



TOF-Clustering

Note:

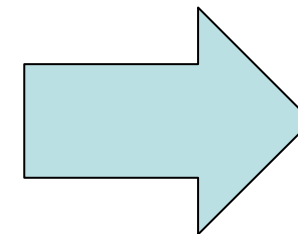
- v43 production
- Clustering code less then 48 hours old

➡ Debugging in progress !



Current version:

- geometrical clustering
 - based on slat distribution
- → multiplicity
- PID
 - leading Z analysis
- → Charge of Cluster
- Check
 - Assumption: Total charge = 6 $\leftrightarrow$ Projectile fragments
 - VTX mult vs ToF mult



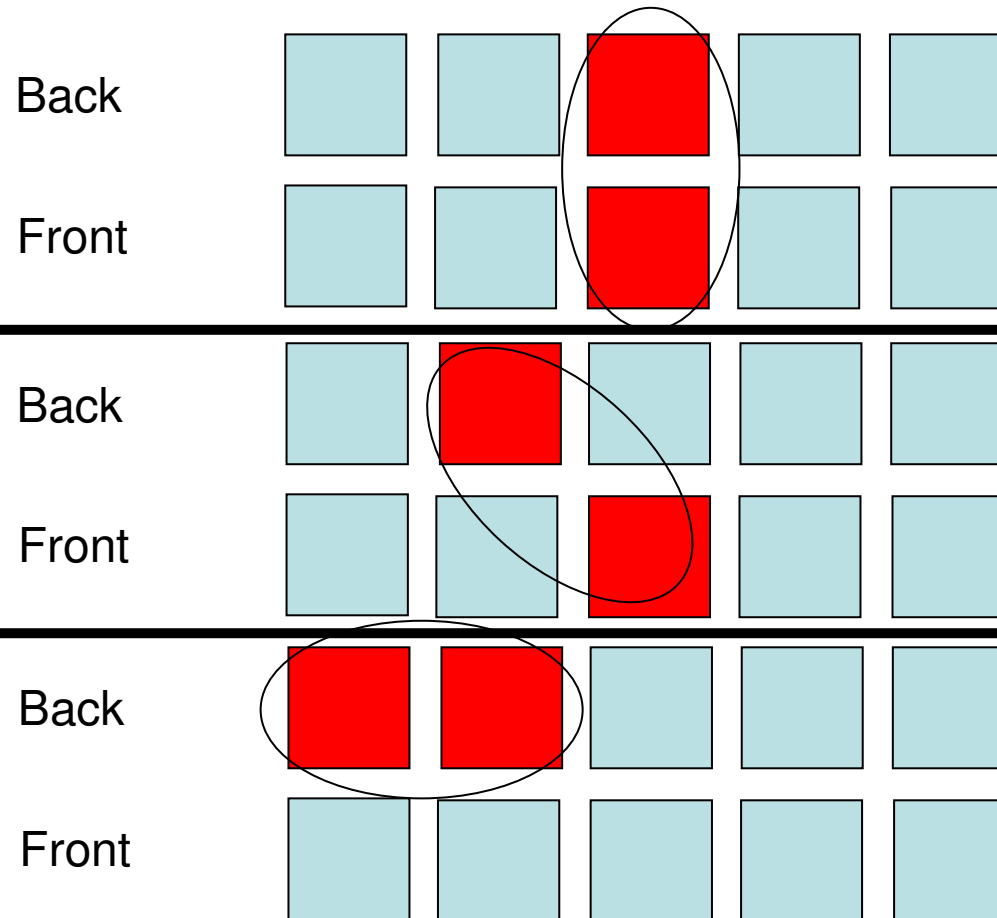
standalone

Geometrical clustering

Charge independent and tof!



simple cases:



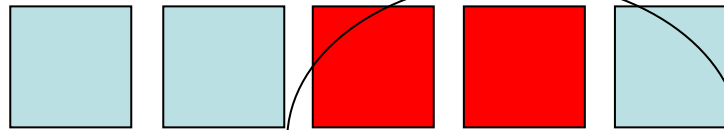
Geometrical clustering

Charge and tof independent!

