

Point Sources 97-99

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IceCube Collaboration Meeting
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Overview

- Status
- First Results
- Plans



Status

- All Data @ Zeuthen
- Monte Carlo Production in Progress in Brussels
- GRID computing (edg, “VO betest”) : 1st sieglinde run!
- Calibration Studied and Understood
- FG methods investigated quantitatively



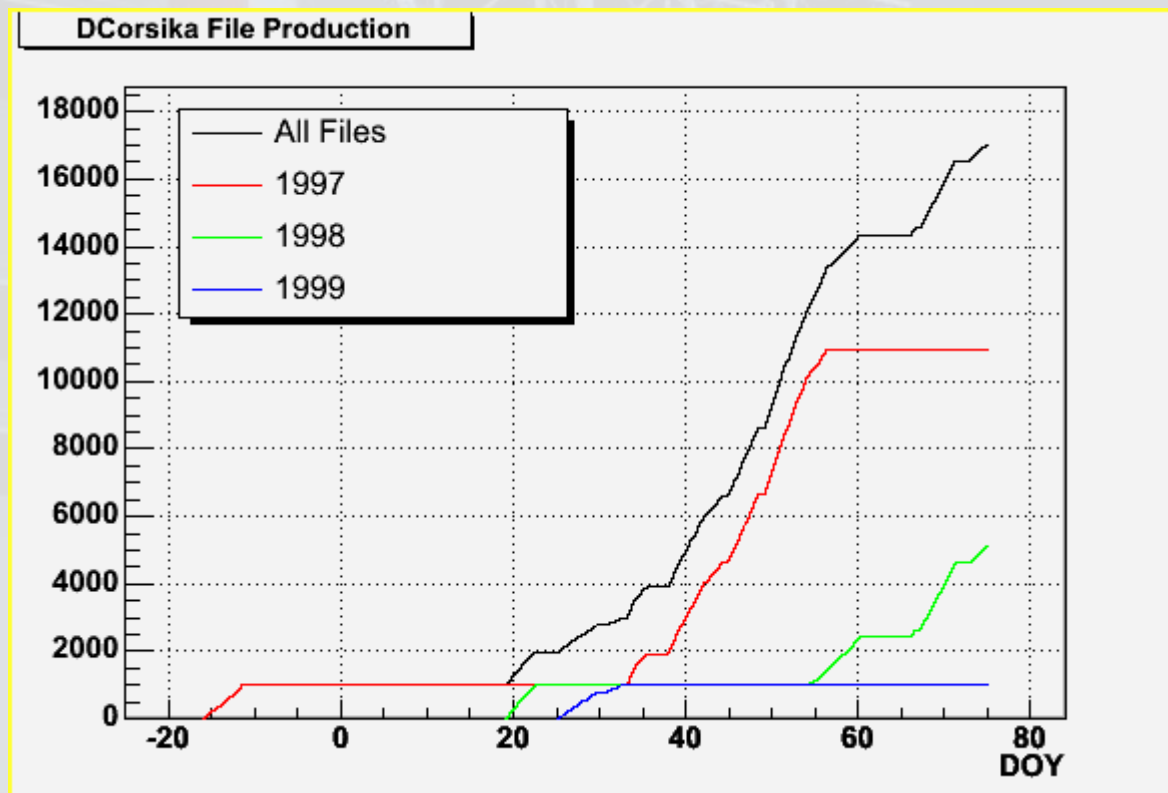
MC Production

Goal:

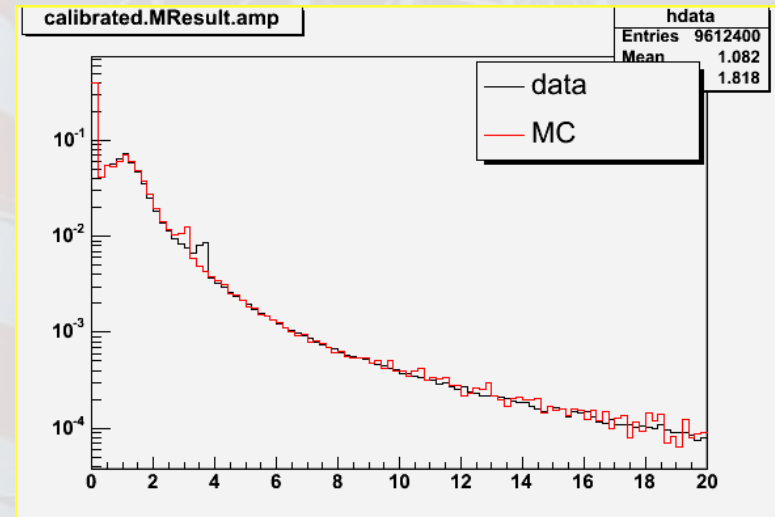
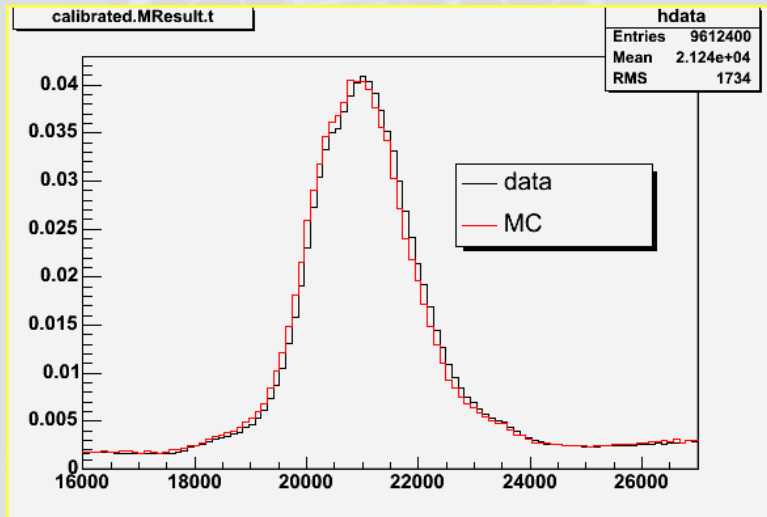
3x10k **dcorsika** files
 1M events/10 x overs.
 $\approx 10d$

