MINOS Status – All experimenters Meeting

N. Saoulidou, Fermilab, 10/10/05

Status of Data taking

- Since the problem with horn 2 we did not receive any beam the previous week.

- We did mainly maintenance work and tests in both Near and Far detectors.

Maintenance Work

- Near Detector:
  - 6 bad channels swapped
  - Many channels re-calibrated
  - Performed "special" Light Injection runs to study PMT afterpulsing.
  - One readout processor showed a problem. It was immediately swapped, and the "problematic" one is at Argonne where is being tested.
- Far Detector:
  - Work continued on trying to debug HV MF4 problem. New low voltage power supply will be installed this week.

Status of Data Taking

For June July August and September (nominal configuration) we have 6x10E19 POTs.

JUNE : 1.02E19
JULY : 1.33E19
AUGUST : 1.73E19
SEPTEMBER : 1.90E19

NEAR DETECTOR

- For this period we have ~ 15000000 events anywhere in the detector including rock muons.
- For this period we have ~ 2000000 neutrino interactions in the fiducial region (1m radius 4m in z)

FAR DETECTOR

Performing blind analysis. Currently analyzing data from the open sample

Far Detector Event Selection

Far Detector Events are selected based on :

- Timing (+-50 usec from spill timing signal)
- Topology

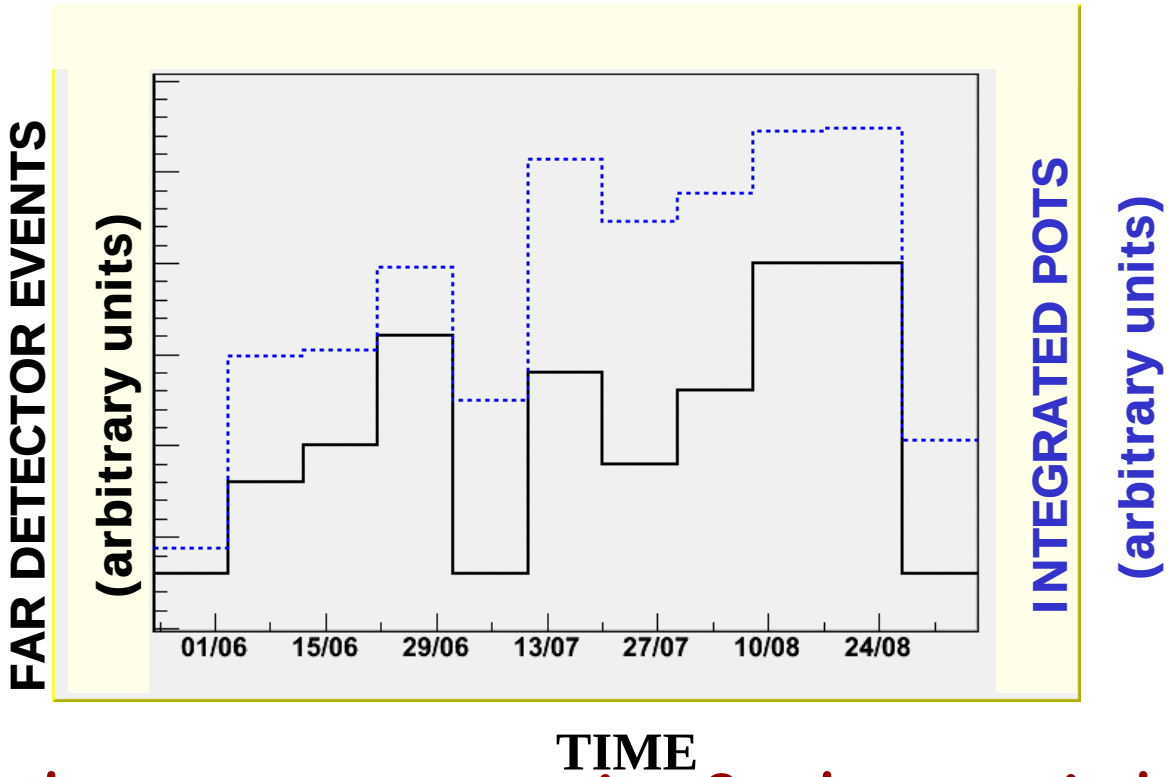
(From ~ 2000000 spills only 1500 had a reconstructed event)

Events are categorized as:

- Neutrino Interactions
- Rock Muons
- Cosmics
- Noise

For neutrino event selection visually scanned events satisfying timing criteria. An automated way (using successive cuts) was also used (that retains ~ 90% of signal and 0.05 % of background) and results were in agreement with Visual Scan Method.

