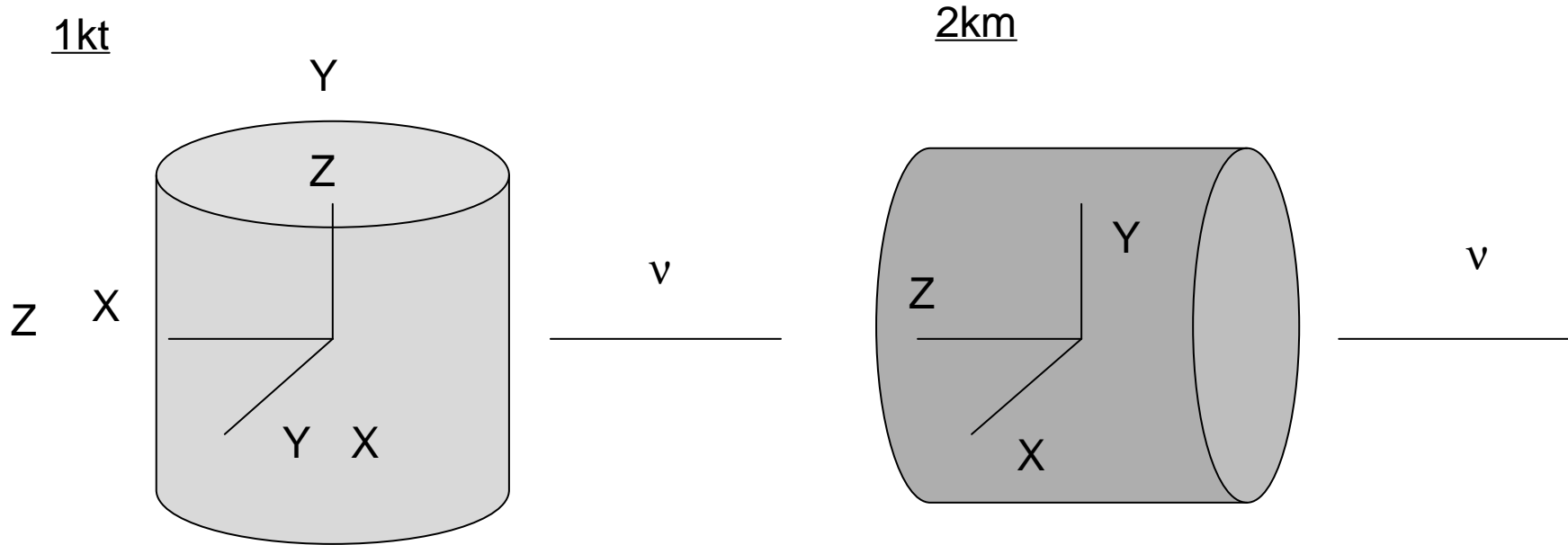


Development of MC for 2km detector

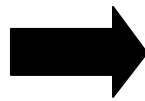
ICRR M.Miura

Basic Idea: Use 1kt detector simulator



Red: K2K beam coordinate

Black: Tank coordinate



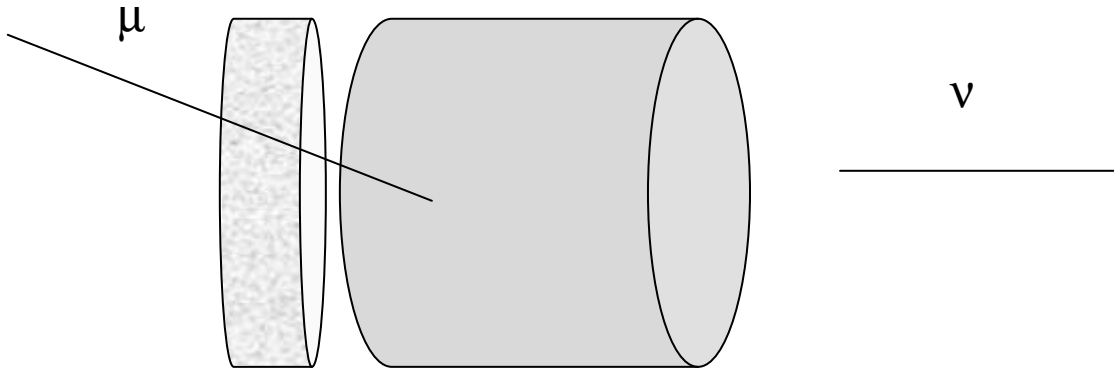
Center
X: -141cm
Y: -62cm

1) Tank coordinate and beam coordinate are identical.

