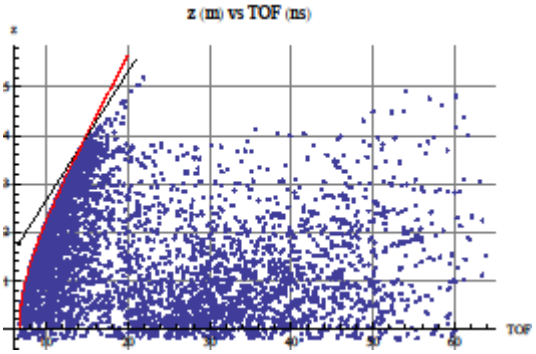
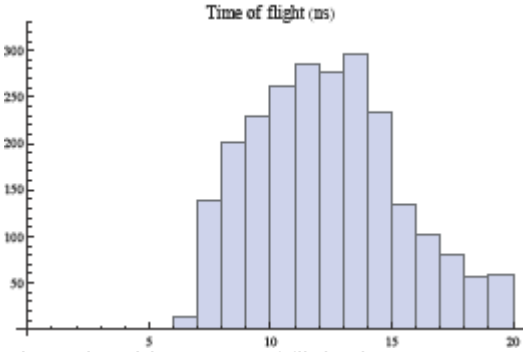
These plots are from 100 events of UrQMD Au+Au at injection energy (9.8 GeV total energy, not kinetic energy) with impact parameter = 10 fm. The objective is to see whether it is reasonable to require a certain TOF multiplicity to be part of the trigger. This is for the single-beam Au projectile on fixed Au target. All flight times are nanoseconds and all z values in the TOF are in meters.

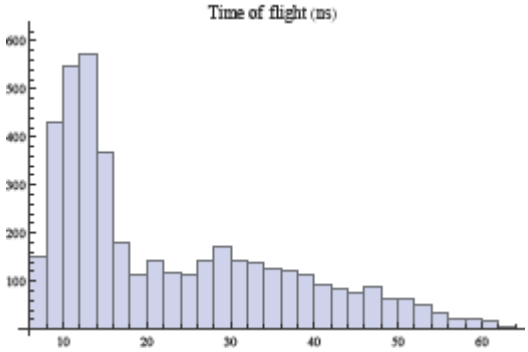
Events from UrQMD in the range of momentum polar angles between pz/p= -0.0872 and pz/p= +0.883 were accepted here. This is a rough approximation to the range of angles covered by the TOF system when the fixed target is at z=~-2.0 meters, meaning that target is off-center in the upstream direction. Account is not taken here of the variation of TOF efficiency with z.

The average number of hits in the TOF is 43, as can be seen in these plots.

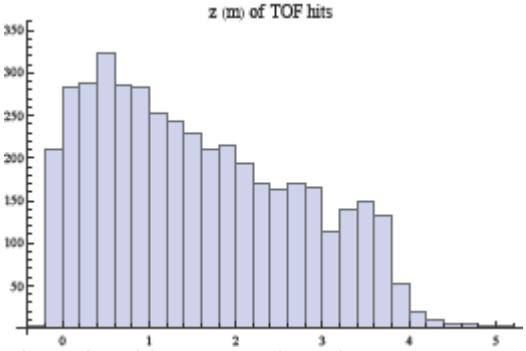


Above is z (m) vs flight time (ns). The largest flight time agrees with the plot posted earlier. As before, the red curve is for massless particles traversing the chord, not the arc of the portion of projected circle.

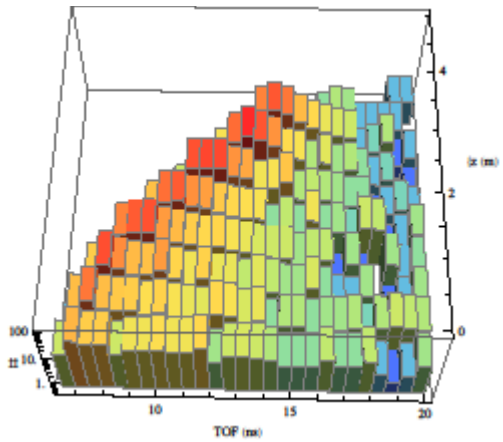




Above is a histogram of flight times.



Above is a histogram of z values.



Above is 3D histogram of flight time (horizontal axis) and z values.