

Analysis

440kT x 5yrs: **2,2 Mt.yrs (+)**

| | $\theta_{13} = 1^\circ$ | $\theta_{13} = 3^\circ$ | $\sin^2 2\theta_{13} = 0.05$ | |
|-------------------------------------|--|------------------------------------|---|---|
| $\nu_\mu \rightarrow \nu_e$ (Sig) | 33 ($\delta = \pi/2$) | 330 ($\delta = \pi/2$) | 2200 ($\delta = \pi/2$) | 3670 ($\delta = 0^\circ$) |
| $\nu_\mu \rightarrow \nu_e$ (Bkg) | 1500 | | | |
| | $\nu_e \rightarrow \nu_e$ CC | π^0 from NC | $\nu_\mu \rightarrow \nu_\mu$ CC (μ missId) | $\bar{\nu}_e \rightarrow \bar{\nu}_e$ CC |
| Frac. of Bkg | 90% | 6% | 3% | 1% |
| Reduction Factor | 0.707 | $6.5 \cdot 10^{-4}$ | $5.4 \cdot 10^{-4}$ | 0.677 |
| $\nu_\mu \rightarrow \nu_\mu$ (Sig) | 64950 ($\delta = \pi/2$) | | 64414 ($\delta = 0^\circ$) | |
| $\nu_\mu \rightarrow \nu_\mu$ (Bkg) | 3 ($4.3 \cdot 10^{-4}$ $\bar{\nu}_\mu \rightarrow \bar{\nu}_\mu$ CC) | | | |

$$\sin^2 2\theta_{12} = 0.82, \theta_{23} = \pi/4, \Delta m^2_{21} = 8.1 \cdot 10^{-5} eV^2, \Delta m^2_{31} = 2.2 \cdot 10^{-3} eV^2$$

Reduction factor and efficiencies taken from SK simulation (D. Casper) and a tight cut for e/ μ misId.