Data release for T2K 2014 ν_e CC inclusive cross-section measurement

The T2K Collaboration

June 27, 2014

This data release contains 1 ROOT file, 7 text files and this README document. The original files can be downloaded from `http://t2k-experiment.org/results/t2k-nue-ccinc-2014`.

`t2k_nue_ccinc_2014.root` has the following structure:

```
TDirectoryFile: mom
 TH1D: nue_xsec_mom
 TH2D: cov_tot_mom
 TH2D: cov_stat_mom
 TH2D: cov_flux_mom
TDirectoryFile: ang
 TH1D: nue_xsec_ang
 TH2D: cov_tot_ang
 TH2D: cov_stat_ang
 TH2D: cov_flux_ang
TDirectoryFile: q2
 TH1D: nue_xsec_q2
 TH2D: cov_tot_q2
 TH2D: cov_stat_q2
 TH2D: cov_flux_q2
TDirectoryFile: nue_flux
 TH1D: nue_flux
TDirectoryFile: mom_restrict
 TH1D: nue_xsec_mom_restrict
 TH2D: cov_tot_mom_restrict
 TH2D: cov_stat_mom_restrict
 TH2D: cov_flux_mom_restrict
TDirectoryFile: ang_restrict
 TH1D: nue_xsec_ang_restrict
 TH2D: cov_tot_ang_restrict
 TH2D: cov_stat_ang_restrict
 TH2D: cov_flux_ang_restrict
TDirectoryFile: q2_restrict
 TH1D: nue_xsec_q2_restrict
 TH2D: cov_tot_q2_restrict
 TH2D: cov_stat_q2_restrict
 TH2D: cov_flux_q2_restrict
```

- The histogram `nue_flux` is the ND280 ν_e flux for this analysis, as a function of E_ν. The total data p.o.t. analysed is 5.90×10^{20}.
- The directories `mom` (`ang`, `q2`) contain the ν_e CC inclusive differential cross-section results as a function of p_e ($\cos(\theta_e)$, Q^2), when unfolding into the full electron kinematic phase-space.
- The directories `mom_restrict` (`ang_restrict`, `q2_restrict`) contain the ν_e CC inclusive differential cross-section results as a function of p_e ($\cos(\theta_e)$, Q^2), when only considering electrons with $p_e > 550$ MeV and $\cos(\theta_e) > 0.72$.
- The histograms `nue_xsec_*` contain the differential cross-sections and total error in each bin.
- The histograms `cov_tot_*` contain the total covariance matrices.
- The histograms `cov_stat_*` contain the covariance matrices from the data statistics only.
- The histograms `cov_flux_*` contain the covariance matrices from the flux uncertainty only.

Each text file corresponds to a single directory in the ROOT file, and contains the same information in CSV format.