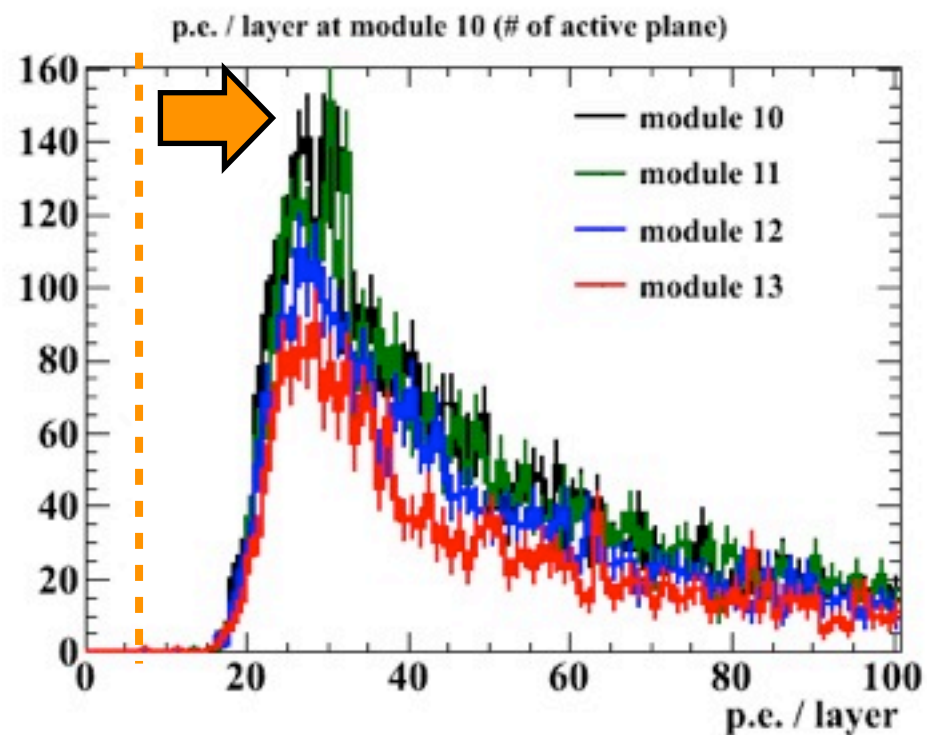
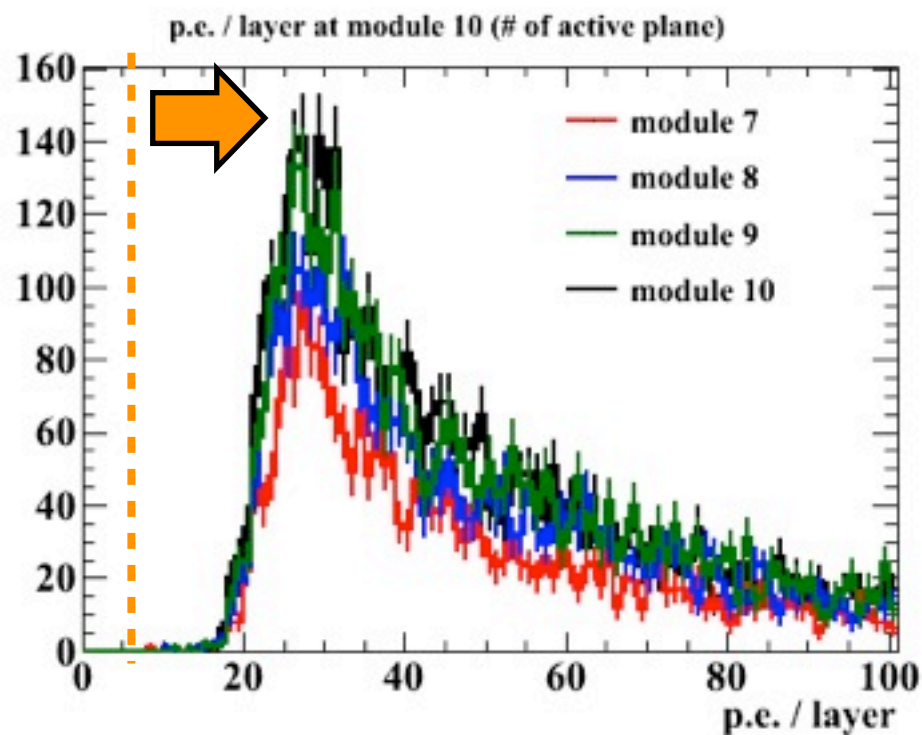
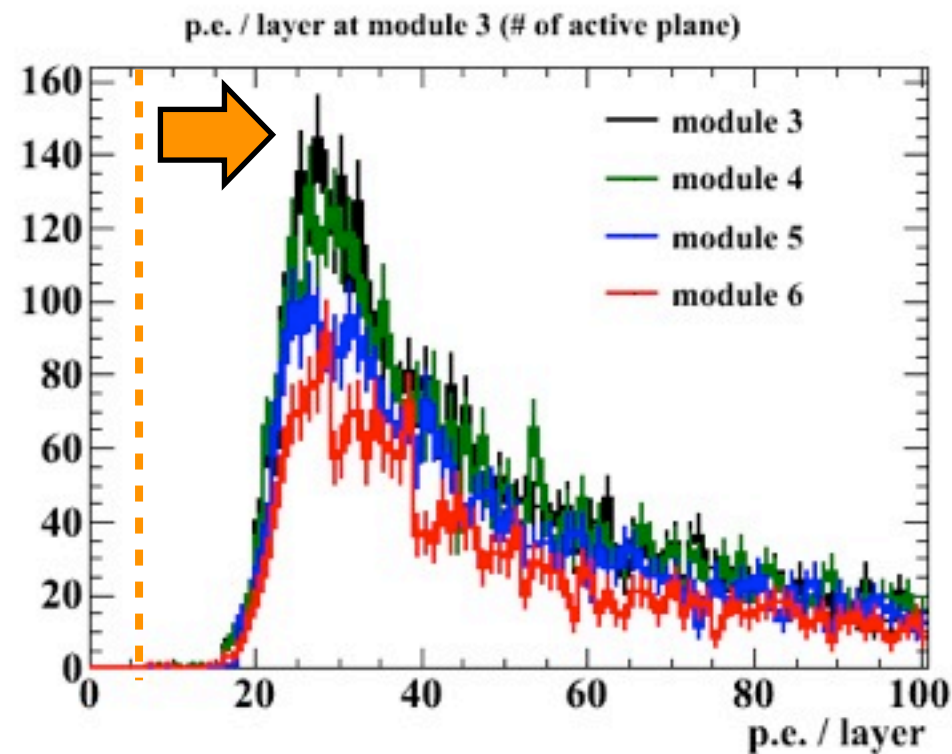
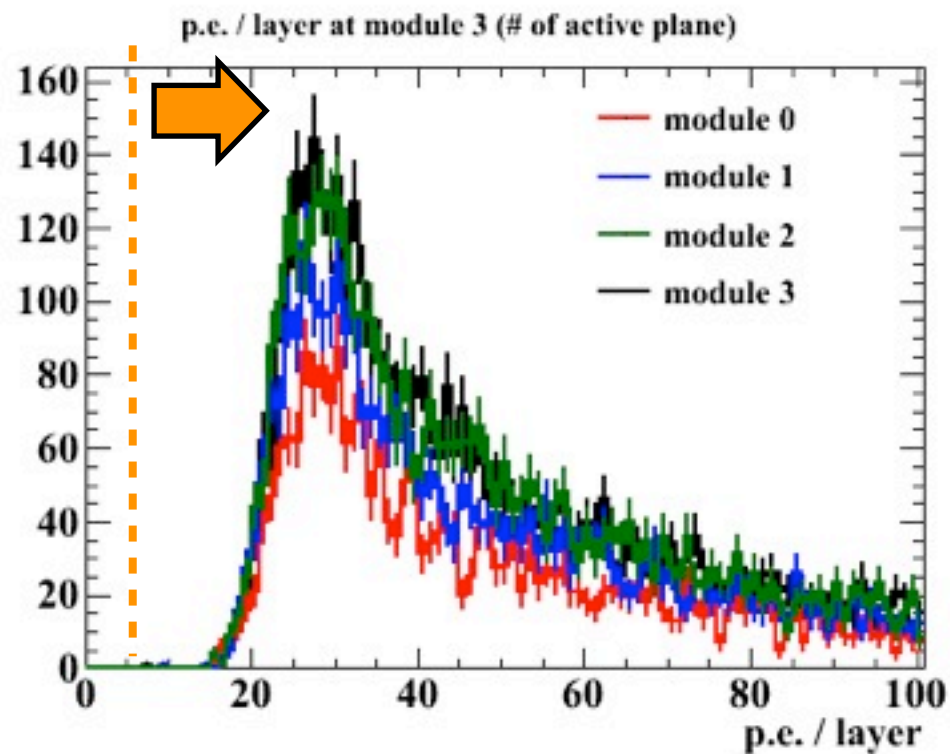
# of active plane at module 10 (Time Clustering)



