

MINERvA_CC1pip_XSec_1Dth_nu_settings

- name : MINERvA_CClpip_XSec_IDth_nu
 input : GENIE:@GENIE_DIR/gntp.R-2_6_3.0fficialDefault.Default.MINERvA_fhc_numu.CH.2500000.1.prepared
- type : DEFAULT description :
- I--> MINERvA_CC1pip_XSec_1Dth_nu sample
 I--> Target: CH

- I--> Flux: MINERvA Forward Horn Current nue + nuebar
 I--> Signal: Any event with 1 electron, any nucleons, and no other FS particles

- xtitle : θ_{π} (degrees) ytitle : θ_{π} (degrees) ytitle : $d\sigma/d\theta_{\pi}$ (cm²/degrees/nucleon) default_types : FIX_FREE_SHAPE/DIAG,FULL/NORM/MASK
- allowed_types : FIX/FULL

- enm_max: 10
 title: MINERvA_CCIpip_XSec_IDth_nu
 data: /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/n
- covar : /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/
- $\bullet \ original name : MINERvA_CC1pip_XSec_1Dth_nu \\$
- χ²: 104.614 • NDOF: 13
- χ²/NDOF : 8.04719

MINERvA_CC1pip_XSec_1Dth_nu_settings

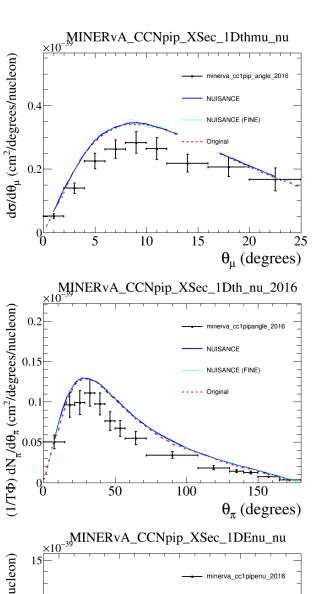
- name : MINERVA_CC1pip_XSec_1Dth_nu
 input : GENIE:@GENIE_DIR/gntp.R-2_6_3.0fficialDefault.Default.MINERvA_fhc_numu.CH.2500000.1.prepared
- type : DEFAULT
- description
- |--> MINERvA_CC1pip_XSec_1Dth_nu sample |--> Target: CH
- |--> Flux: MINERvA Forward Horn Current nue + nuebar
- I--> Signal: Any event with 1 electron, any nucleons, and no other FS particles
- xtitle : θ_{π} (degrees)
- $\label{eq:title} \begin{tabular}{ll} \bullet \mbox{ ytitle : } d\sigma \! / d\theta_x \mbox{ (cm}^2 \! / degrees/nucleon) \\ \hline \bullet \mbox{ default_types : FIX,FREE,SHAPE/DIAG,FULL/NORM/MASK} \\ \end{tabular}$
- allowed_types : FIX/FULL enu_min : 1.5

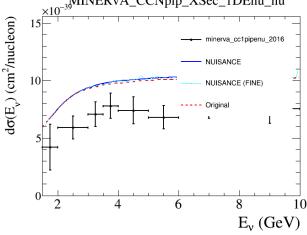
- enu_max : 10 title : MINERvA_CC1pip_XSec_1Dth_nu
- $\bullet \ data: \ / data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/normalized for the control of the control of$
- covar : /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/
- $\bullet \ original name : MINERvA_CC1pip_XSec_1Dth_nu \\$
- χ²: 104.614 • NDOF: 13
- γ²/NDOF : 8.04719

MINERvA_CC1pip_XSec_1DTpi_nu_settings

- name : MINERvA_CC1pip_XSec_1DTpi_nu
 input : GENIE:@GENIE_DIR/gntp.R-2_6_3.0fficialDefault.Default.MINERvA_fhc_numu.CH.2500000.1.prepared
- type : DEFAULT description
- I--> MINERvA_CC1pip_XSec_1DTpi_nu sample.
- I--> Target: CH
- |--> Flux: MINERvA Forward Horn Current nue + nuebar
- 1--> Signal: Any event with 1 electron, any nucleons, and no other FS particles
- xtitle : T_{π} (MeV)
- $\label{eq:potential} \begin{array}{l} \bullet \mbox{ ytitle : } d\sigma / dT_{\pi} \mbox{ (cm}^2 / MeV / nucleon) \\ \bullet \mbox{ default_types : FIX,FREE,SHAPE/DIAG,FULL/NORM/MASK} \end{array}$
- allowed_types : FIX/FULL enu_min : 1.5

