

# Analysis: GLoBES + M. Mezzetto's parameterization file

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)	<b>33</b> ( $\delta = \pi/2$ )	<b>330</b> ( $\delta = \pi/2$ )	<b>2200</b> ( $\delta = \pi/2$ )	<b>3670</b> ( $\delta = 0^\circ$ )
$\nu_\mu \rightarrow \nu_e$ (Bkg)	<b>1500</b>			
	$\nu_e \rightarrow \nu_e$ CC	$\pi^0$ from NC	$\nu_\mu \rightarrow \nu_\mu$ CC ( $\mu$ 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)	<b>64950</b> ( $\delta = \pi/2$ )		<b>64414</b> ( $\delta = 0^\circ$ )	
$\nu_\mu \rightarrow \nu_\mu$ (Bkg)	<b>3</b> ( $4.310^{-5}$ $\bar{\nu}_\mu \rightarrow \bar{\nu}_\mu$ 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/ $\mu$  misId. (cf. hep-ph/0105297)

440kT x 8yrs: **3,5 Mt.yrs (-)**

	$\theta_{13} = 1^\circ$	$\theta_{13} = 3^\circ$	$\sin^2 2\theta_{13} = 0.05$	
$\bar{\nu}_\mu \rightarrow \bar{\nu}_e$ (Sig)	<b>110</b> ( $\delta = \pi/2$ )	<b>390</b> ( $\delta = \pi/2$ )	<b>1300</b> ( $\delta = \pi/2$ )	<b>1140</b> ( $\delta = 0^\circ$ )
$\bar{\nu}_\mu \rightarrow \bar{\nu}_e$ (Bkg)	<b>490</b>			
	$\bar{\nu}_e \rightarrow \bar{\nu}_e$ CC	$\nu_e \rightarrow \nu_e$ CC	$\pi^0$ from NC	$\bar{\nu}_\mu \rightarrow \bar{\nu}_\mu$ CC ( $\mu$ missId)
Frac. of Bkg	45%	35%	18%	2%
Reduction Factor	0.677	0.707	$2.5 \cdot 10^{-3}$	$5.4 \cdot 10^{-4}$
$\bar{\nu}_\mu \rightarrow \bar{\nu}_\mu$ (Sig)	<b>19760</b> ( $\delta = \pi/2$ )		<b>19590</b> ( $\delta = 0^\circ$ )	
$\bar{\nu}_\mu \rightarrow \bar{\nu}_\mu$ (Bkg)	<b>1</b> ( $4.310^{-5}$ $\bar{\nu}_\mu \rightarrow \bar{\nu}_\mu$ CC)			

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