2) v beam comes from $-Z$ and goes to $+Z$ direction.

3) Beam center is shifted according to previous Kaneyuki-san's talk.

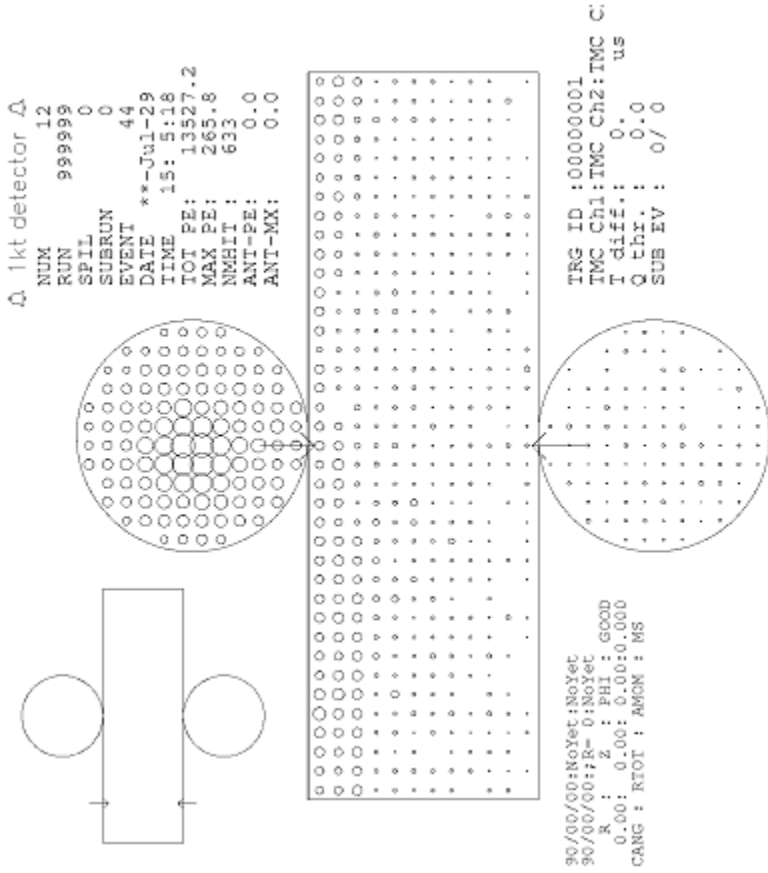
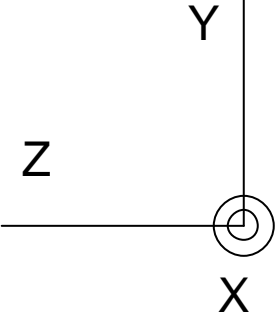
In addition



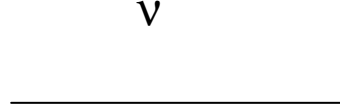
Keep exit particle information for additional detector behind Water Cherenkov detector.

(Position, momentum, particle code, time, parent particle.....)

