



Figure 5.2: Reconstructed π^0 z vertex distribution overlay of data and halo neutron MC. Reconstructing π^0 from 2 cluster sample with vertex fixed on the beam axis is how we do the $K_L^0 \rightarrow \pi^0 \nu \bar{\nu}$ reconstruction. Only veto cuts and photon quality cuts were applied. K_L^0 contribution was checked to be negligible.