2x200 **nusim** files
 100k events
 $10^{(1..8)}$ GeV
 E^{-1} Energy Spectrum

ETA: End of April



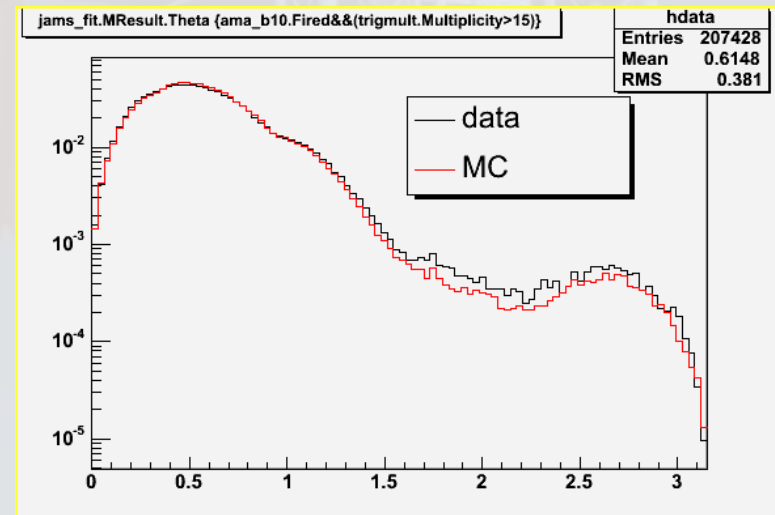
Calibration



Example: 1997 file vs. MC

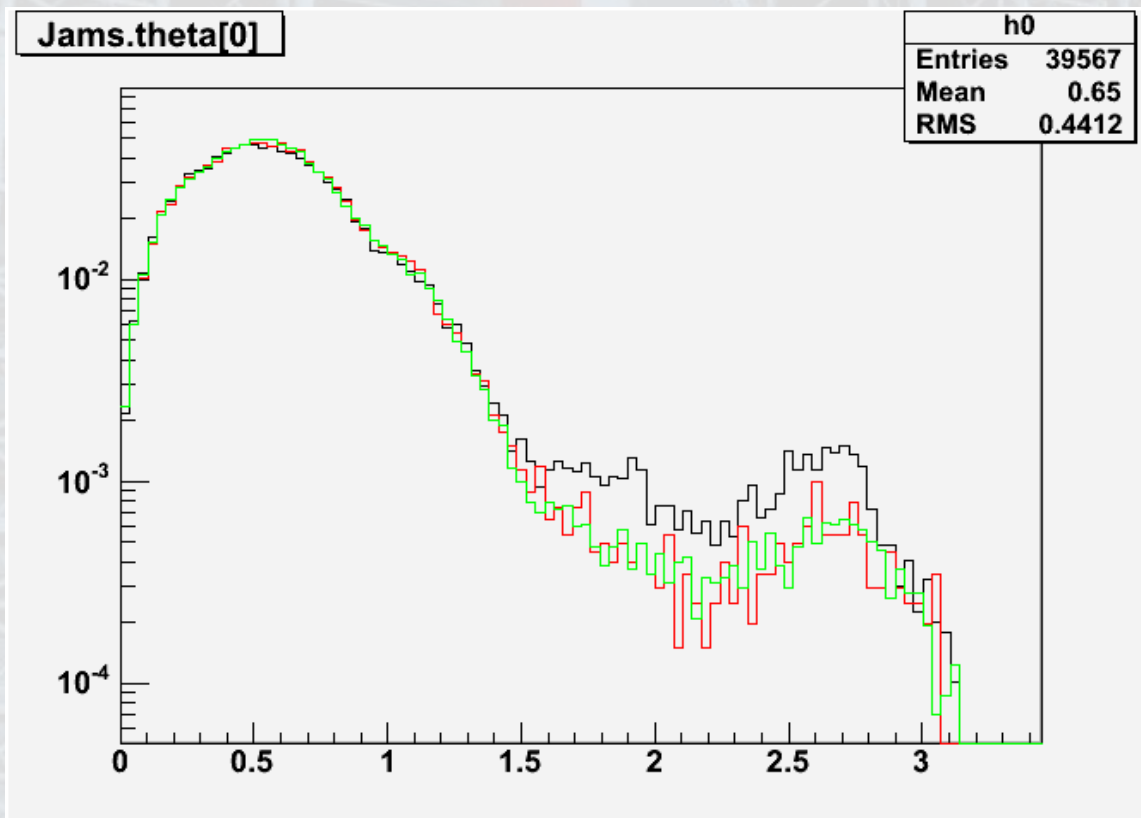
Many more:

http://w3.iihe.ac.be/~berghaus/notes/ana/MC_data.html

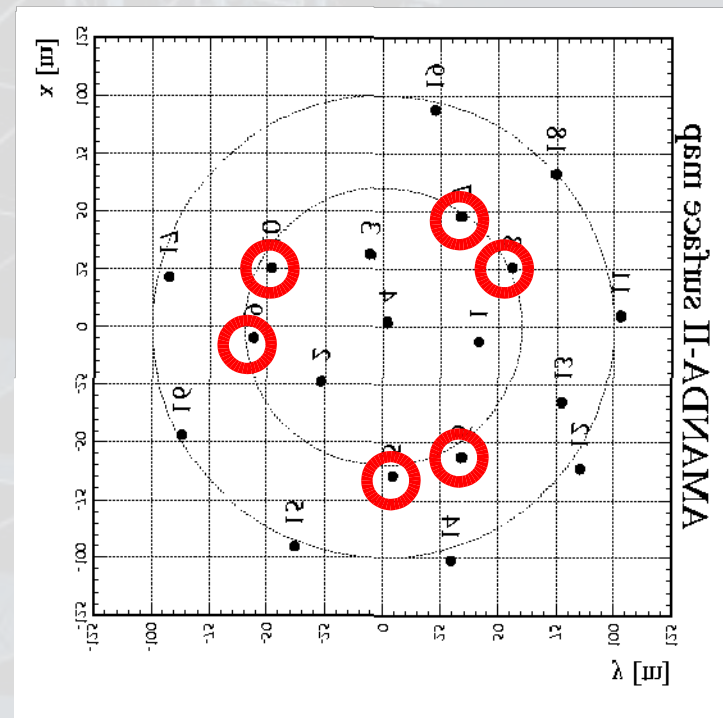
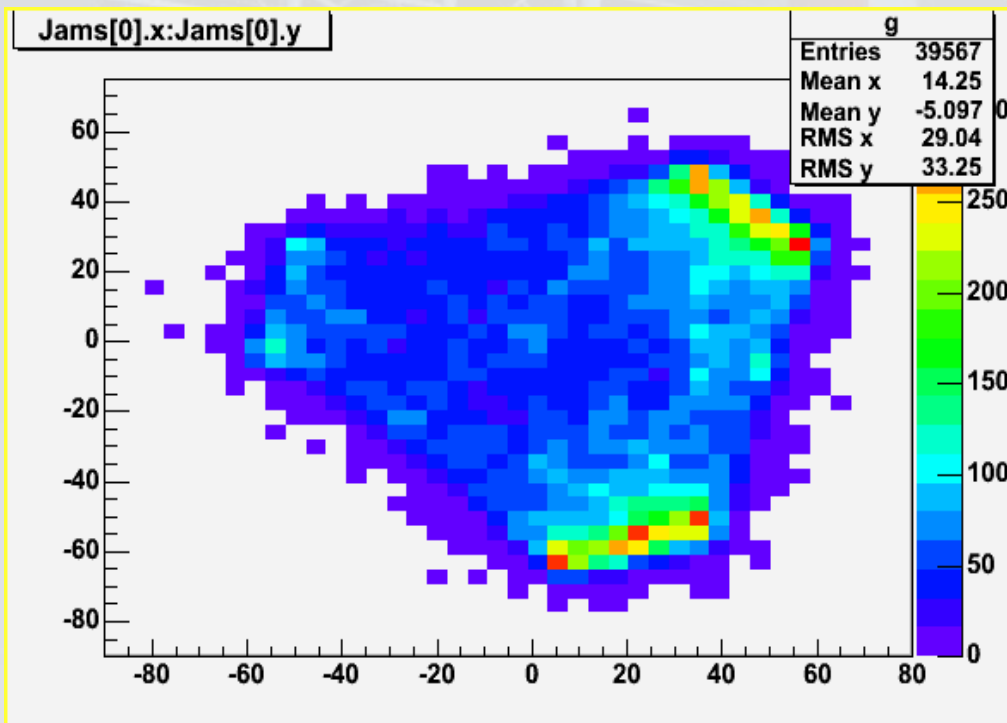