# p.e. / layer

- Time cluster cut
- # of active plane  $> 2$

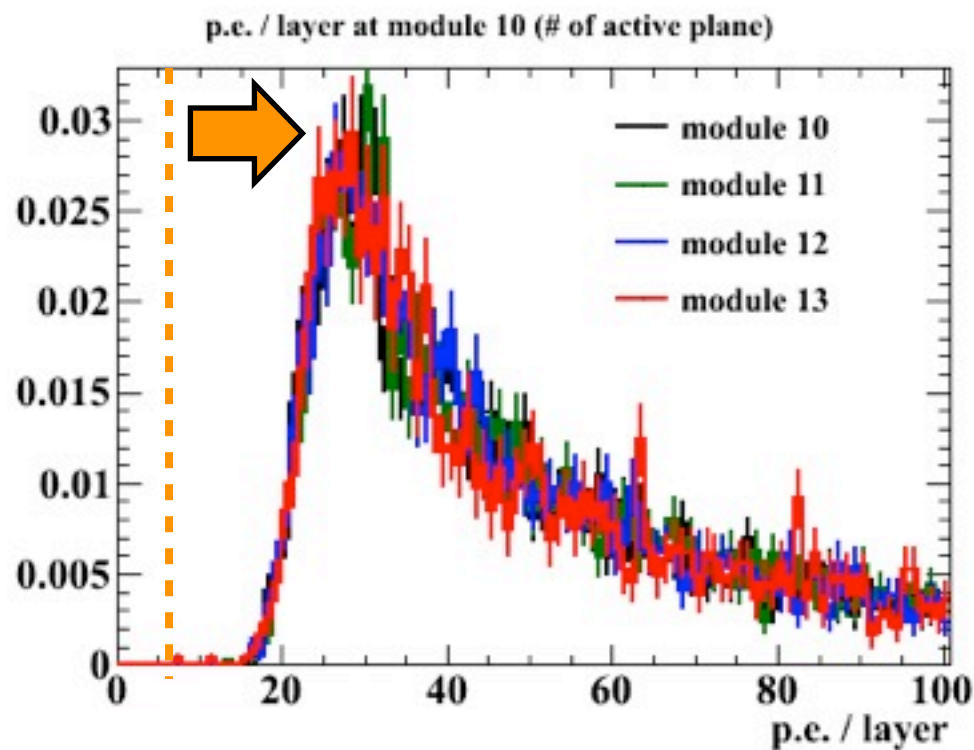
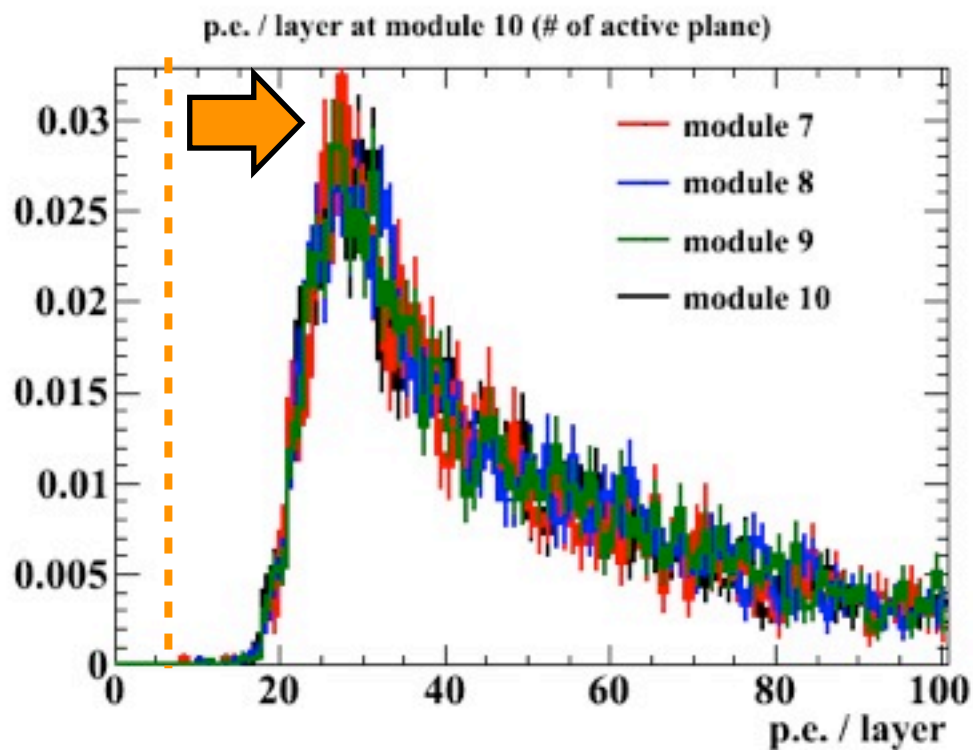
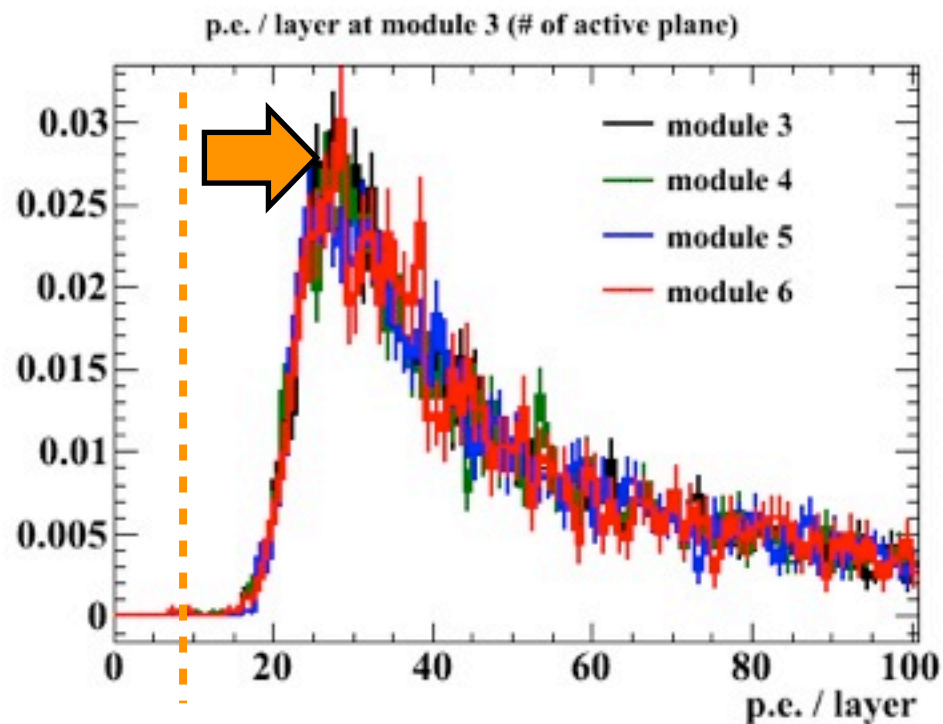
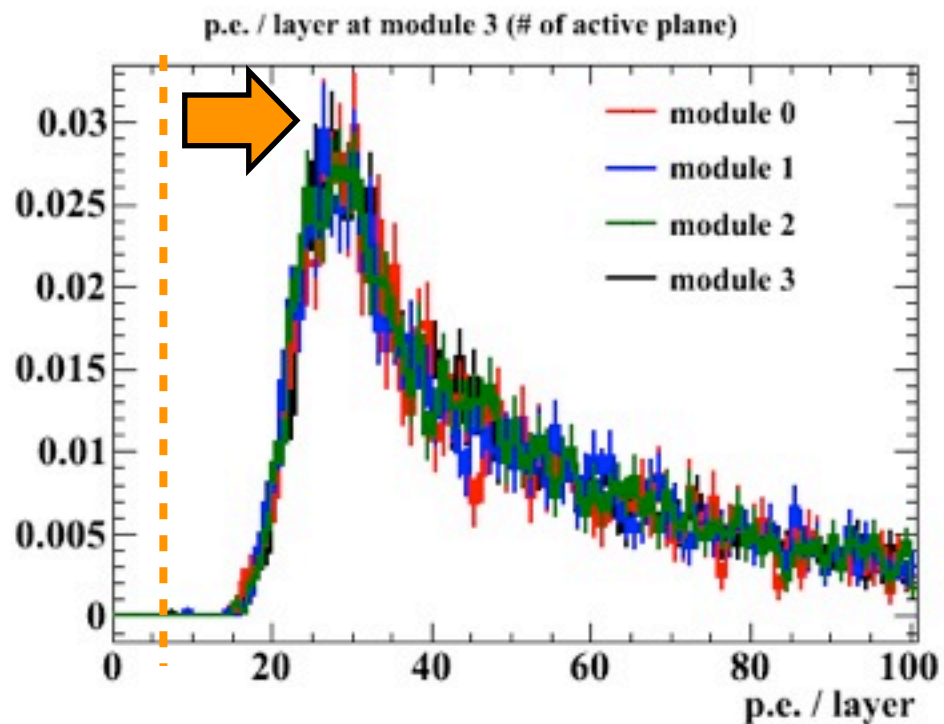