- enu_max : 10 title : MINERvA_CC1pip_XSec_1DTpi_nu
- $\bullet \ data: \ / data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validations/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validation-061117/builds/nulled/lines/minerva-validat$ covar : /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/
- $\bullet \ original name : MINERvA_CC1pip_XSec_1DTpi_nu \\$
- χ²: 22.0665
- NDOF: 7
- χ²/NDOF : 3.15236





MINERvA_CCNpip_XSec_1Dthmu_nu_settings

- name: MINERvA_CCNpip_XSec_1Dthmu_nu
- input : GENIE:@GENIE_DIR/gntp.R-2_6_3.OfficialDefault.Default.MINERvA_fhc_numu.CH.2500000.1.prepared
- type : DEFAULT description :
- |--> MINERvA_CCNpip_XSec_1Dthmu_nu sample |--> Target: CH

- I--> Flux: MINERvA Forward Horn Current nue + nuebar
 I--> Signal: Any event with 1 electron, any nucleons, and no other FS particles

- xtitle : θ_{μ} (degrees) ytitle : $d\sigma/d\theta_{\mu}$ (cm²/degrees/nucleon) default_types : FIX_FREE_SHAPE/DIAG,FULL/NORM/MASK
- allowed_types : FIX/FULL

- enm_max: 10
 title: MINERvA_CCNpip_XSec_IDthmu_nu
 data: /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/n
- covar : /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/
- $\bullet \ original name : MINERvA_CCNpip_XSec_1Dthmu_nu \\$
- χ²: 20.3228
- NDOF: 9
- χ²/NDOF : 2.25809

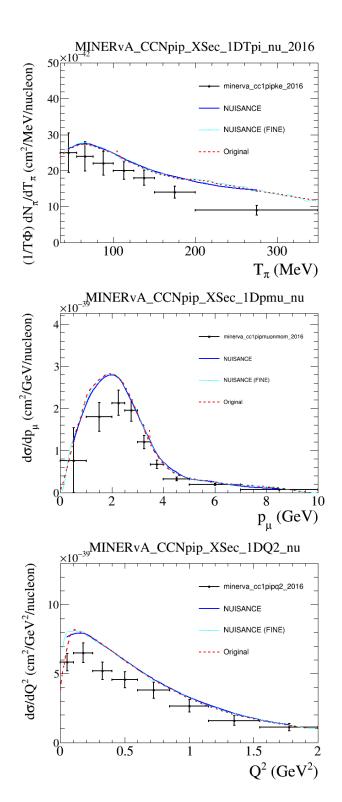
MINERvA_CCNpip_XSec_1Dth_nu_2016_settings

- name : MINERvA_CCNpip_XSec_1Dth_nu_2016
- $\bullet \ input: GENIE: @GENIE_DIR/gntp.R-2_6_3. Official Default. Default. MINERvA_fhc_numu. CH. 2500000. 1. prepared the property of the propert$
- type : DEFAULT
- description
- |--> MINERvA_CCNpip_XSec_1Dth_nu sample.
- |--> Target: CH
- |--> Flux: MINERvA Forward Horn Current nue + nuebar
- 1--> Signal: Any event with 1 electron, any nucleons, and no other FS particles
- xtitle : θ_{π} (degrees)
- ytitle : $(1/T\Phi) dN_{\pi}/d\theta_{\pi} (cm^2/degrees/nucleon)$
- $\bullet \ default_types: FIX,FREE,SHAPE/DIAG,FULL/NORM/MASK$
- allowed_types : FIX/FULL
- enu min: 1.5
- enu_max : 10
- title : MINERvA_CCNpip_XSec_1Dth_nu
- $\bullet \ original name : MINERvA_CCNpip_XSec_1Dth_nu_2016 \\$
- χ^2 : 56.9773
- NDOF : 14
- $\chi^2/NDOF$: 4.06981