Trouble in '99!

Data
KDM
MAM



JAMS to the Rescue!



JAMS to the Rescue!

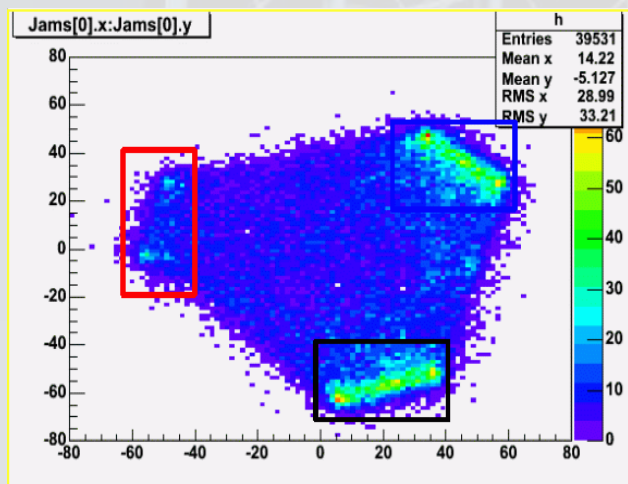
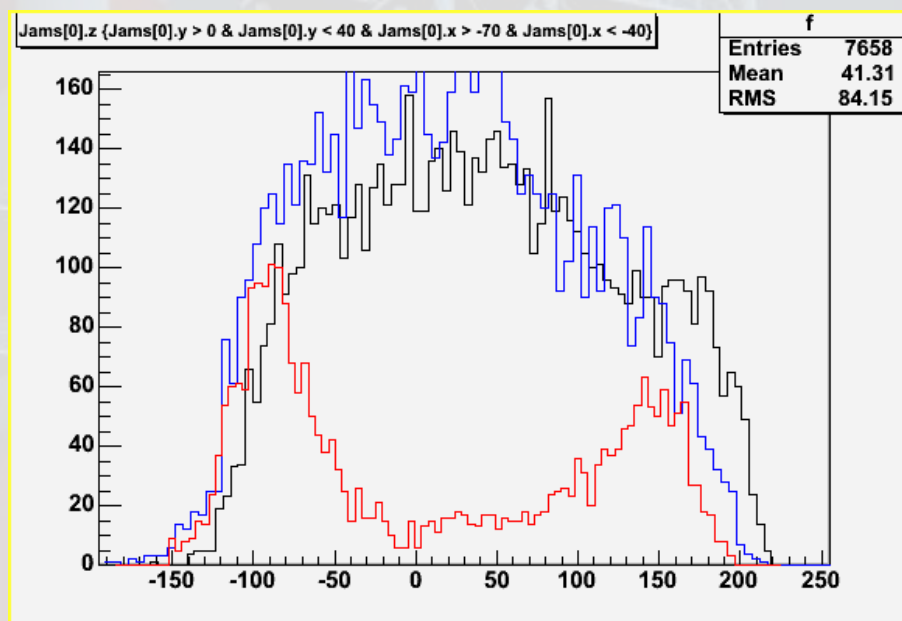
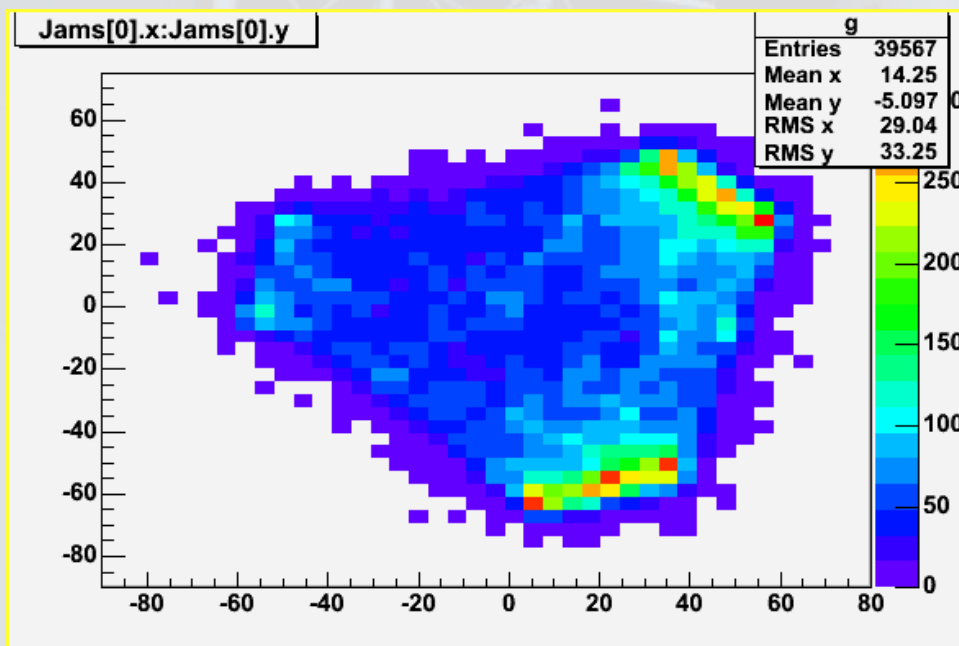


Illustration only!