# Normalized p.e. / layer

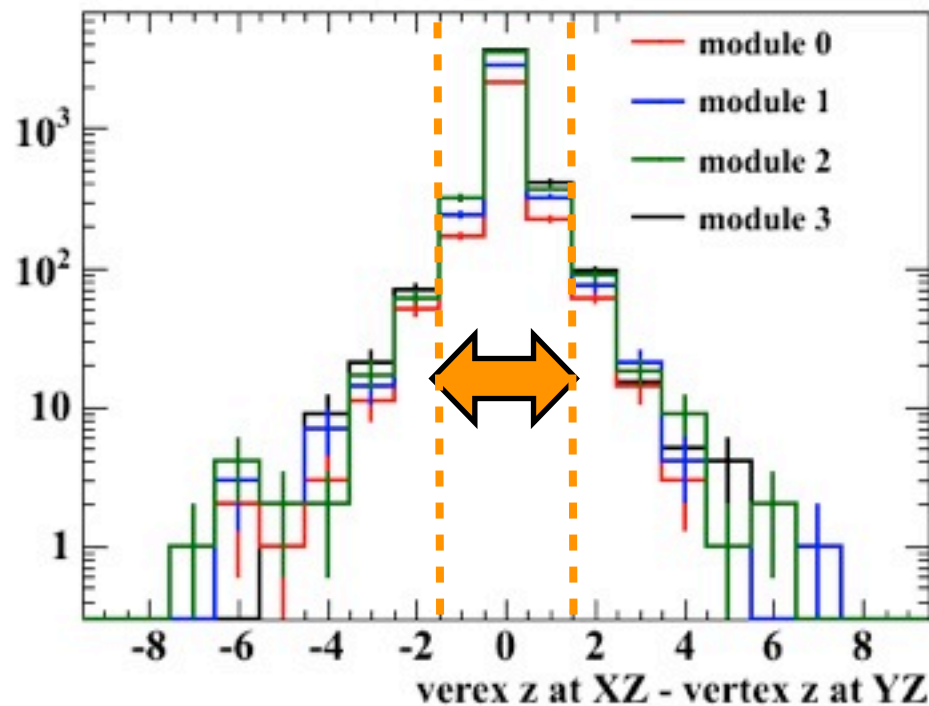
- normalized by area



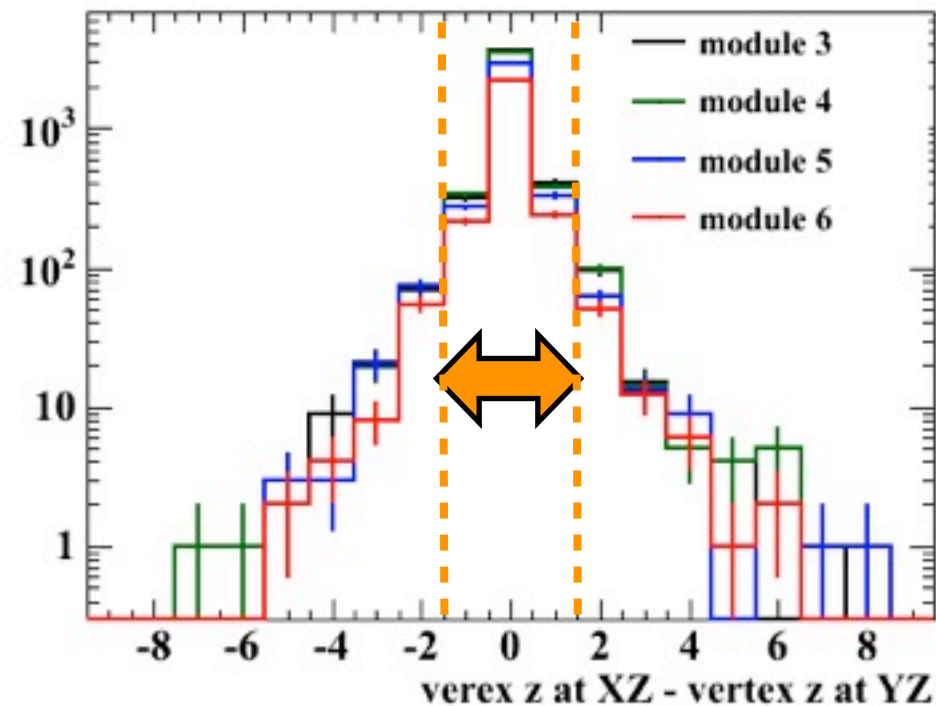
# XZ and YZ track matching

- Time Cluster cut
- # of active plane  $> 2$
- p.e. / layer  $> 6.5$
- Tracking

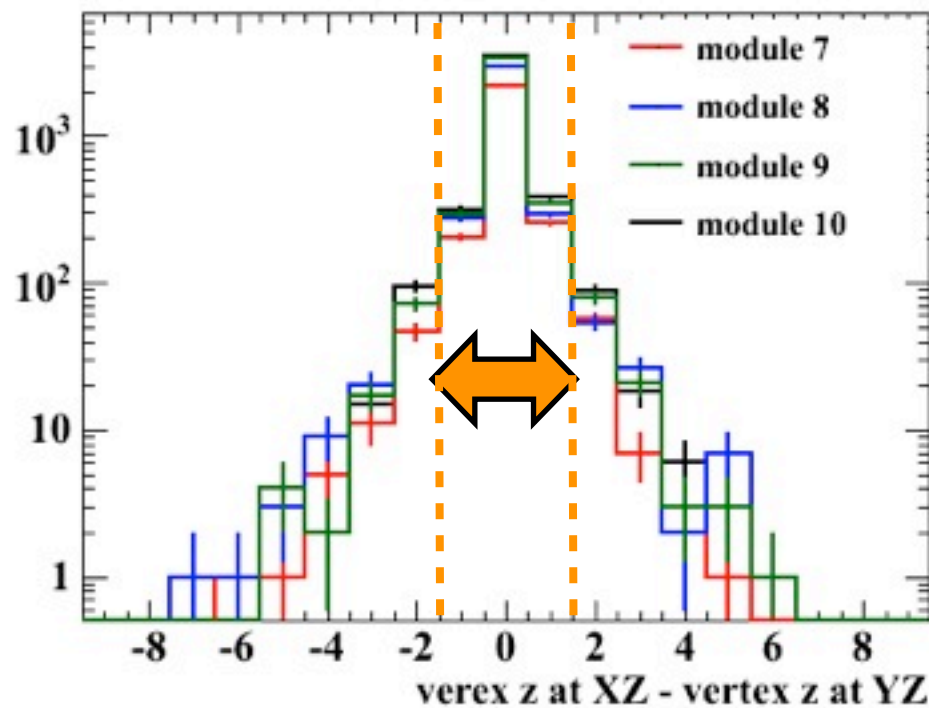
Vertex XZ - Vertex YZ at Mod3 (+p.e./layer &gt; 6.5)



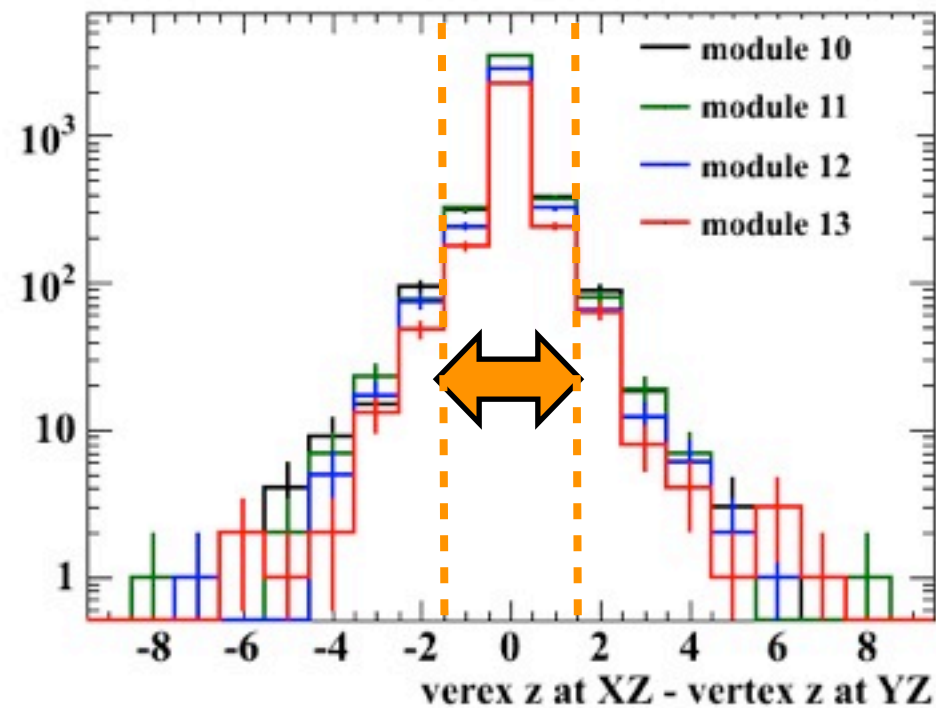
Vertex XZ - Vertex YZ at Mod3 (+p.e./layer &gt; 6.5)



Vertex XZ - Vertex YZ at Mod10 (+p.e./layer &gt; 6.5)



Vertex XZ - Vertex YZ at Mod10 (+p.e./layer &gt; 6.5)

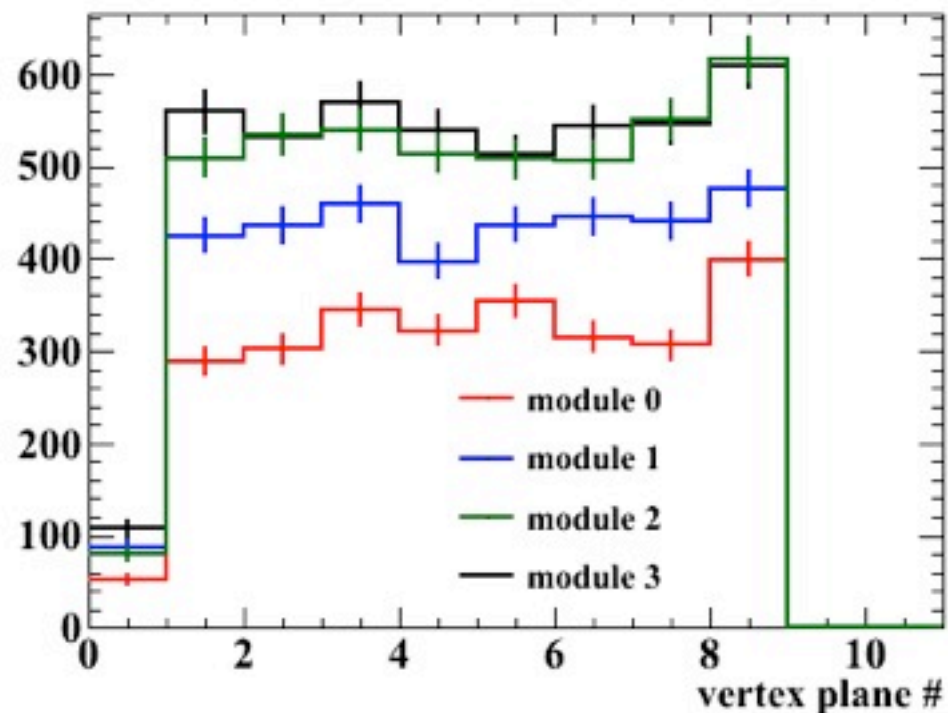


# Upstream VETO

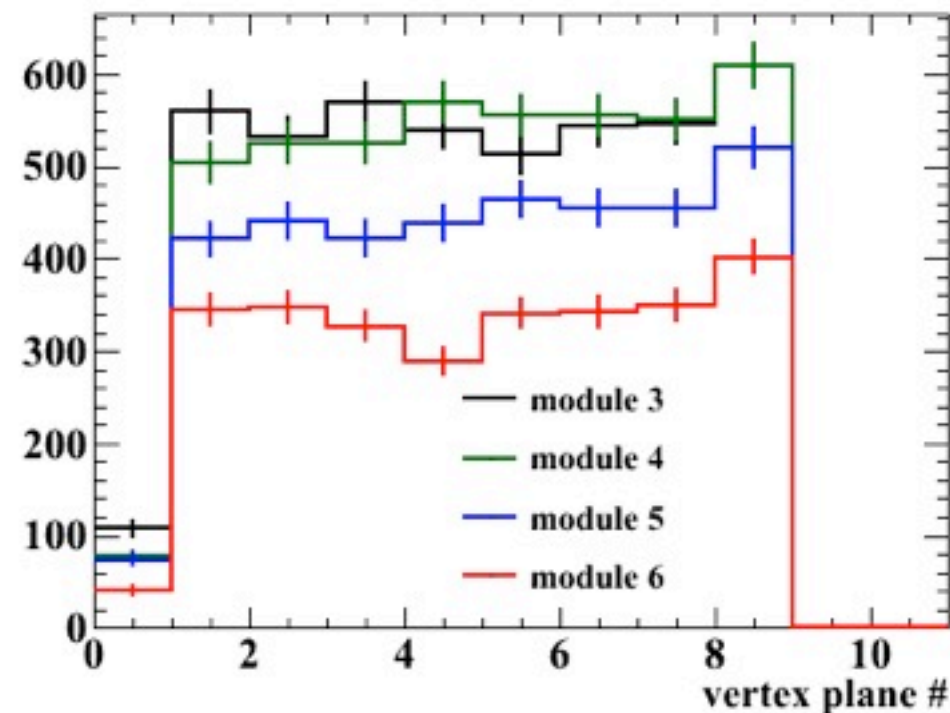
- Time Cluster cut
- # of active plane  $> 2$
- p.e. / layer  $> 6.5$
- Tracking
- Track matching