MINERvA_CCNpip_XSec_1DEnu_nu_settings

- name : MINERvA_CCNpip_XSec_1DEnu_nu
 input : GENIE:@GENIE_DIR/gntp.R-2_6_3.0fficialDefault.Default.MINERvA_fhc_numu.CH.2500000.1.prepared
- $\bullet \ type : DEFAULT \\$ description
- |--> MINERvA_CCNpip_XSec_1DEnu_nu sample |--> Target: CH
- |--> Flux: MINERvA Forward Horn Current nue + nuebar
- 1--> Signal: Any event with 1 electron, any nucleons, and no other FS particles
- $\bullet \ \textbf{xtitle} : E_v \ (GeV)$
- $\begin{array}{l} \bullet \ \ \textbf{ytitle} : d\sigma(E_{_{V}}) \ (cm^{2}/nucleon) \\ \bullet \ \ \textbf{default_types} : FIX,FREE,SHAPE/DIAG,FULL/NORM/MASK \end{array}$
- allowed_types : FIX/FULL enu_min : 1.5

- enu_max : 10 title : MINERvA_CCNpip_XSec_1DEnu_nu
- $\bullet \ data: / data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/nulled/null$ covar : /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/
- originalname : MINERvA_CCNpip_XSec_1DEnu_nu
- NDOF: 8
- χ²/NDOF : 2.38766



MINERvA_CCNpip_XSec_1DTpi_nu_2016_settings

- name : MINERvA_CCNpip_XSec_1DTpi_nu_2016
- $\bullet \ input: GENIE: @GENIE_DIR/gntp.R-2_6_3. Official Default. Default. MINERvA_fhc_numu. CH. 2500000.1. prepared the property of the property$
- type : DEFAULT
- description
- |--> MINERvA_CCNpip_XSec_1DTpi_nu sample
- I--> Target: CH
- |--> Flux: MINERvA Forward Horn Current nue + nuebar
- I--> Signal: Any event with I electron, any nucleons, and no other FS particles
- xtitle : T_{π} (MeV)
- ytitle : $(1/T\Phi) dN_{\pi}/dT_{\pi} (cm^2/MeV/nucleon)$
- default_types : FIX,FREE,SHAPE/DIAG,FULL/NORM/MASK
- allowed_types : FIX/FULL
- enu_min: 1.5
- enu_max : 10
- $\bullet \ title : MINERvA_CCNpip_XSec_1DTpi_nu \\$
- $\bullet \ original name : MINERvA_CCNpip_XSec_1DTpi_nu_2016 \\$
- χ^2 : 25.081 • NDOF : 7
- $\chi^2/NDOF : 3.583$

MINERvA_CCNpip_XSec_1Dpmu_nu_settings

- name : MINERvA_CCNpip_XSec_1Dpmu_nu
 input : GENIE:@GENIE_DIR/gntp.R-2_6_3.0fficialDefault.Default.MINERvA_fhc_numu.CH.2500000.1.prepared
- type : DEFAULT
- description :
- |--> MINERvA_CCNpip_XSec_1Dpmu_nu sample |--> Target: CH
- |--> Flux: MINERvA Forward Horn Current nue + nuebar
- |--> Signal: Any event with 1 electron, any nucleons, and no other FS particles
 | xtitle : P_µ (GeV) |
 | ytitle : d\(d\) d\(p_{\pmu} \) (cm^2/GeV/nucleon) |
 | default_types : FIX_FREE_SHAPE/DIAG,FULL/NORM/MASK

- allowed_types : FIX/FULL enu_min : 1.5

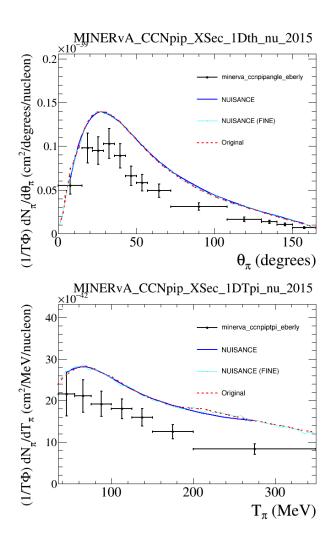
- enu_max: 10
 title: MINERvA_CCNpip_XSec_IDpmu_nu
 data: /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/n
 data: /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/n
- covar : /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/
- originalname : MINERvA_CCNpip_XSec_1Dpmu_nu
- χ²: 35.7957
- NDOF: 9 • γ²/NDOF : 3.97731