Typical Event

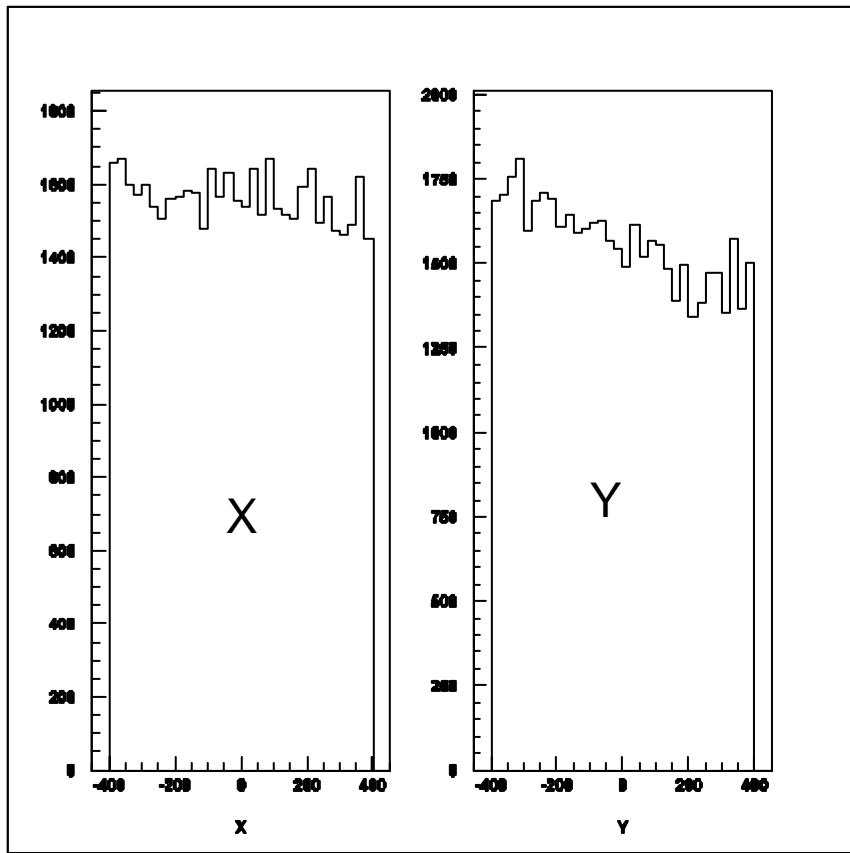


Comnt:

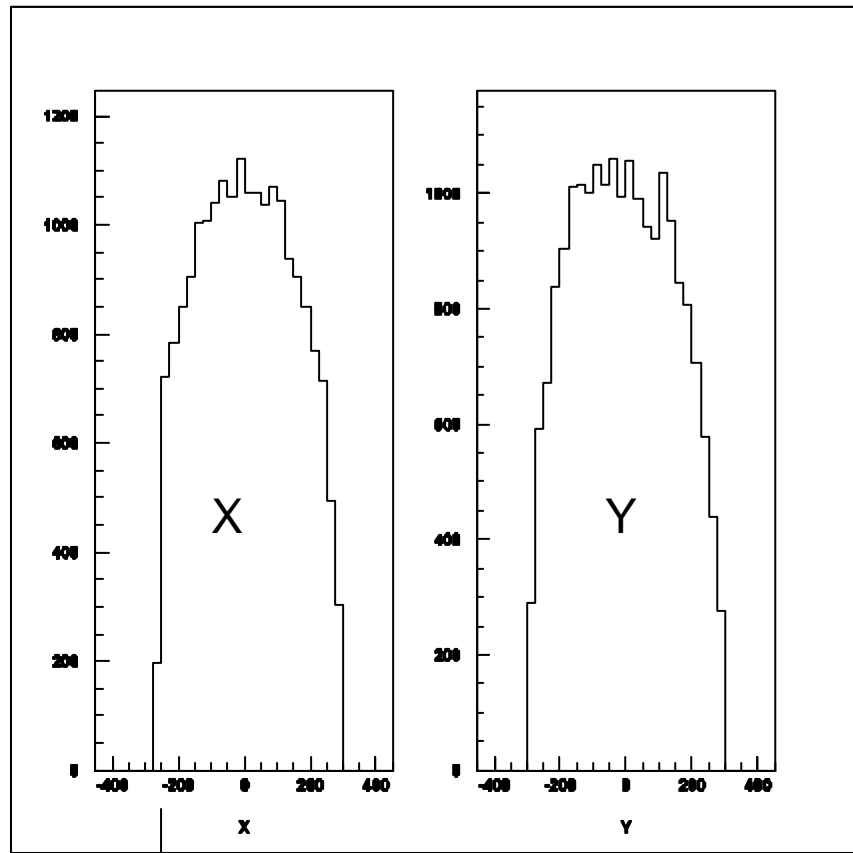


VTX distribution

Original vector(w/o any cut)



After shift and R <300cm cut



Generated within R <400 cm ?