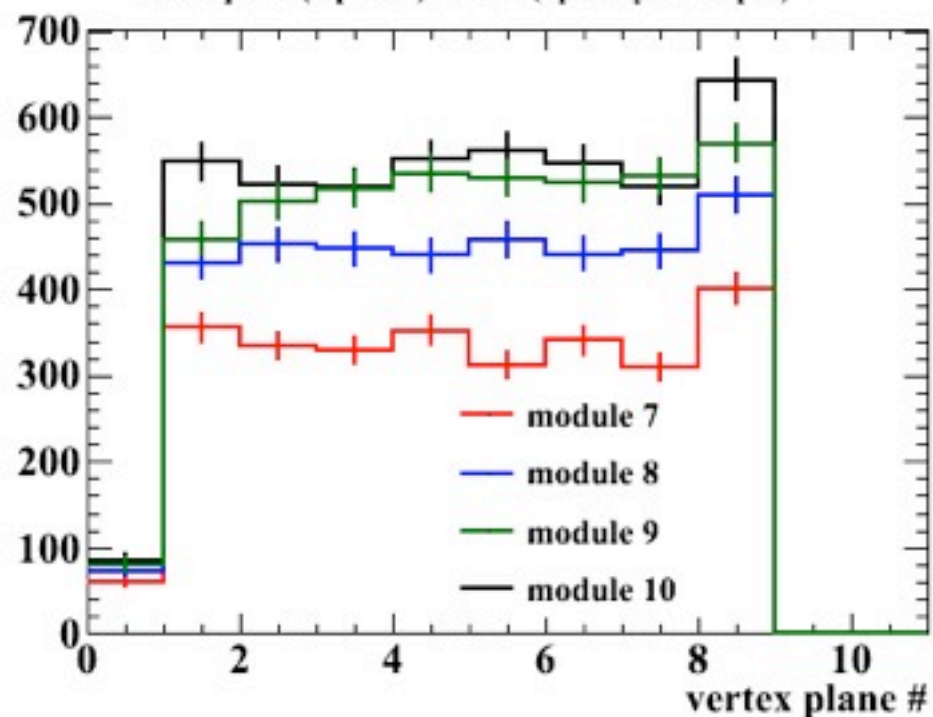
Vertex plane (top view) Mod3 (+p.e./layer>6.5 p.e.)



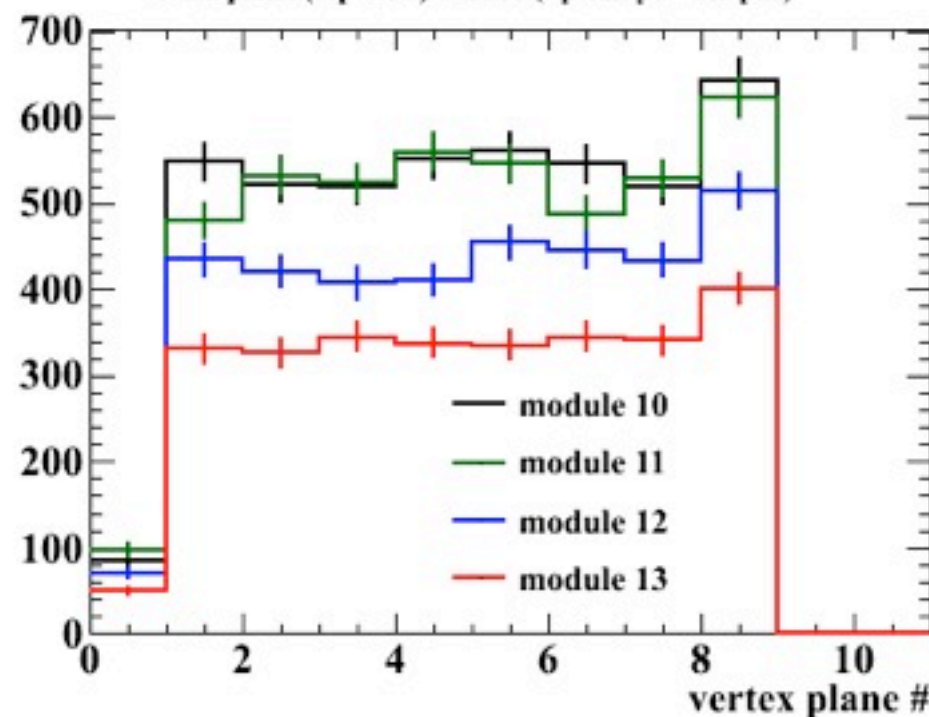
Vertex plane (top view) Mod3 (+p.e./layer>6.5 p.e.)



Vertex plane (top view) Mod10 (+p.e./layer>6.5 p.e.)



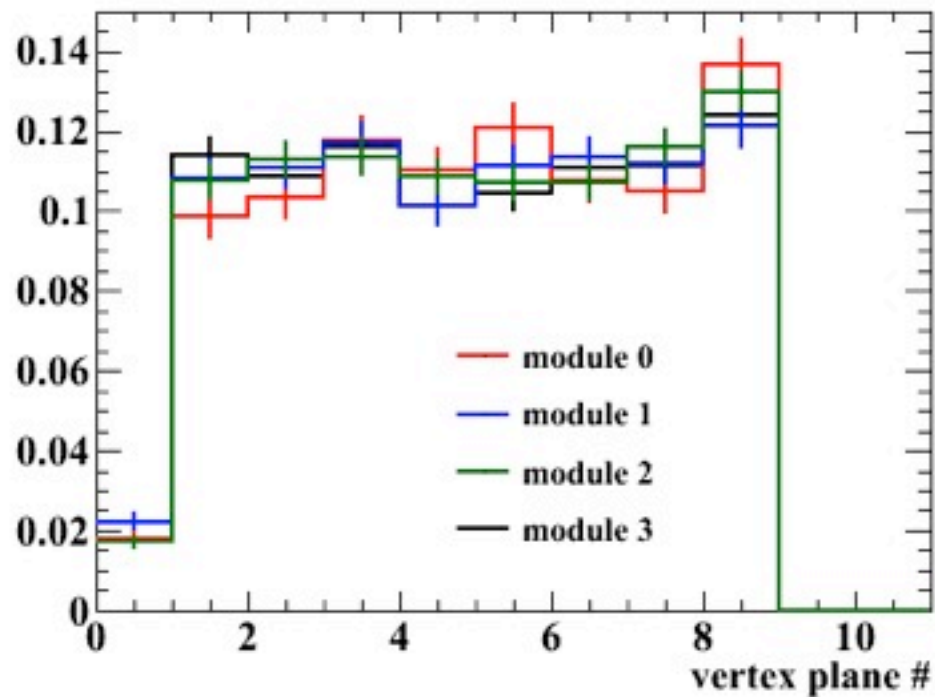
Vertex plane (top view) Mod10 (+p.e./layer>6.5 p.e.)



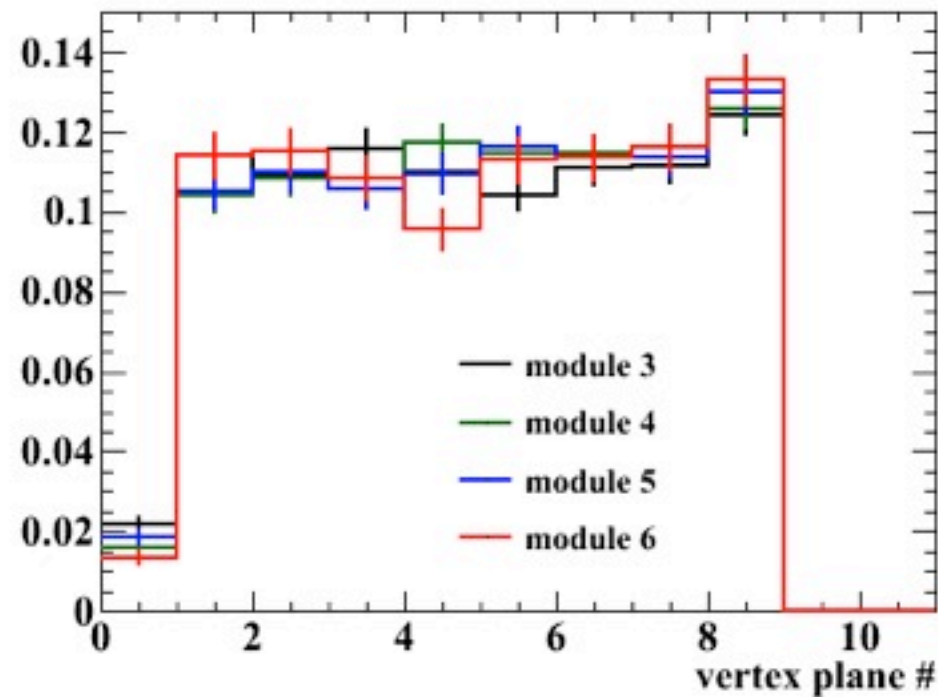
# Normalized Upstream VETO



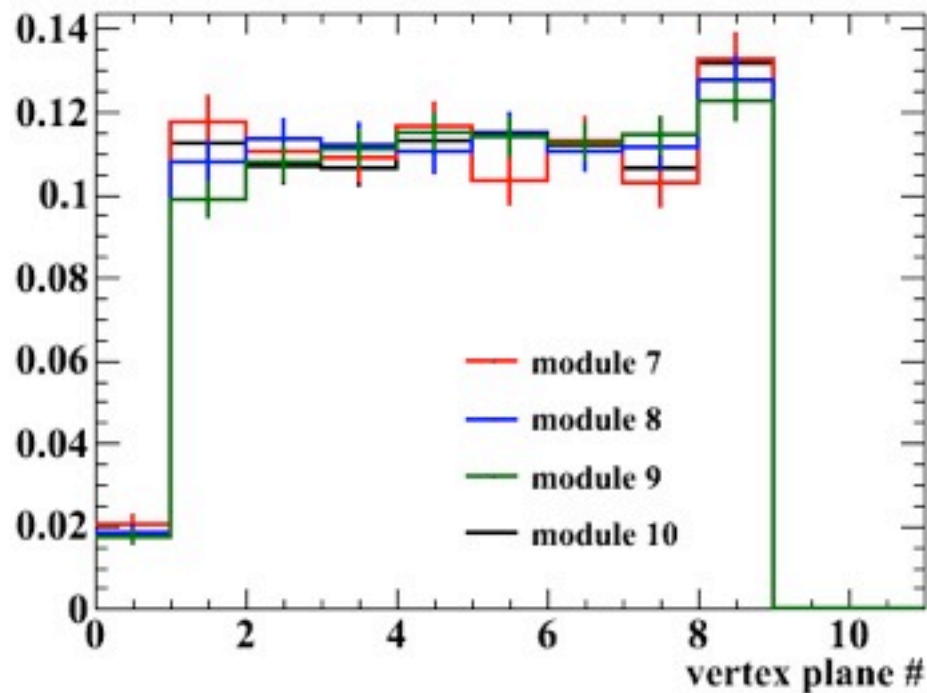
Vertex plane (top view) Mod3 (+p.e./layer&gt;6.5 p.e.)