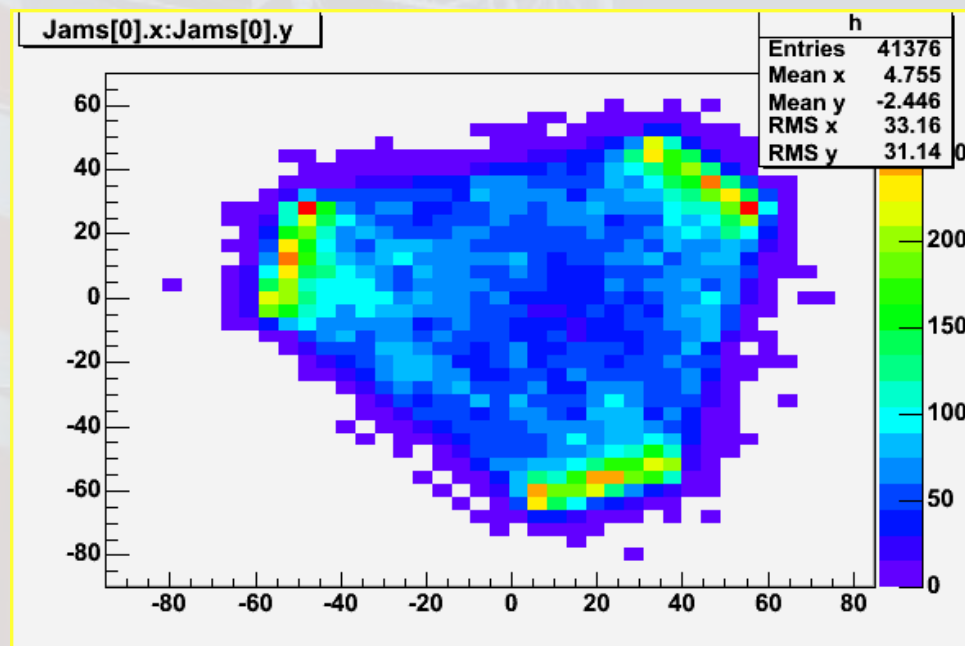


ADC channels switched

Before

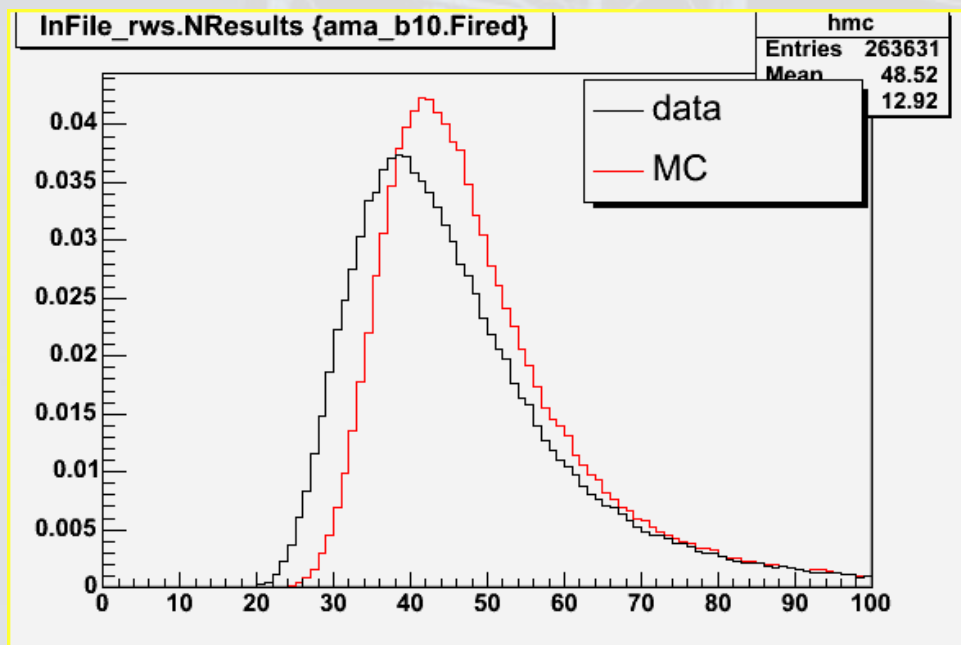


After

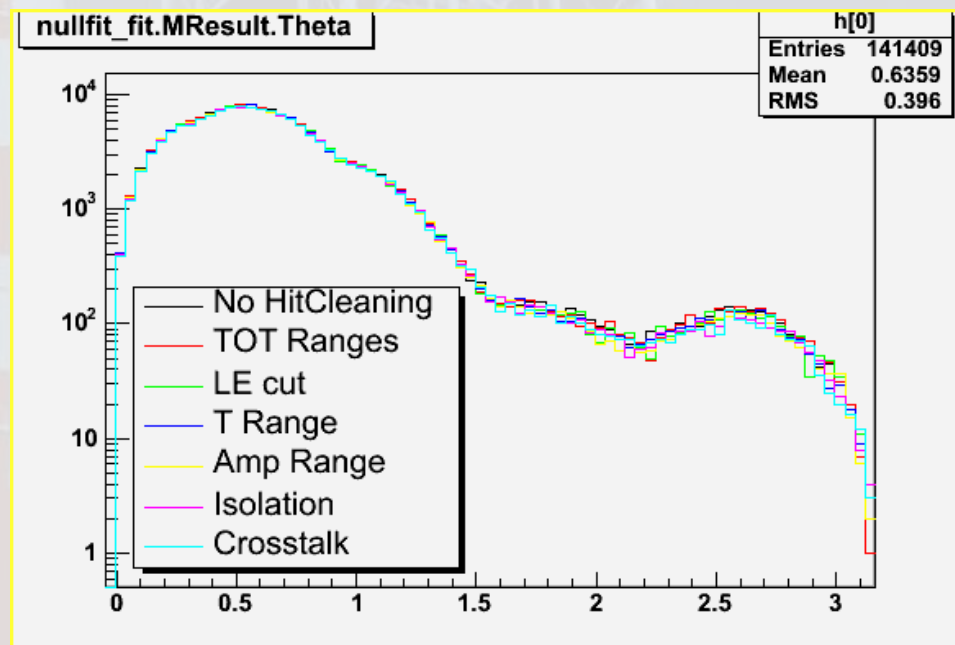


Thanks to Ignacio & Ralf!

