

NuTools - Bug #22927

Atmospheric neutrino energy distribution for high energy range looks wrong

07/11/2019 06:39 PM - Gianluca Petrillo

Status:	New	Start date:	07/11/2019
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:		Spent time:	0.00 hour
Description			
<p>I have tried to use Kamioka high energy flux files, which cover from 10 GeV to 10 TeV, to generate some neutrinos between 10 and 100 GeV. The configuration is attached. The resulting neutrino distribution for 50 events is also attached. The events are clustered in two intervals, 12.5 to 16 and 40 to 50 GeV. It may be not a coincidence that two of the bins are 12.589 to 15.849 and 39.811 to 50.119 GeV.</p> <p>The ROOT command used for producing (sort-of-)that plot is:</p> <pre>Events->Draw ("simb::MCTruths_generator__GenieGen.obj.fMCNeutrino.fNu.E () >>HNuE (900, 10.0, 100.0) ")</pre>			
Tested with:			
<ul style="list-style-type: none">dunetpc v07_06_01 (nutools v2_24_04, genie v2_12_10c)dunetpc v08_24_00 (nutools v3_00_02, nugen v1_00_01, genie v2_12_10d)			

History

#1 - 07/11/2019 06:48 PM - Gianluca Petrillo

- Description updated

#2 - 07/11/2019 07:37 PM - Gianluca Petrillo

- Description updated

#3 - 07/11/2019 07:40 PM - Gianluca Petrillo

- File prodgenie_atmnu_max_dune10kt_kamioka_highE_fixedWindow-20190711-00-v08_24_00.cfg added

Files

prodgenie_atmnu_max_dune10kt_kamioka_highE_fixedWindow-20190711-00-v07_06_01	14.4 KB	07/11/2019	Gianluca Petrillo
NuE.pdf	14.2 KB	07/11/2019	Gianluca Petrillo
NuE.png	14.4 KB	07/11/2019	Gianluca Petrillo
prodgenie_atmnu_max_dune10kt_kamioka_highE_fixedWindow-20190711-00-v08_24_00	14.4 KB	07/11/2019	Gianluca Petrillo