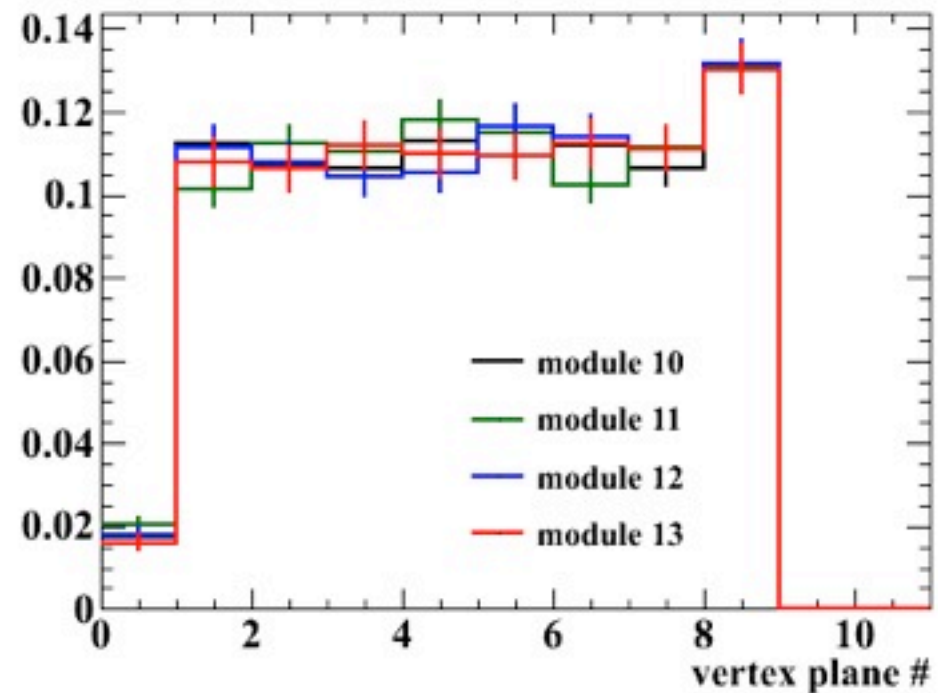
Vertex plane (top view) Mod3 (+p.e./layer&gt;6.5 p.e.)



Vertex plane (top view) Mod10 (+p.e./layer&gt;6.5 p.e.)

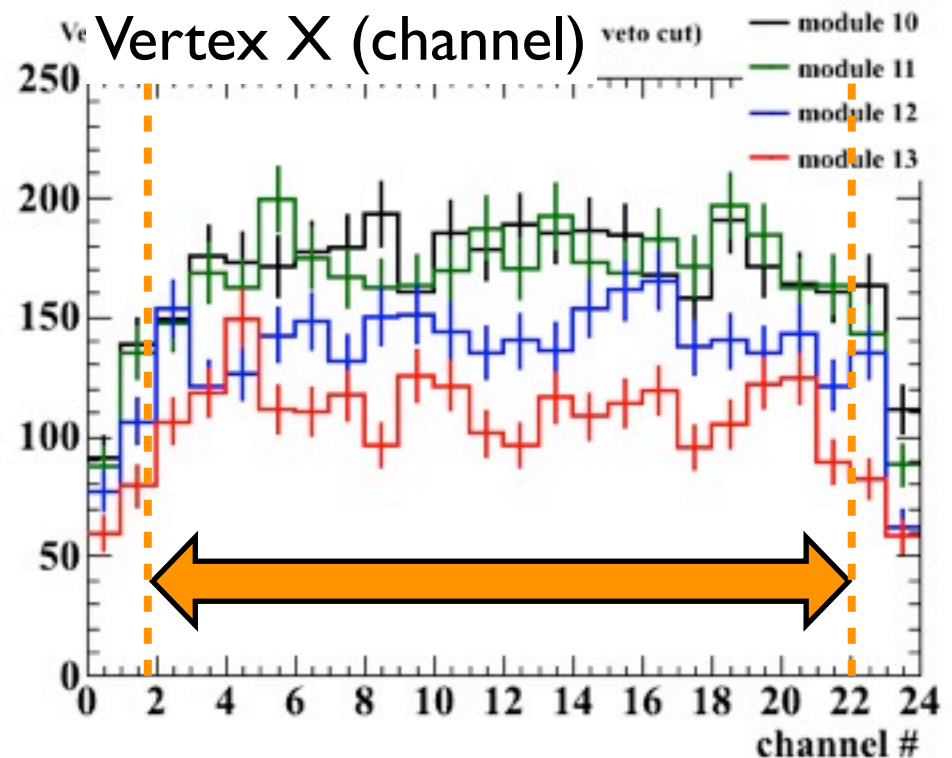
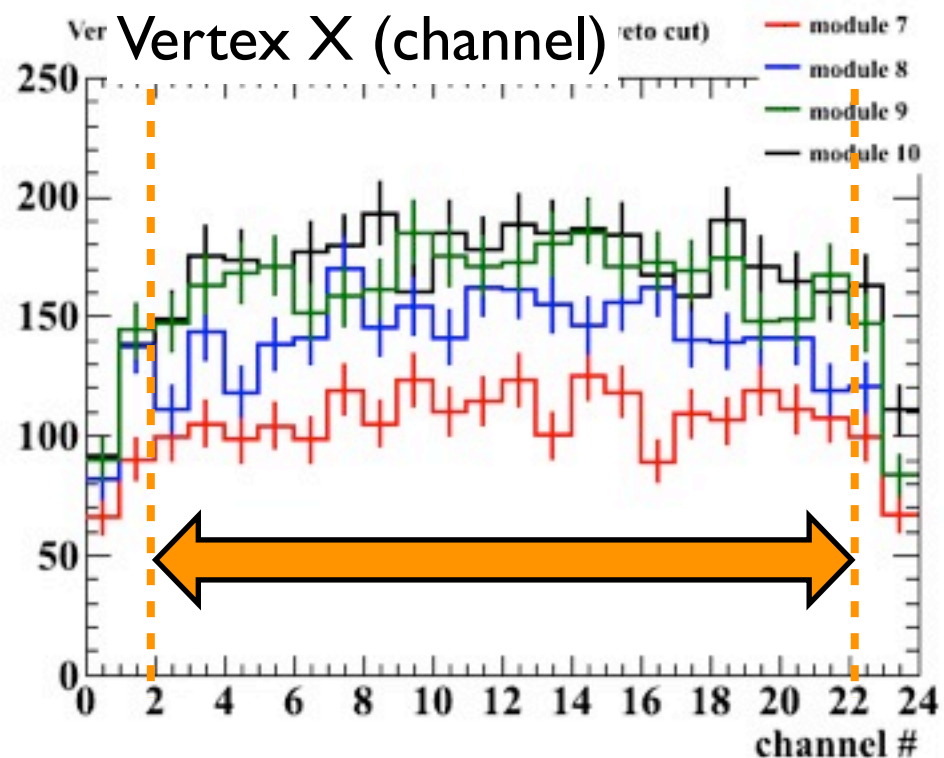
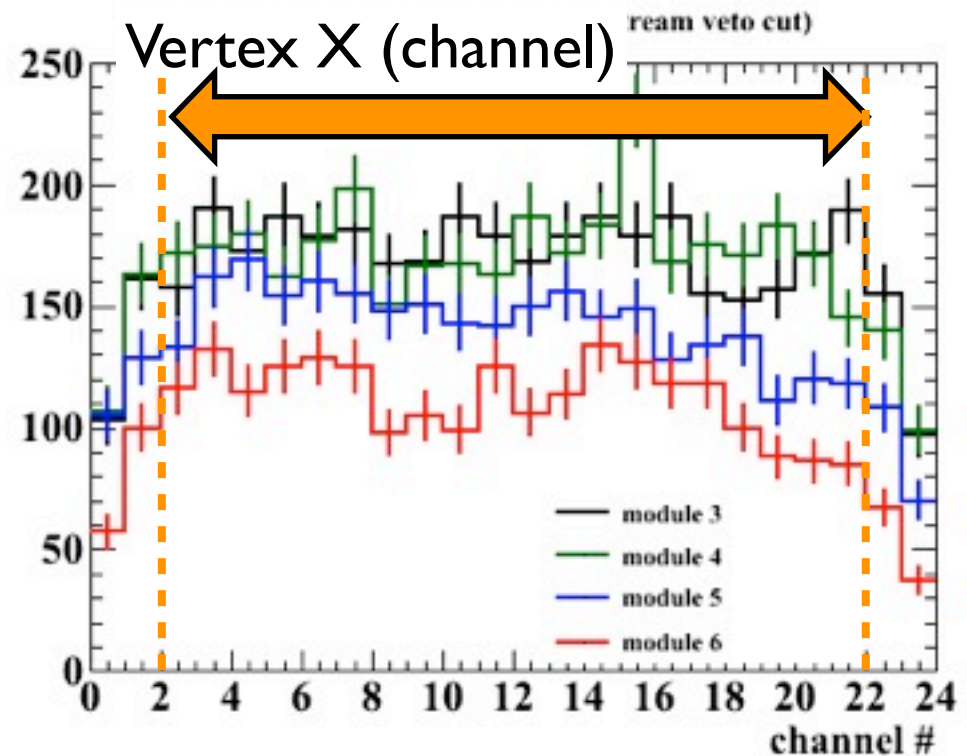
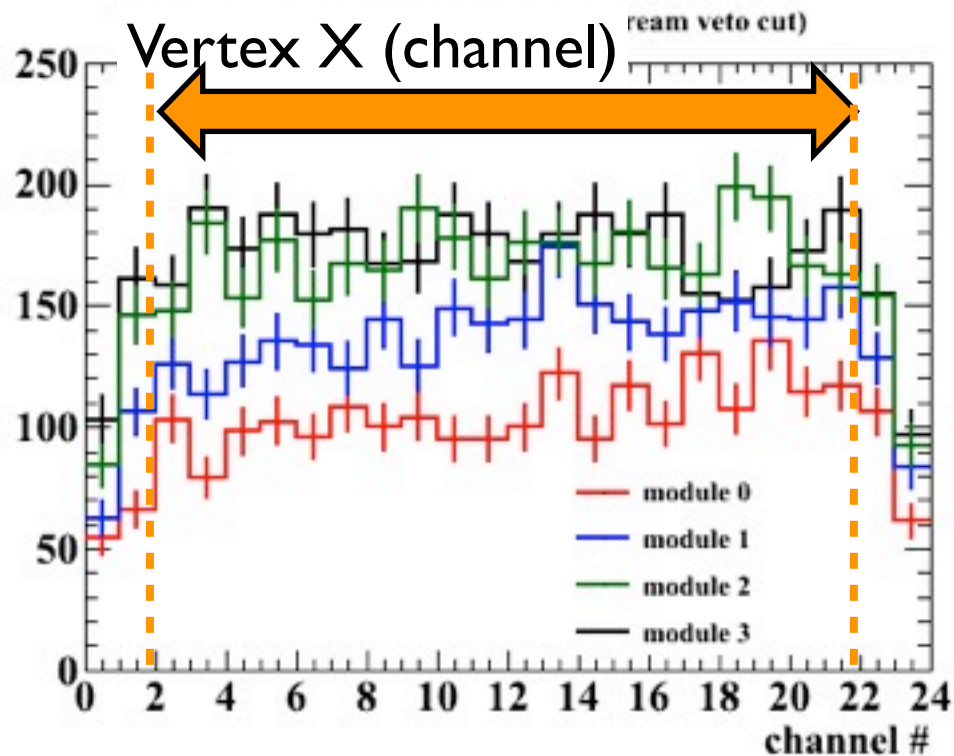