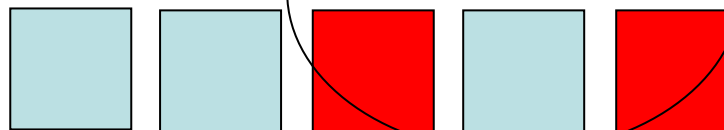


problematic cases: <- overestimation of low multiplicity

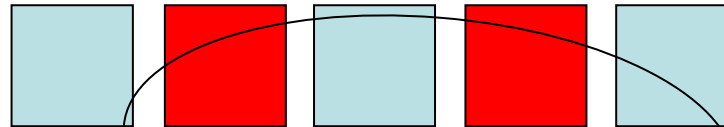
Back



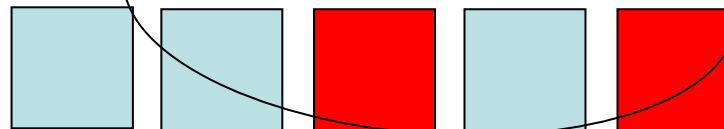
Front



Back



Front

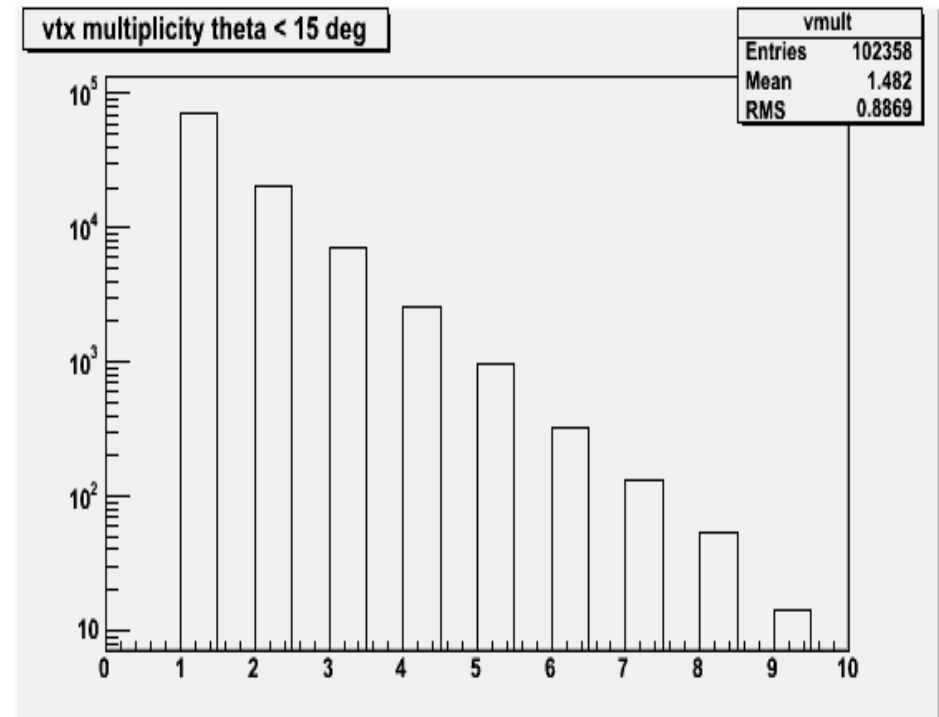
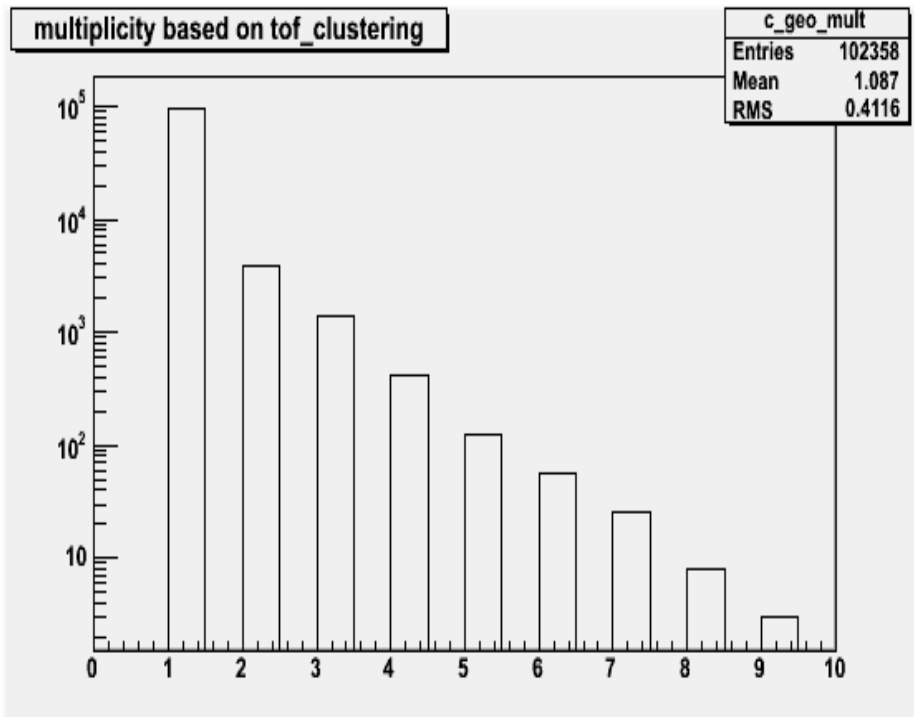