Hit Cleaning

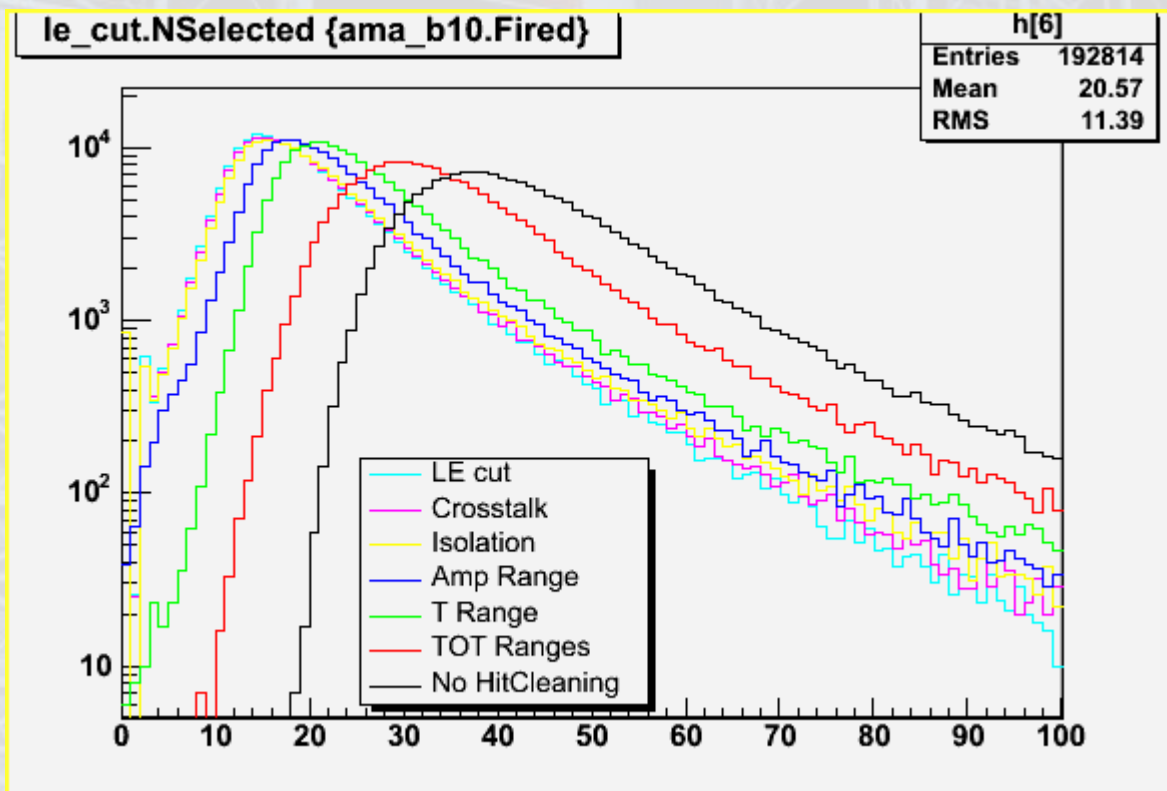


NHits: Matters



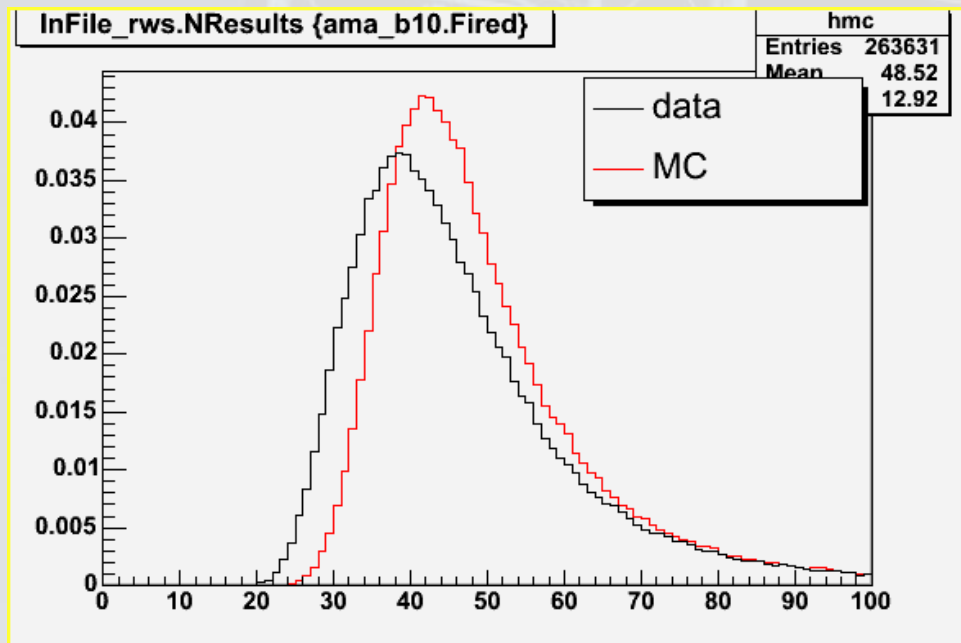
(JAMS) Reco: Doesn't

Hit Cleaning: Relative Effect

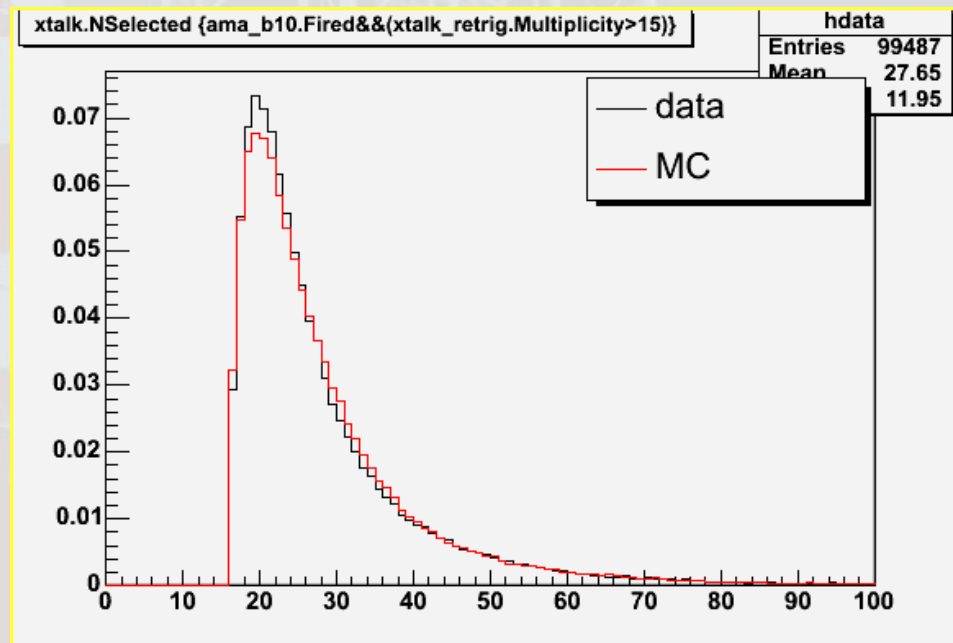


Example: 1997

Before



After



Passing cuts:

52% of data events,

75% of dcorsika MC events

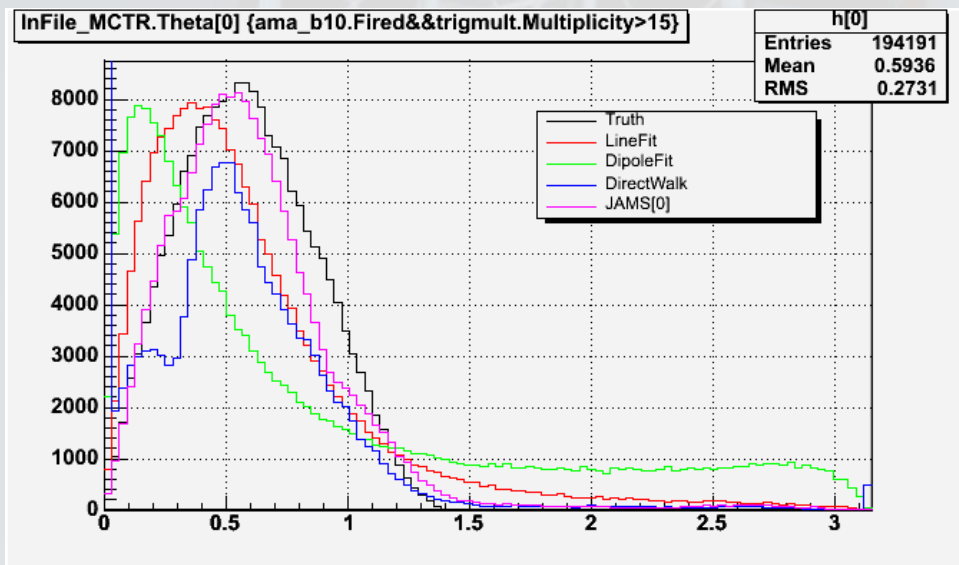
84% (64%) of nusim E^{-2} (E^{-3}) events

More Detail: <http://w3.iihe.ac.be/~berghaus/notes/ana/HitCleaning.html>

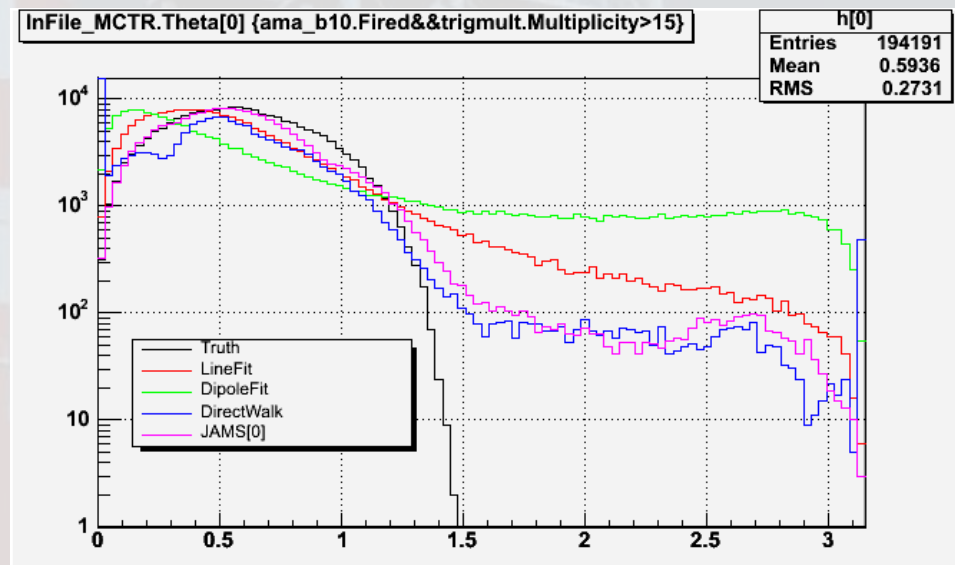
First (Guess) Results

- Sieglinde works well for First Guess

FG: dcorsika (97)