Vertex plane (top view) Mod10 (+p.e./layer&gt;6.5 p.e.)

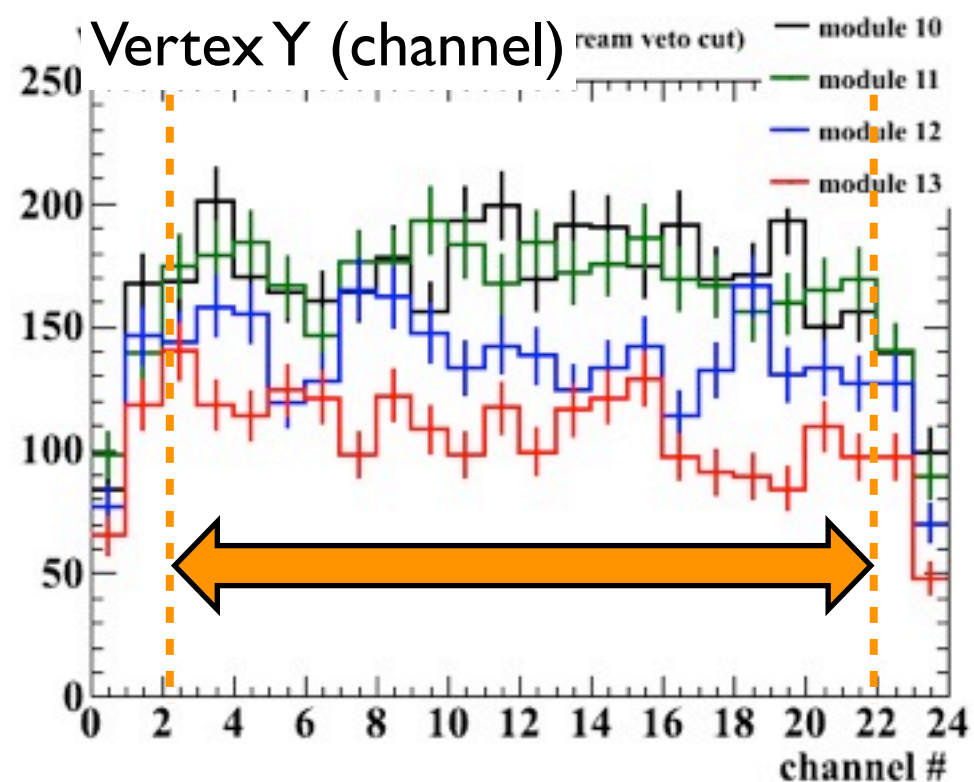
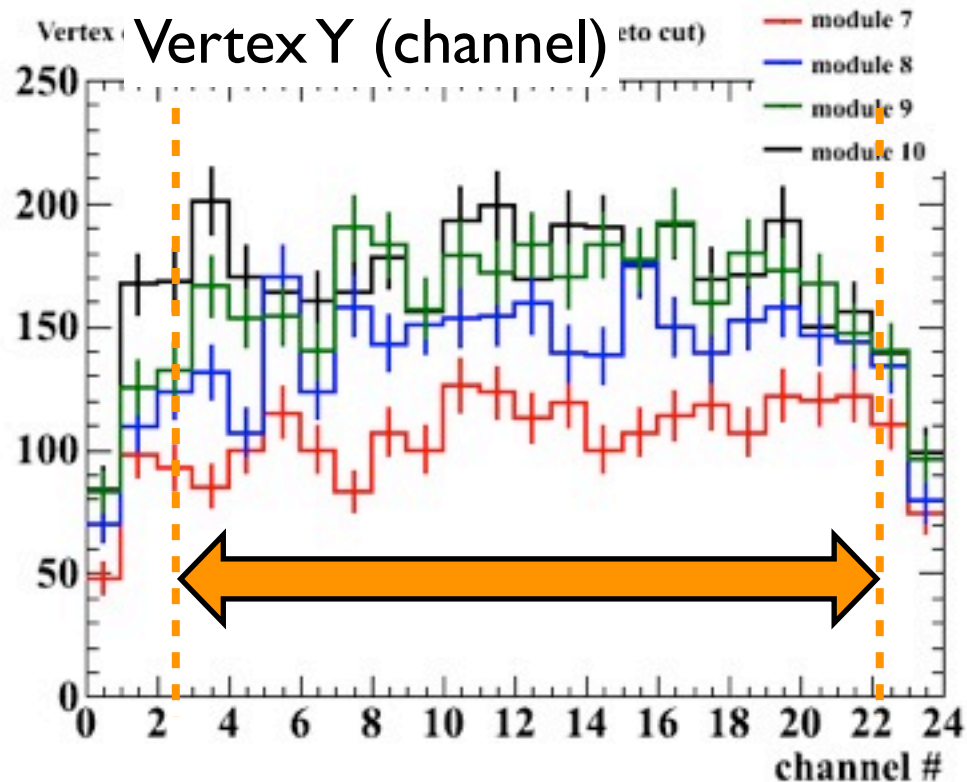
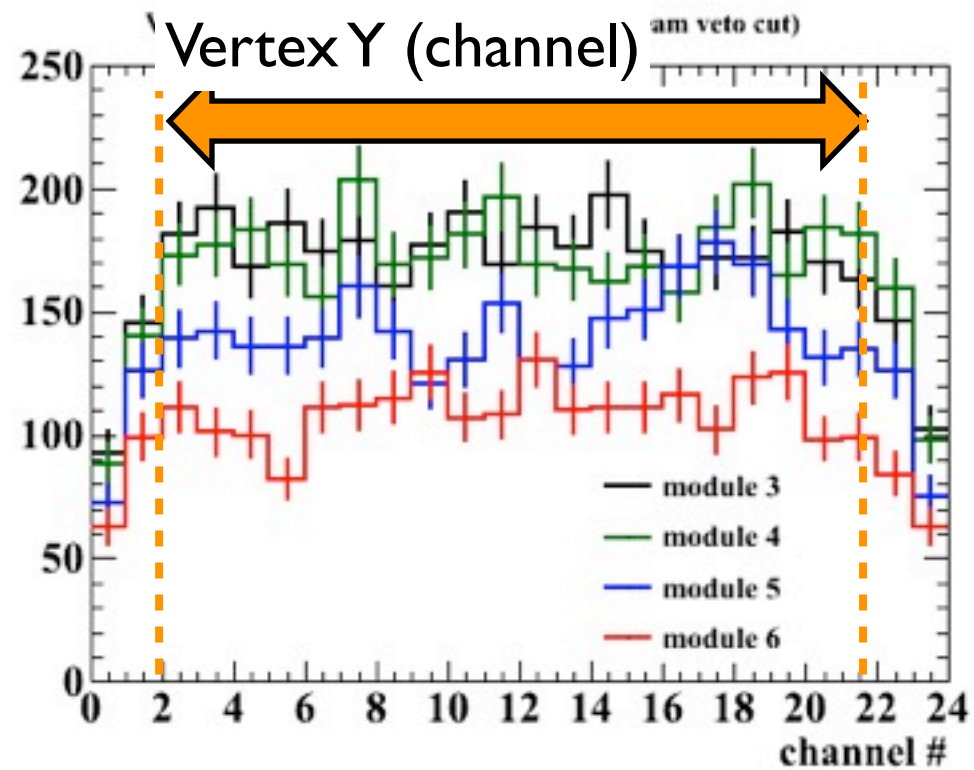
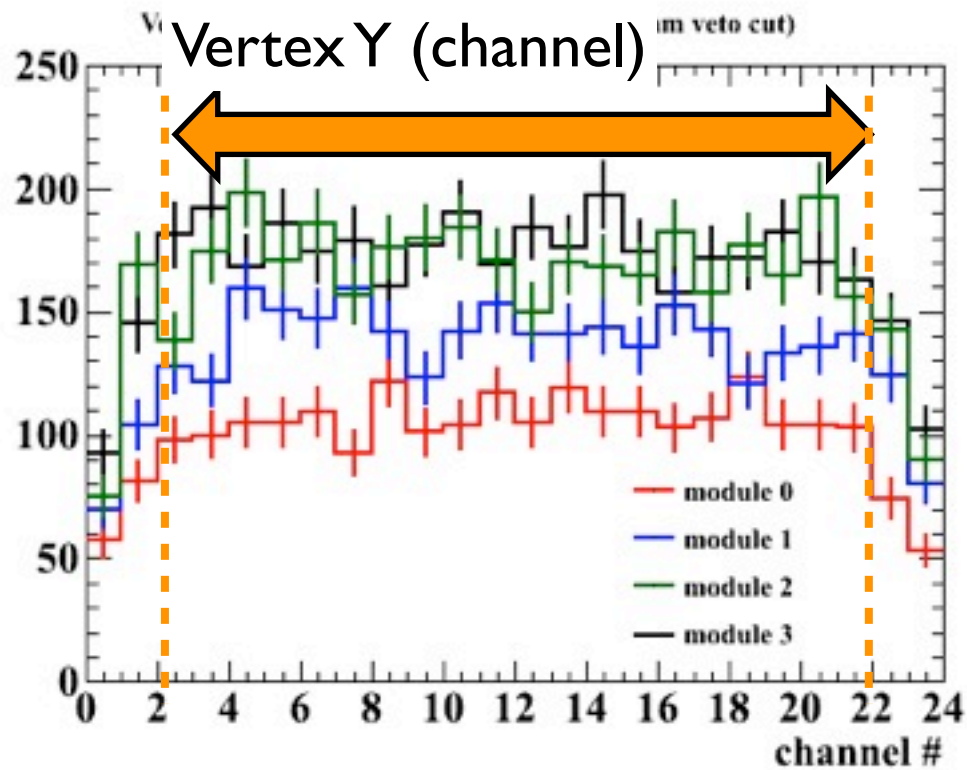