Back



Front



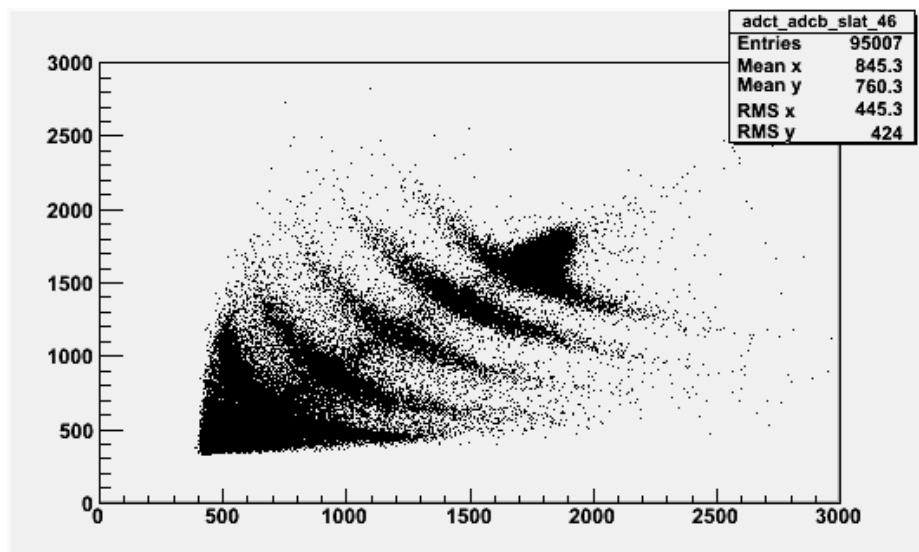


improvements

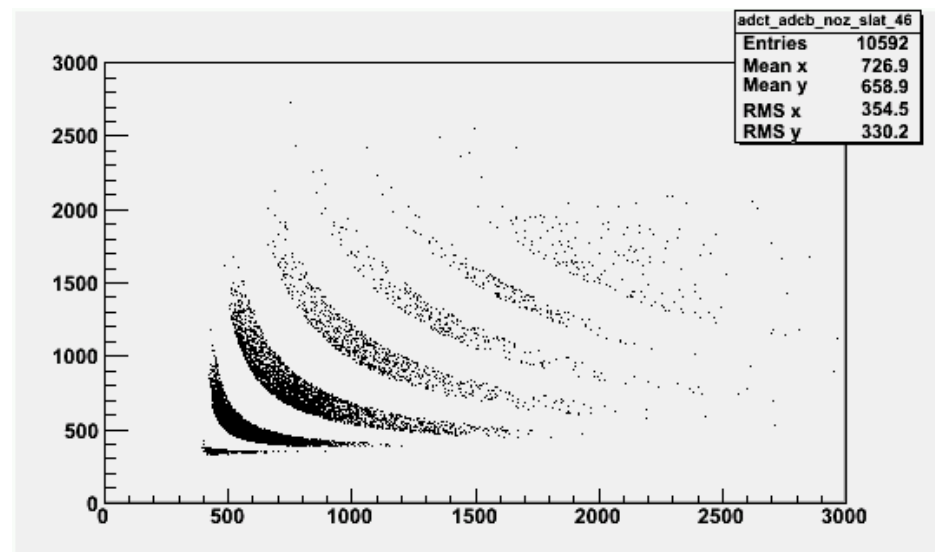
- use PID for
 - standalone clustering
 - rating of cluster goodness
 - subdivide clusters with high hit number per cluster
- Problems
 - Code not fully debugged
 - $Z=-100$ hits

improvements

All hits



Z=-100 hits





ToDo:

- PID
 - Bugfixing <- hopefully quite fast
- use TOF
 - standalone clustering <- first test version near completion
 - verify clusters