MINERvA_CCNpip_XSec_1DQ2_nu_settings

- name : MINERvA_CCNpip_XSec_1DQ2_nu
 input : GENIE:@GENIE_DIR/gntp.R-2_6_3.0fficialDefault.Default.MINERvA_fhc_numu.CH.2500000.1.prepared
- type : DEFAULT • description :
- |--> MINERvA_CCNpip_XSec_1DQ2_nu sample |--> Target: CH
- |--> Flux: MINERvA Forward Horn Current nue + nuebar
- 1--> Signal: Any event with 1 electron, any nucleons, and no other FS particles

- xtitle : Q² (GeV²)
 ytitle : do/dQ² (cm²/GeV²/nucleon)
 default_types : FIX,FREE,SHAPE/DIAG,FULL/NORM/MASK
- allowed_types : FIX/FULL enu_min : 1.5

- enu_max : 10 title : MINERvA_CCNpip_XSec_1DQ2_nu
- data : /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/n covar : /data/stowell/NIWG/NUISANCEMC/minerva_tuning/sample_validations/minerva-validation-061117/builds/
- $\bullet \ original name : MINERvA_CCNpip_XSec_1DQ2_nu \\$
- NDOF: 8
- χ²/NDOF : 1.94227



MINERvA_CCNpip_XSec_1Dth_nu_2015_settings

- name : MINERvA_CCNpip_XSec_1Dth_nu_2015
- $\bullet \ input: GENIE: @GENIE_DIR/gntp.R-2_6_3. Official Default. Default. MINERvA_fhc_numu. CH. 2500000. 1. prepared the property of the propert$
- type : DEFAULT
- description
- |--> MINERvA_CCNpip_XSec_1Dth_nu sample.
- |--> Target: CH |--> Flux: MINERvA Forward Horn Current nue + nuebar
- I--> Signal: Any event with 1 electron, any nucleons, and no other FS particles
- xtitle : θ_{π} (degrees)
- ytitle : $(1/T\Phi) dN_{\pi}/d\theta_{\pi} (cm^2/degrees/nucleon)$
- default_types : FTX.FREE.SHAPE/DIAG.FULL/NORM/MASK
 allowed_types : FTX/FULL
 enu_min : 1.5

- enu_max : 10
- $\bullet \ title: \\ MINERvA_CCNpip_XSec_1Dth_nu \\$
- originalname : MINERvA_CCNpip_XSec_1Dth_nu_2015 • χ^2 : 80.6474 • NDOF : 13
- χ²/NDOF : 6.20364

MINERvA_CCNpip_XSec_1DTpi_nu_2015_settings

- name : MINERvA_CCNpip_XSec_1DTpi_nu_2015
- $\bullet \ input: GENIE: @GENIE_DIR/gntp.R-2_6_3. Of ficial Default. Default. MINERvA_fhc_numu. CH. 2500000. 1. prepared the property of the proper$
- type : DEFAULT
- description
- |--> MINERvA_CCNpip_XSec_1DTpi_nu sample.
- |--> Target: CH |--> Flux: MINERvA Forward Horn Current nue + nuebar
- I--> Signal: Any event with 1 electron, any nucleons, and no other FS particles
- xtitle : T_{π} (MeV)
- ytitle : $(1/T\Phi) dN_{\pi}/dT_{\pi} (cm^2/MeV/nucleon)$
- $\bullet \ default_types: FIX,FREE,SHAPE/DIAG,FULL/NORM/MASK$
- $\bullet \ allowed_types: FIX/FULL \\$
- enu_min: 1.5
- enu_max : 10
- title : MINERvA_CCNpip_XSec_1DTpi_nu
- $\bullet \ original name : MINERvA_CCNpip_XSec_1DTpi_nu_2015 \\$
- χ² : 35.4956 NDOF : 7
- χ²/NDOF : 5.07079