

T2K Run1-7 ν_μ and T2K Run 5-7 $\bar{\nu}_\mu$ Data Release for disappearance analysis.

For this analysis our sample contains 1 muon-like ring events. The current disappearance analysis fit both beam modes.

The `T2K_NuMuDissap-Run1_Run7_2016.root` contains the T2K ν_μ and $\bar{\nu}_\mu$ disappearance results. Following ROOT objects are written:

T2K ν_μ normal hierarchy

- **NuMu_bestfit_2d_normal**
`TMarker` containing best-fit point in $\sin^2\theta_{23} - \Delta m_{32}^2$ plane.
- **NuMu_chi2_2d_normal**
`TH2D` containing $\chi^2 = (-2\Delta\ln L)$ distribution in $\sin^2\theta_{23} - \Delta m_{32}^2$ plane.
- **NuMu_cont_2d_68_normal**
`TGraph` containing 68% C.L. contour in $\sin^2\theta_{23} - \Delta m_{32}^2$ plane.
- **NuMu_cont_2d_90_normal**
`TGraph` containing 90% C.L. contour in $\sin^2\theta_{23} - \Delta m_{32}^2$ plane.

T2K ν_μ inverted hierarchy

- **NuMu_bestfit_2d_normal**
`TMarker` containing best-fit point in $\sin^2\theta_{23} - \Delta m_{32}^2$ plane.
- **NuMu_chi2_2d_normal**
`TH2D` containing $\chi^2 = (-2\Delta\ln L)$ distribution in $\sin^2\theta_{23} - \Delta m_{32}^2$ plane.
- **NuMu_cont_2d_68_normal**
`TGraph` containing 68% C.L. contour in $\sin^2\theta_{23} - \Delta m_{32}^2$ plane.
- **NuMu_cont_2d_90_normal**
`TGraph` containing 90% C.L. contour in $\sin^2\theta_{23} - \Delta m_{32}^2$ plane.

T2K $\bar{\nu}_\mu$ normal hierarchy

- **NuMubar_bestfit_2d_normal**

TMarker containing best-fit point in $\sin^2 \bar{\theta}_{23} - \Delta \bar{m}_{32}^2$ plane.

- **NuMubar_chi2_2d_normal**

TH2D containing $\chi^2 = (-2\Delta \ln L)$ distribution in $\sin^2 \bar{\theta}_{23} - \Delta \bar{m}_{32}^2$ plane.

- **NuMubar_cont_2d_68_normal**

TGraph containing 68% C.L. contour in $\sin^2 \bar{\theta}_{23} - \Delta \bar{m}_{32}^2$ plane.

- **NuMubar_cont_2d_90_normal**

TGraph containing 90% C.L. contour in $\sin^2 \bar{\theta}_{23} - \Delta \bar{m}_{32}^2$ plane.

T2K $\bar{\nu}_\mu$ inverted hierarchy

- **NuMubar_bestfit_2d_normal**

TMarker containing best-fit point in $\sin^2 \bar{\theta}_{23} - \Delta \bar{m}_{32}^2$ plane.

- **NuMubar_chi2_2d_normal**

TH2D containing $\chi^2 = (-2\Delta \ln L)$ distribution in $\sin^2 \bar{\theta}_{23} - \Delta \bar{m}_{32}^2$ plane.

- **NuMubar_cont_2d_68_normal**

TGraph containing 68% C.L. contour in $\sin^2 \bar{\theta}_{23} - \Delta \bar{m}_{32}^2$ plane.

- **NuMubar_cont_2d_90_normal**

TGraph containing 90% C.L. contour in $\sin^2 \bar{\theta}_{23} - \Delta \bar{m}_{32}^2$ plane.