# Fiducial volume cut

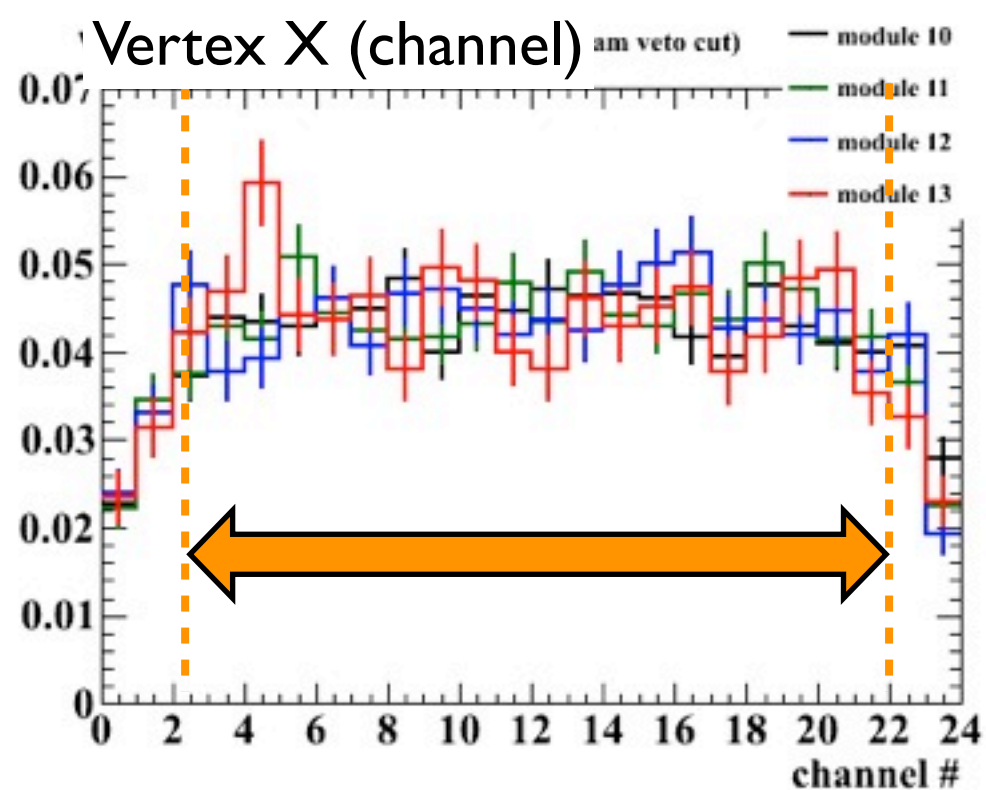
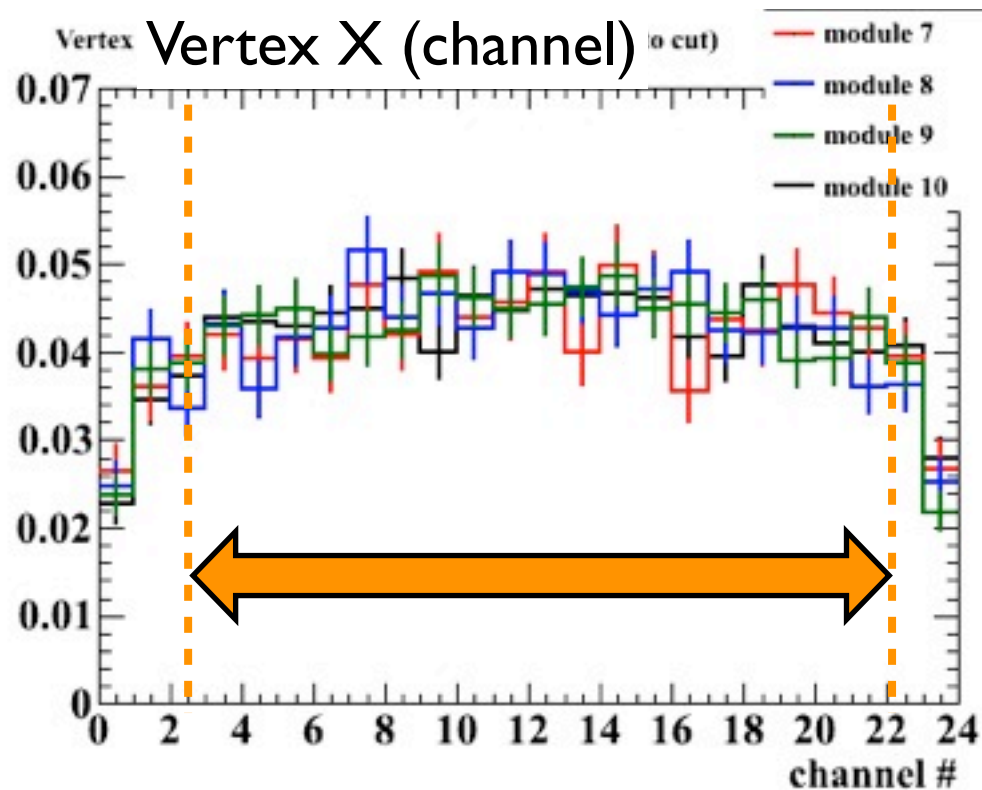
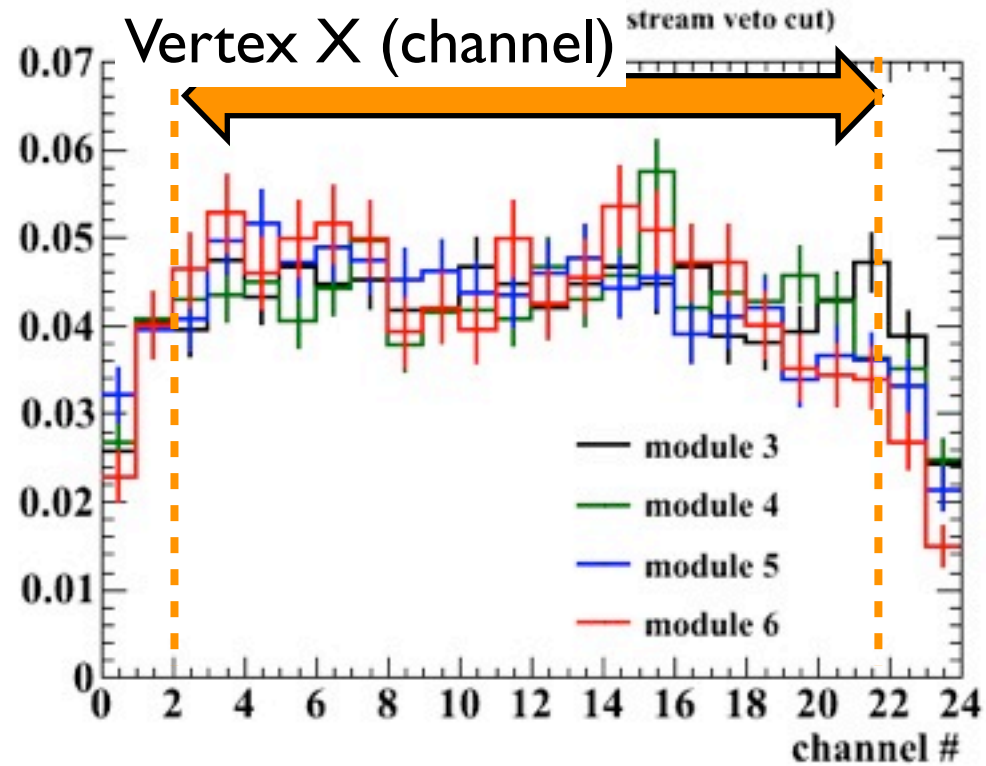
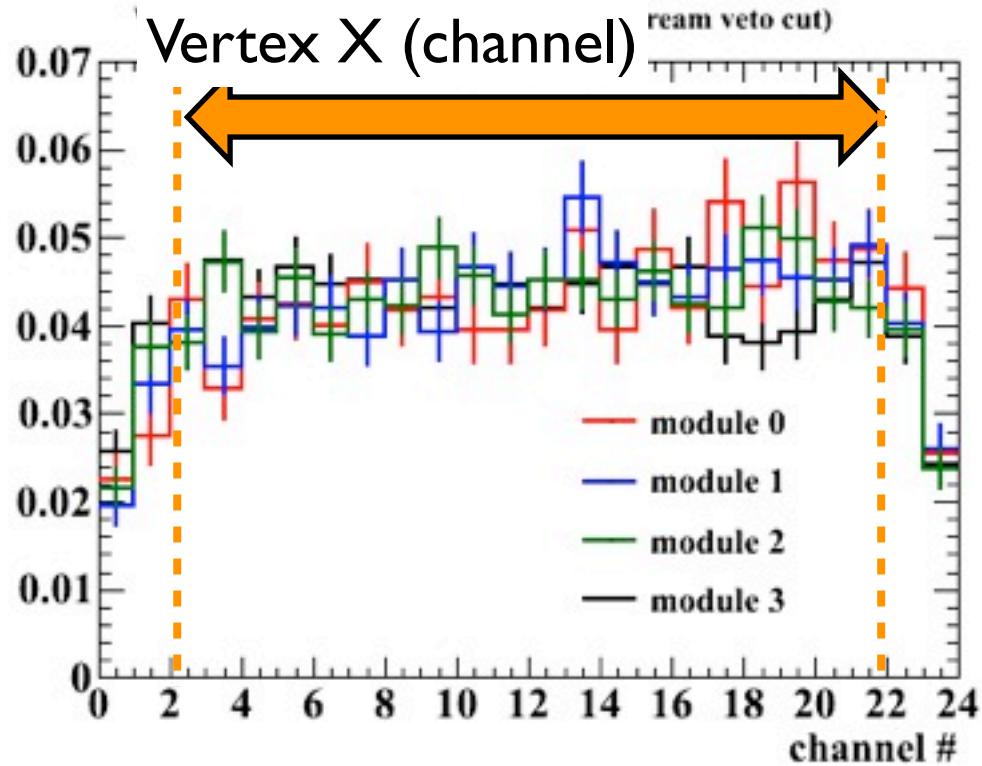
- Time Cluster cut
- # of active plane  $> 2$
- p.e. / layer  $> 6.5$
- Tracking
- Track matching
- Upstream VETO cut