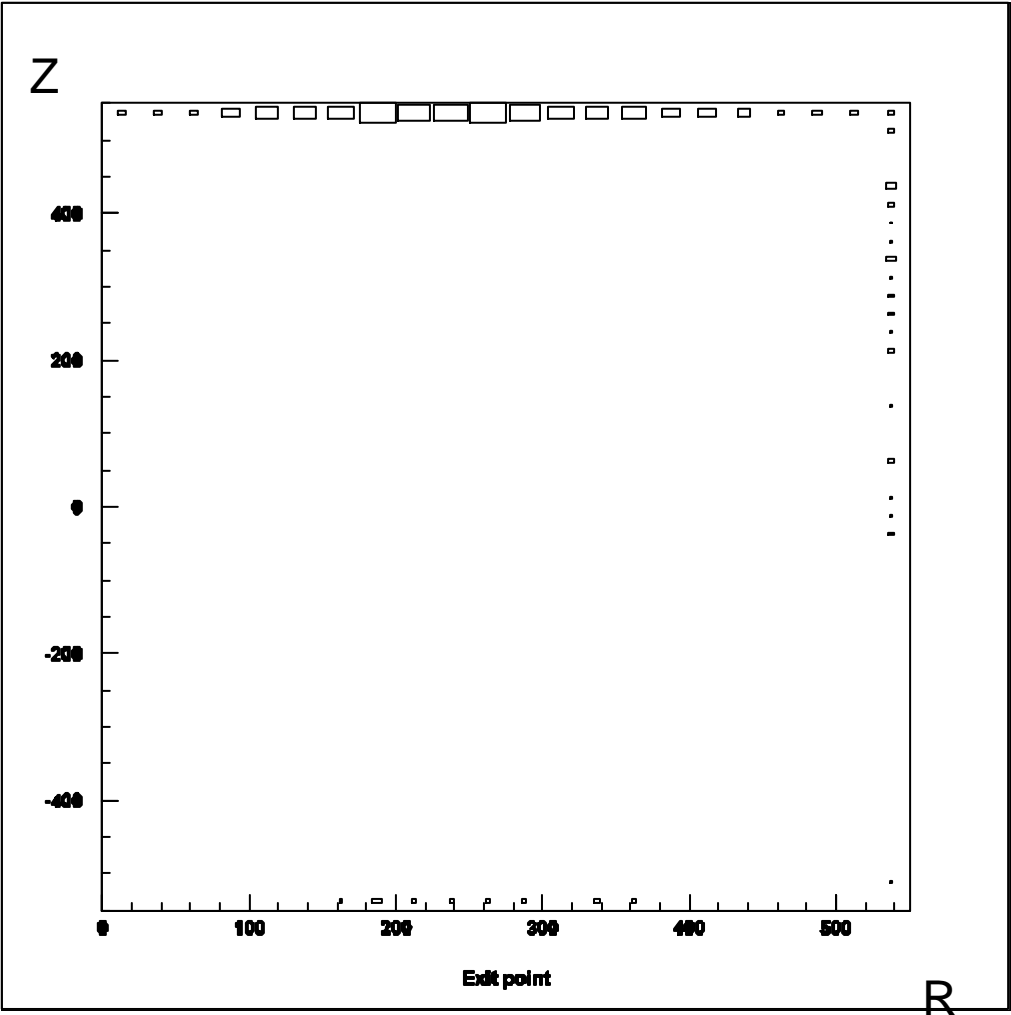
Not exact -300 cm

$-400 - (-141) = -259$ cm

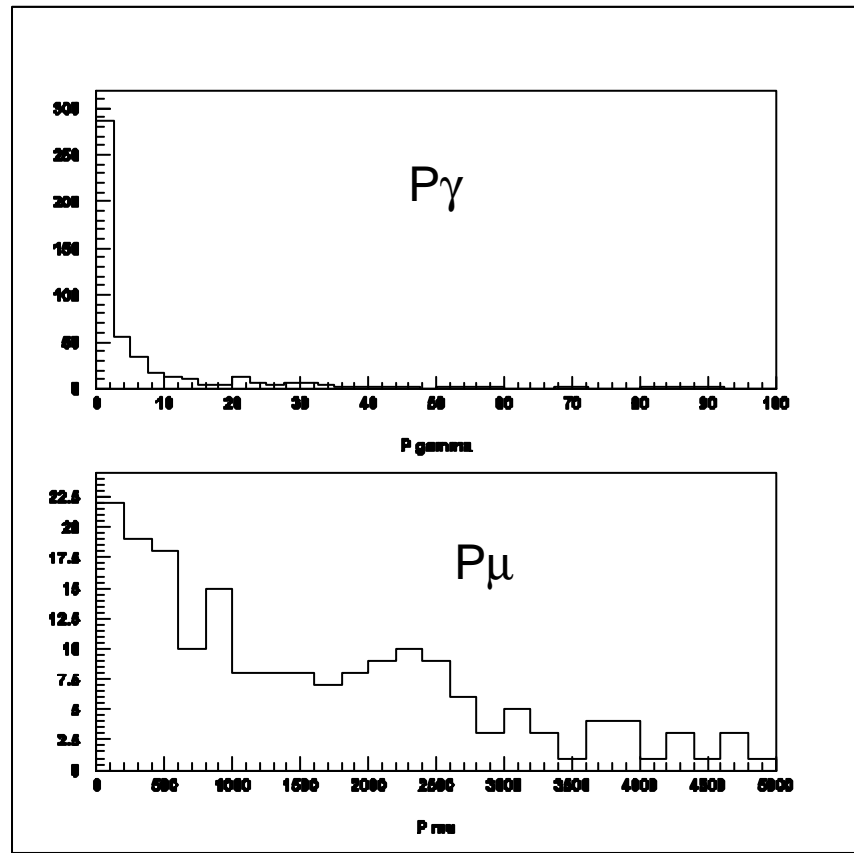
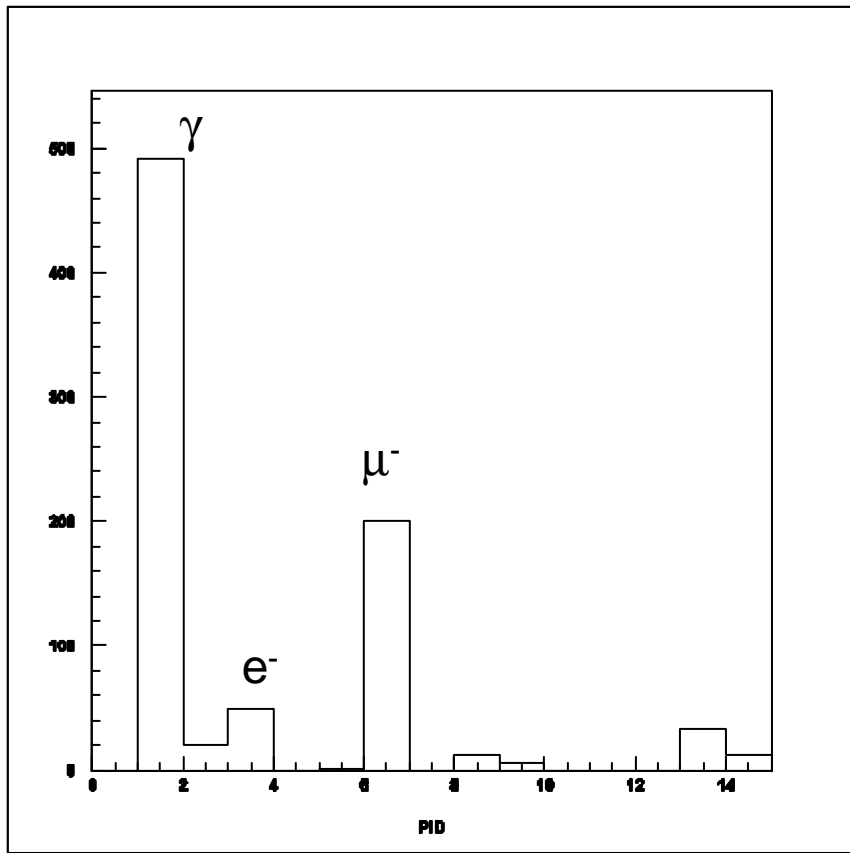


Shifted
correctly!

Exit Point



Exit Particles



Plan

- Tools are almost ready.
- Now we have many CPU (Linux) at Kashiwa and are trying to arrange environment for mass-production.