Status of Data Taking



- Far detector events in 8 day periods (black histogram) for June, July August.
- Integrated POT in 8 day periods (blue histograms)
- Number of recorded events follows intensity quite nicely.

Run: 32623, Snarl: 64050, Slice: 1(/1), Event 1(/1)

Reco

#Trks: 1

#Shws: 1

q/p: -0.429 +/- 0.021, p/q: -2.333

TrkRangeEnergy: 2.403 RecoShwEnergy: 1.474

Vtx: -2.55, -0.12, 19.59

Truth

N/A

N/A

N/A

N/A

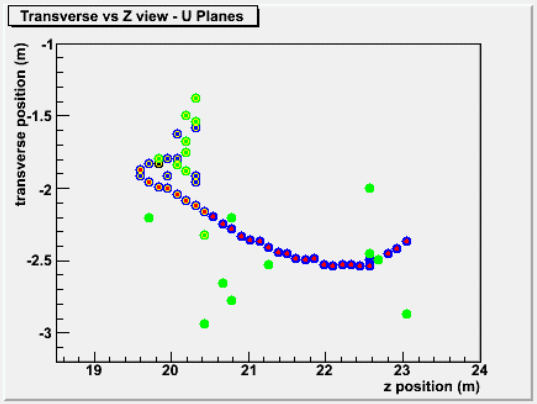
N/A

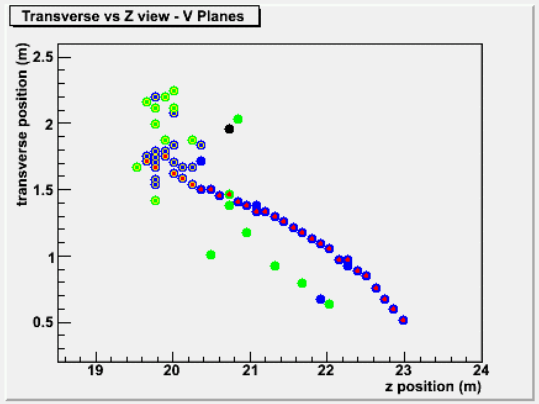
N/A

Ignore	Previous Pass		Next Pass	
NuMu	Step Back		Step Forward	
NuE	Prev Slc	Next Slc	Prev Evt	Next Evt
NC	Prev MC	Next MC	Skip to... / Run,Snarl...	AutoMatch
CC	Refresh / Overlay	Lego? / Clusters?	Print	Quit

Reco
- Summed NPEs < 2.0
- 2.0 < Summed NPEs < 20.0
- Summed NPEs > 20.0
- Reconstructed Track Hit
- Reconstructed Shower Hit (cyan=EM)

Truth
- e, μ, p, n, $\pi^{+/-}$, π^0, $K^{+/-/0}$, γ, τ, final ν
- initial ν





N/A

N/A

N/A

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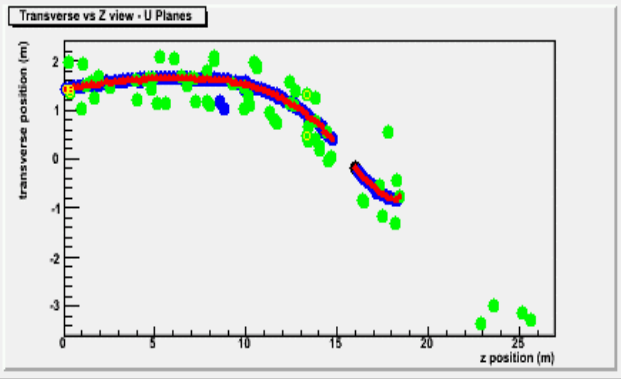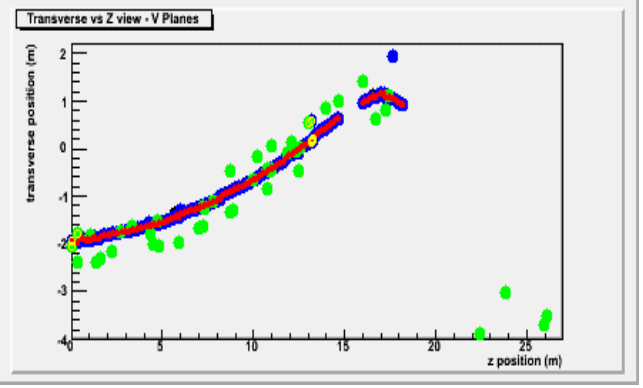
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initial ν