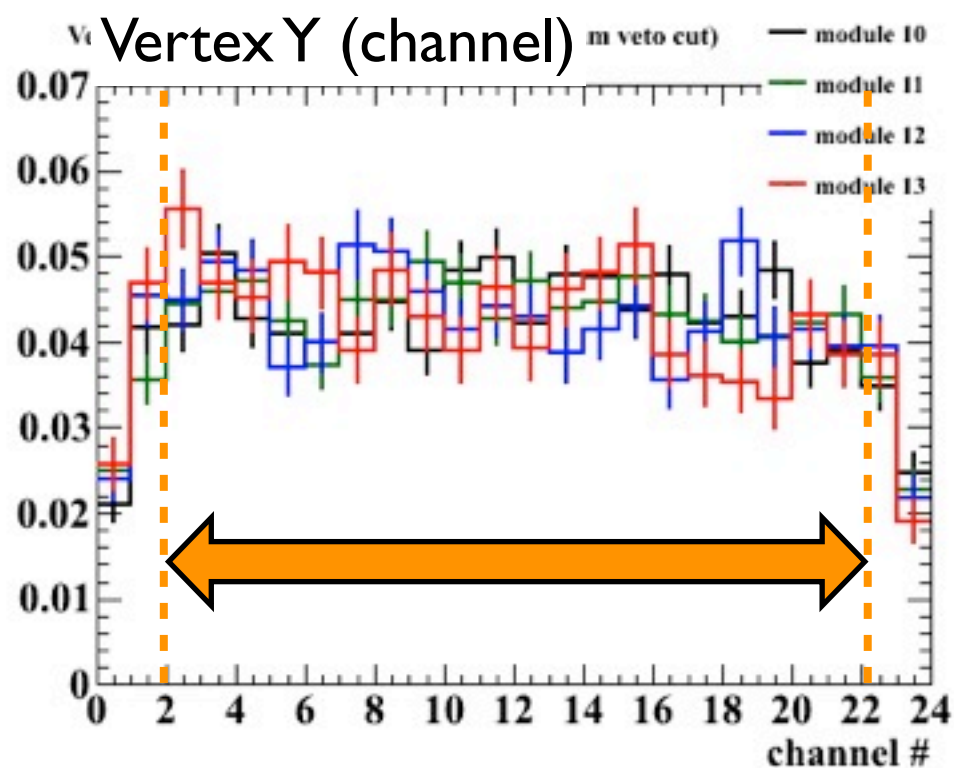
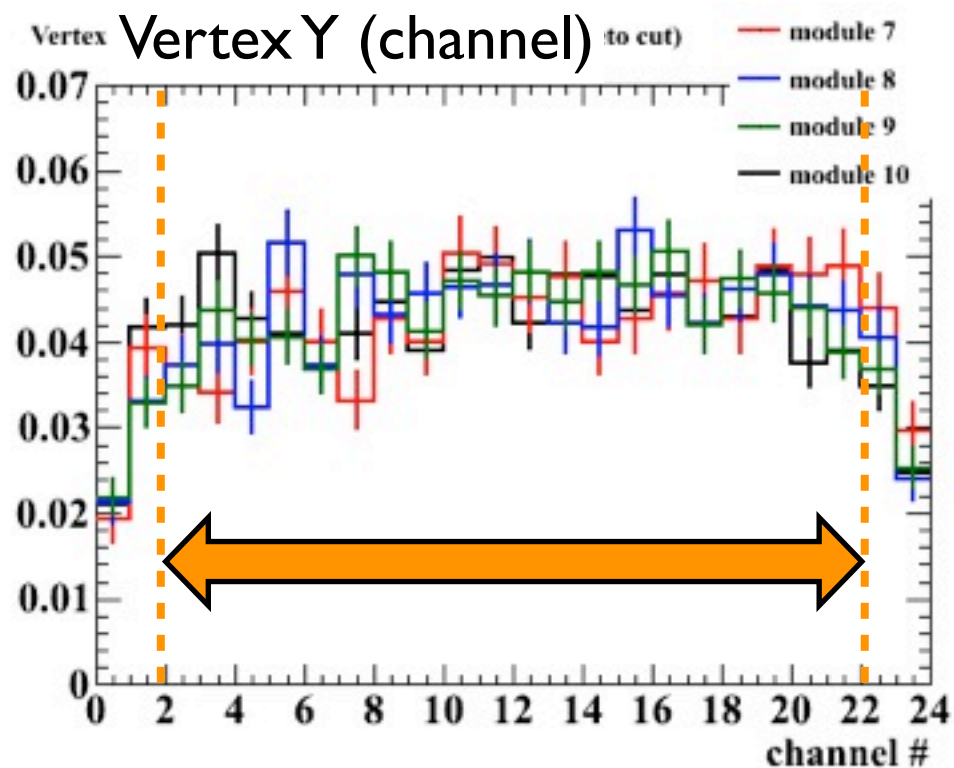
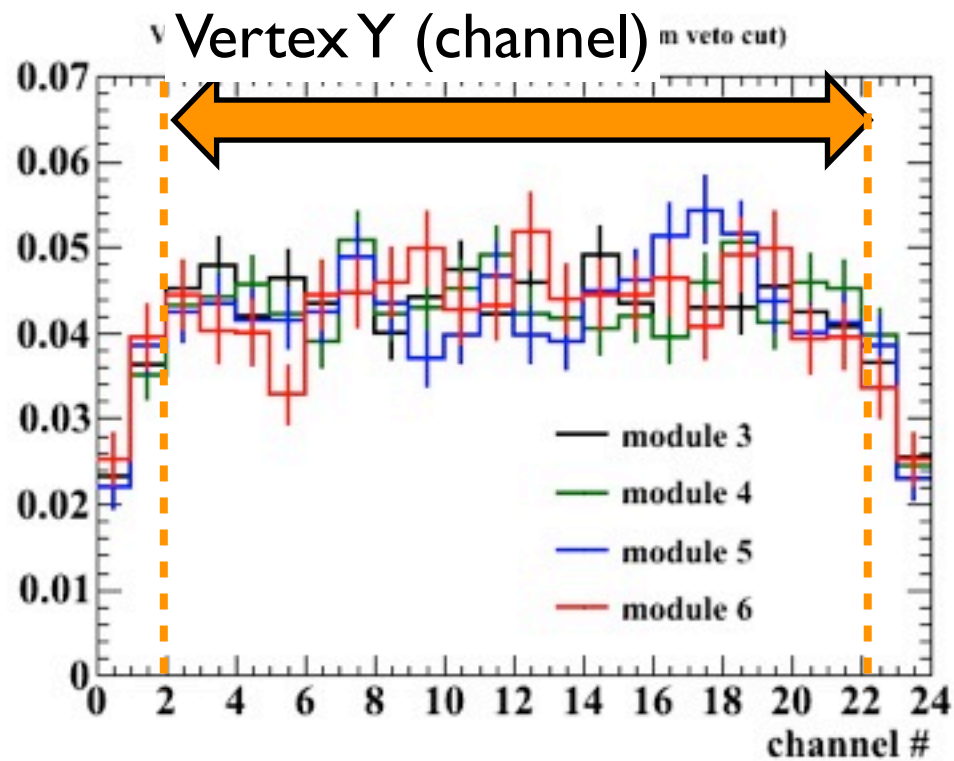
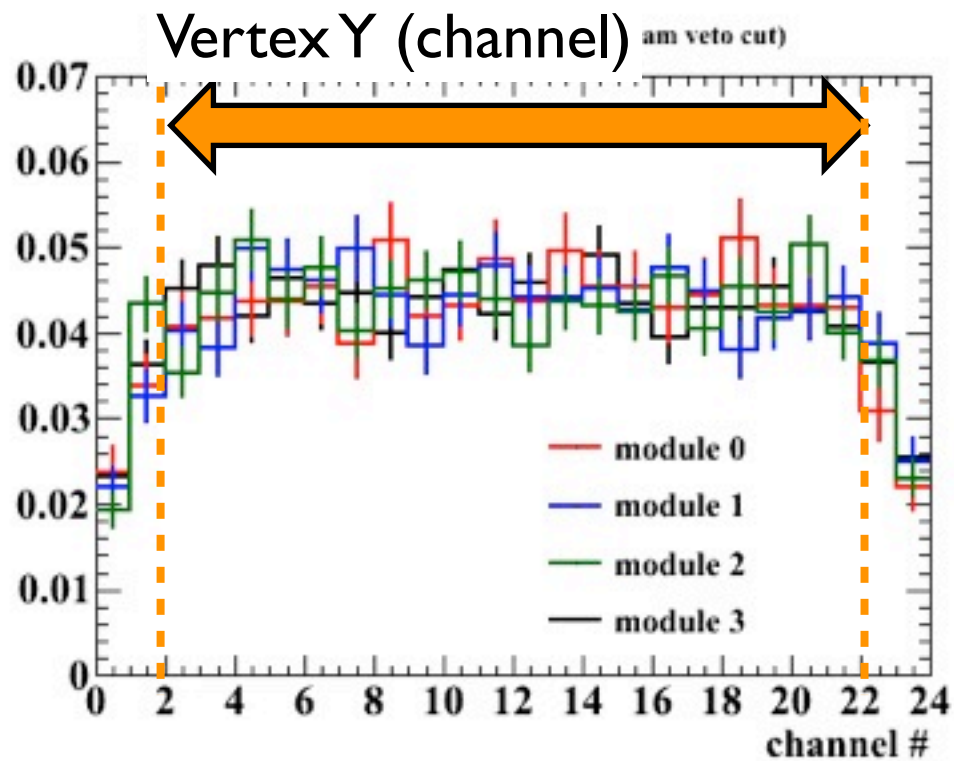




# Normalized Fiducial volume cut









# Next todo

- Compare Data vs MC plot after neutrino event selection
- Normalize by pot.