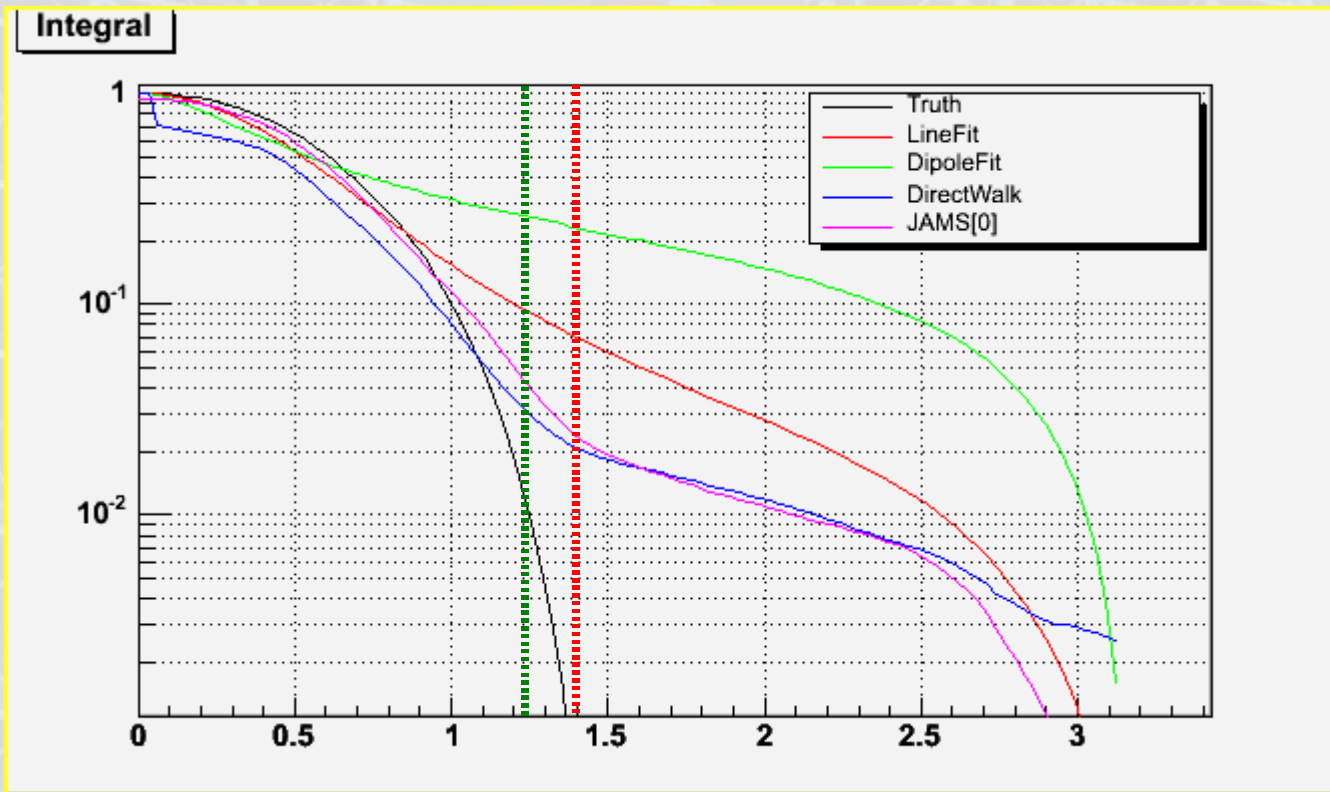


lin

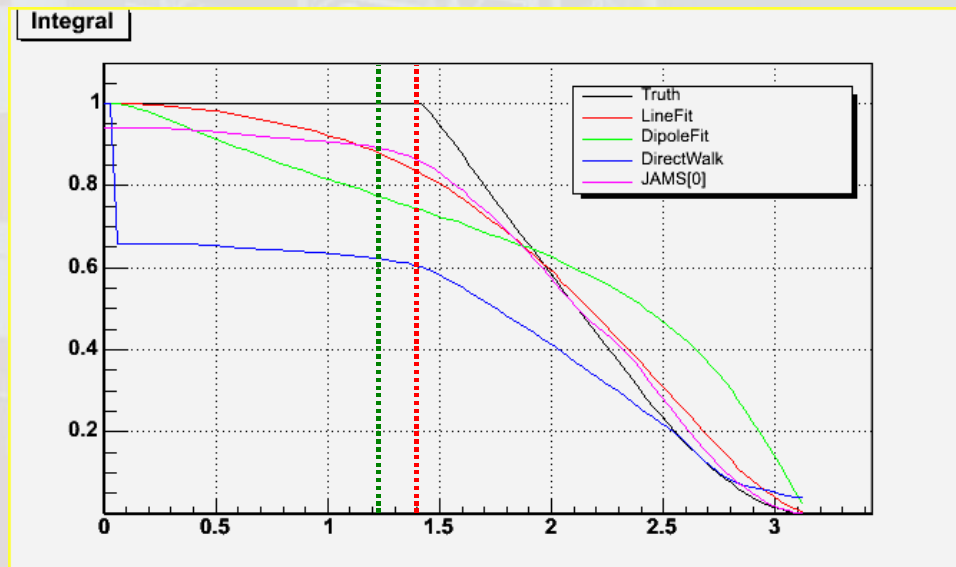
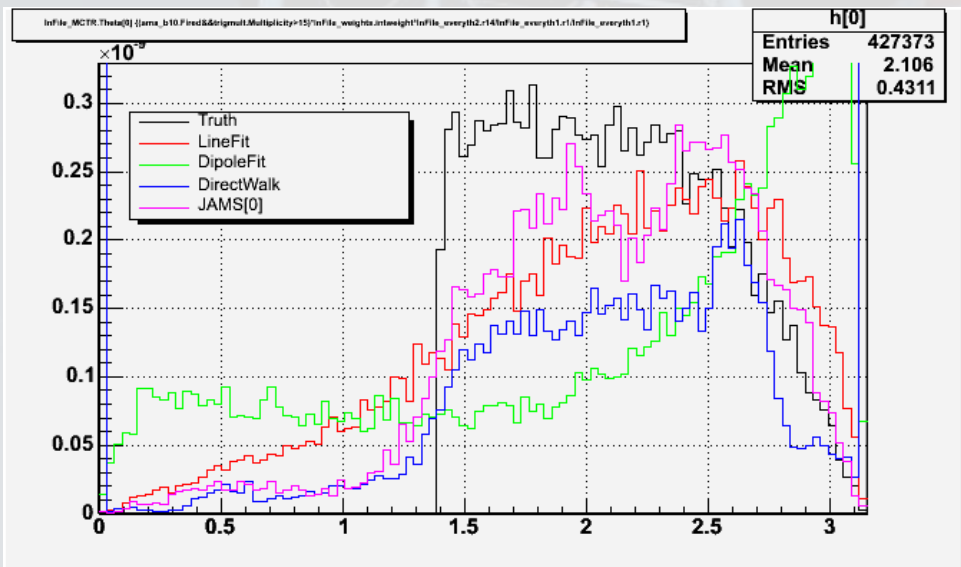


