T2KSK @ SB Meeting

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02/25/2013
T2K - SK MC

Joshua updated the MC data on NNgroup cluster, and he sent me a ROOT macros to start playing His macro draws Reconstructed electron energy on MC.

I plot every “Cut Variable” to play finding optimal values. (Joshua’s suggestion)
selecting electrons
nring==1
nhitac<16 (no OD)
wall>200cm
evclass=1 (FV)

pi0mass<105
Evis>100
nue_energy<1250
Number decay-e=0
Optimal values for “cuts”

- Selecting electrons
  - nring==1
  - nhitac<16 (no OD)
  - wall>200cm
  - evclass=1 (FV)

Mass < 105 MeV/C^2

Vis Energy > 100 MeV
Optimal values for “cuts”

Reco Energy < 1250 MeV

Number decay-e = 0
Number of decay-e

selecting electrons
nring==1
nhitac<16 (no OD)
wall>200cm
evclass=1 (FV)
pi0mass<105
Evis>100
nue_energy<1250

Number decay-e= 0

selecting electrons
nring==1
nhitac<16 (no OD)
wall>200cm
evclass=1 (FV)
pi0mass<105
Evis>100
nue_energy<1250

Number decay-e<2
Reconstructed Energy

Using standards cuts + number of decay-e < 2.
The purity is almost same, but efficiency could be increased ~10%.