Comparison of Flux Simulations for the mn000z200i Beam: MINOS, Minerva, NOvA
and other topics

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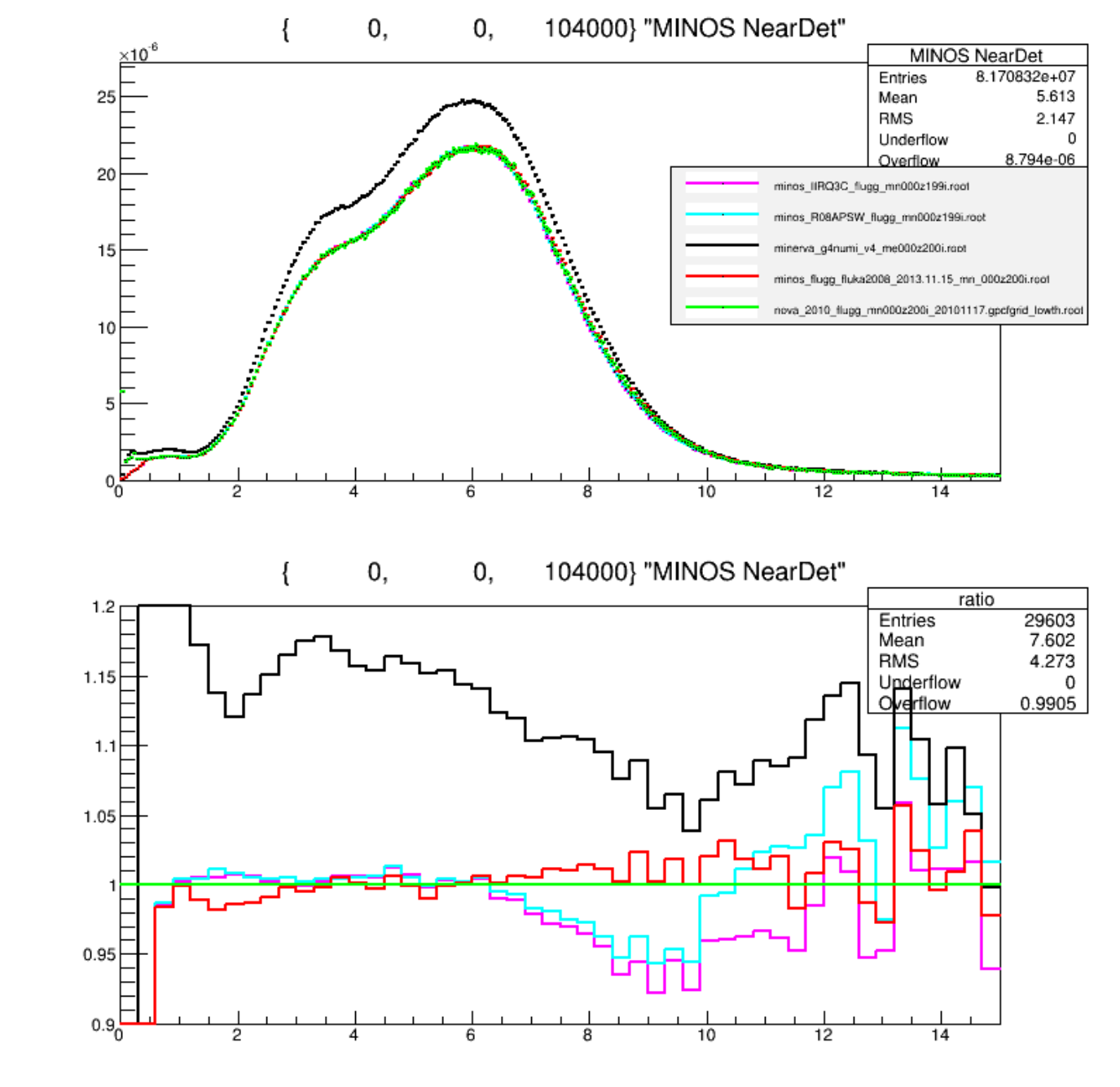
Comparing mn000z200i

- Gathered flux files from individual expts suggested by them as representative of mn000z200i to nusoft/data/flux/shared
- Converted files from flugg “h10” or g4minerva “nudata” format to common “dk2nu” format
  - initially 100 files, but > 8GeV needs more statistics, so 500
- Histogrammed flux weighted for the various locations with fine binning
- Overlaid fluxes, rebinned coarser for ratio
  - nova_2010_flugg…: Luke’s files
  - minos_flugg_fluka2008_2013.11.15: horn2 pos
  - minos IIRQ3C: additional 3 corrections
    - target moved
    - horn current distribution
    - horn current 199kA
  - minos R08APSW: + importance weight for early interaction
  - minerva: Geant4 physics list?

Comparing mn000z200i



Stuff

- Need to work on standardizing file names and directory structures. SAM will want files to be unique
- Argon inside the horns – need to check geometry