

T2K ν_e appearance result file (2012 paper results)

`t2k_2012paper_ptheta_contour.root` contains following ROOT objects (TGraph):

- `g_dl_best_nh` :
Best fit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming normal hierarchy (NH).
- `g_dl_68_ll_nh` :
68 % C.L. lower limit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming NH.
- `g_dl_68_ul_nh` :
68 % C.L. upper limit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming NH.
- `g_dl_90_ll_nh` :
90 % C.L. lower limit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming NH.
- `g_dl_90_ul_nh` :
90 % C.L. upper limit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming NH.
- `g_dl_best_nh` :
Best fit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming inverted hierarchy (IH).
- `g_dl_68_ll_nh` :
68 % C.L. lower limit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming IH.
- `g_dl_68_ul_nh` :
68 % C.L. upper limit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming IH.
- `g_dl_90_ll_nh` :
90 % C.L. lower limit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming IH.
- `g_dl_90_ul_nh` :
90 % C.L. upper limit point of $\sin^2 2\theta_{13}$ for each value of δ_{CP} assuming IH.

Figure 1 shows the best fit value and the allowed region 68 % (green) and 90 % C.L. (blue) for $\sin^2 2\theta_{13}$ for each value of δ_{CP} using this file.

`t2k_2012paper_ptheta_dl.root` contains the negative log likelihood distribution as a function of $\sin^2 2\theta_{13}$ for each value of δ_{CP} from -3.14 to 3.14 with 21 steps.

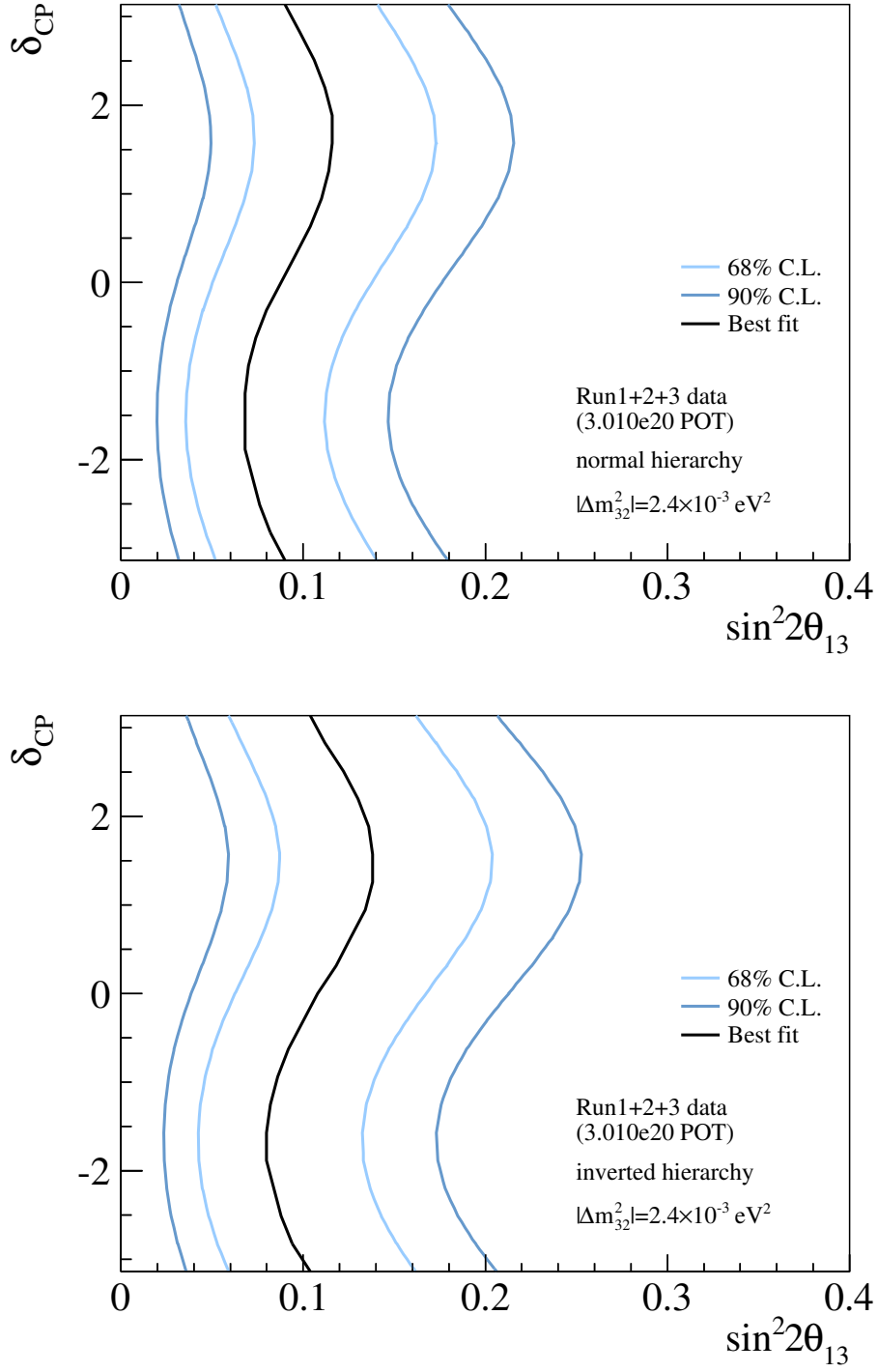


Figure 1: Allowed region of 68 % (green) and 90 % C.L. (blue) for $\sin^2 2\theta_{13}$ for each value of δ_{CP} . The black solid line is the best fit value for each value of δ_{CP} . Top (bottom) plot: normal (inverted) hierarchy is assumed.