Efficiencies and contaminations from SK atm. ν MC

- $\sim$ 60k νs generated throughout the SK volume
- # QE CC νs generated in 2m Fiducial volume
- # one ring leptons fit in 2m Fiducial volume, $E_{vis} > 100 MeV$, e/μ-like sigle ring, zero (e) / zero+ (mu) decay electrons.

Results:

- ν_e QE CC $\rightarrow$ 1ring electrons = 83%
- ν_μ QE CC $\rightarrow$ 1ring muons = 58%
  - HS will contain more μs than SK
- ν_μ QE CC $\rightarrow$ 1ring electrons = 2.1%

HS event rate plots multiply by ϵ * fiducial loss (assuming SK like OD, supper structure and 2m fid cut)

- $\epsilon_e = 83\% \times 54\% = 45\%$
- $\epsilon_\mu = 58\% \times 54\% = 31\%$