log

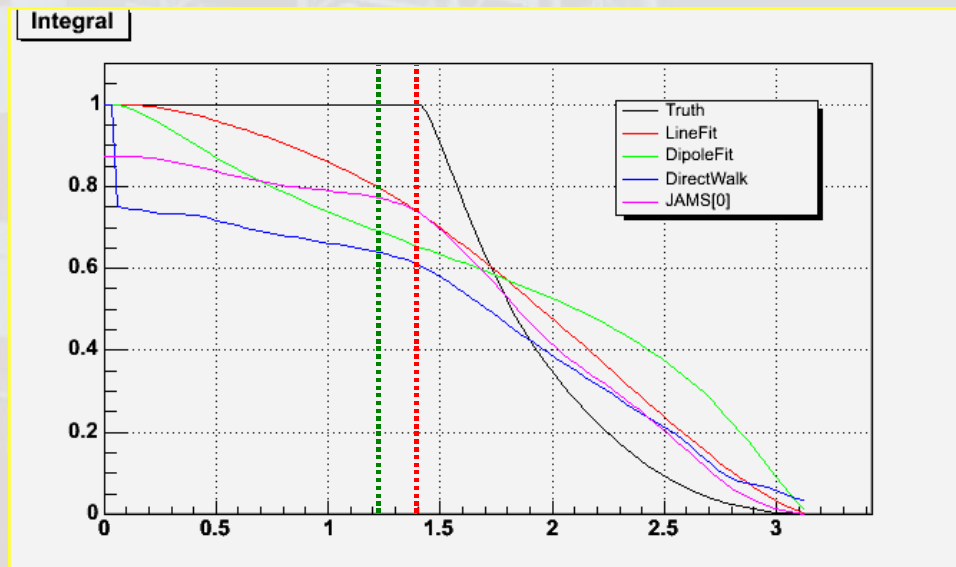
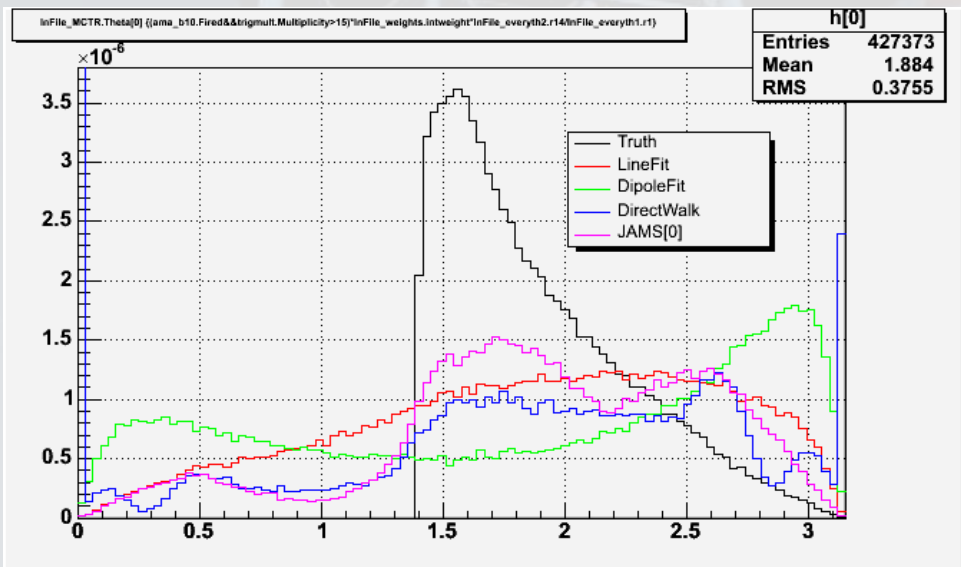
L1/L2 dcorsika



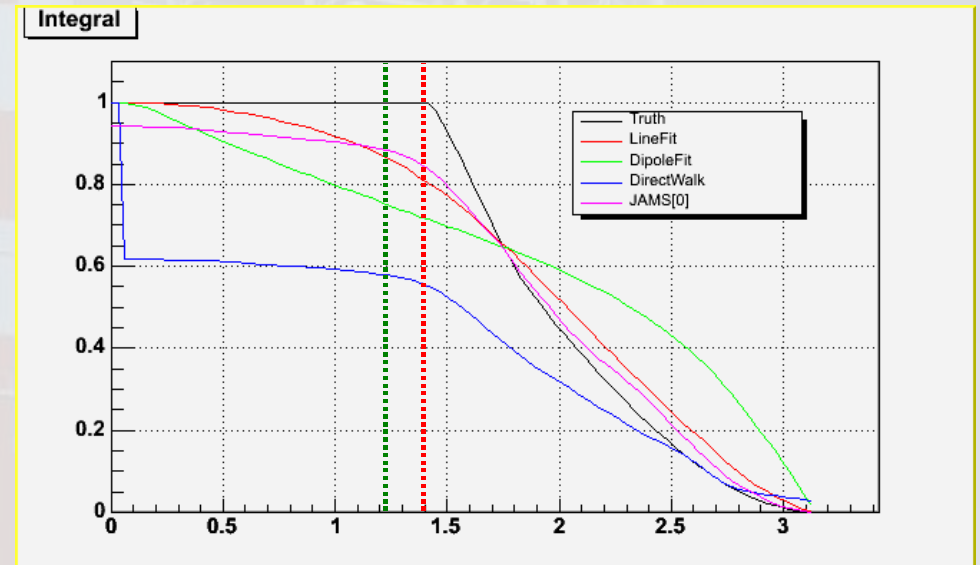
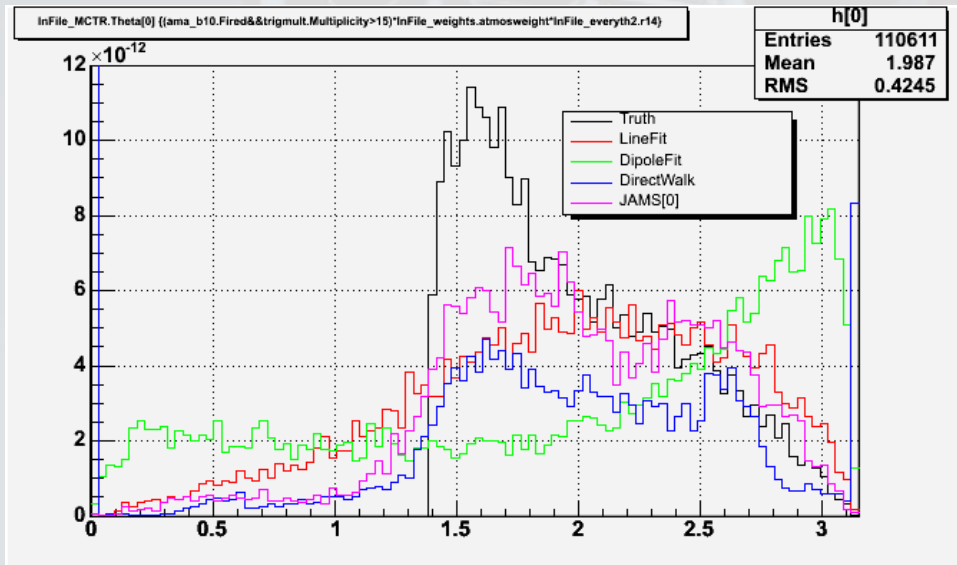
L1/L2 nusim E^{-3}



L1/L2 nusim E^{-2}



L1/L2 nusim atmospheric



FG Summary

- JAMS works best
- Factor 2-3 cleaner sample compared to LF
- 50% more events compared to DW
- JAMS80 compared to LF+sLLH?



Future

- Complete MC (End April)
- Refilter Data (1-2 months?)
- Coordination with Elisa/Elisa/Markus (Mkn 501 Flare 1997)
- Analysis Software Debugging
- ICRC!

