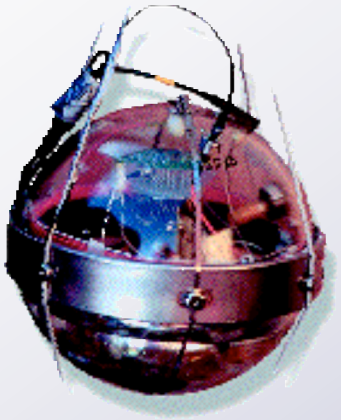
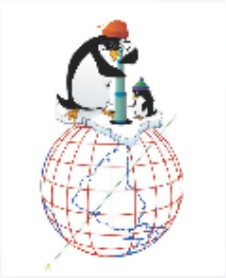


OM Sensitivity and Misreconstructed Muons: Ridiculously Preliminary Results

John Kelley

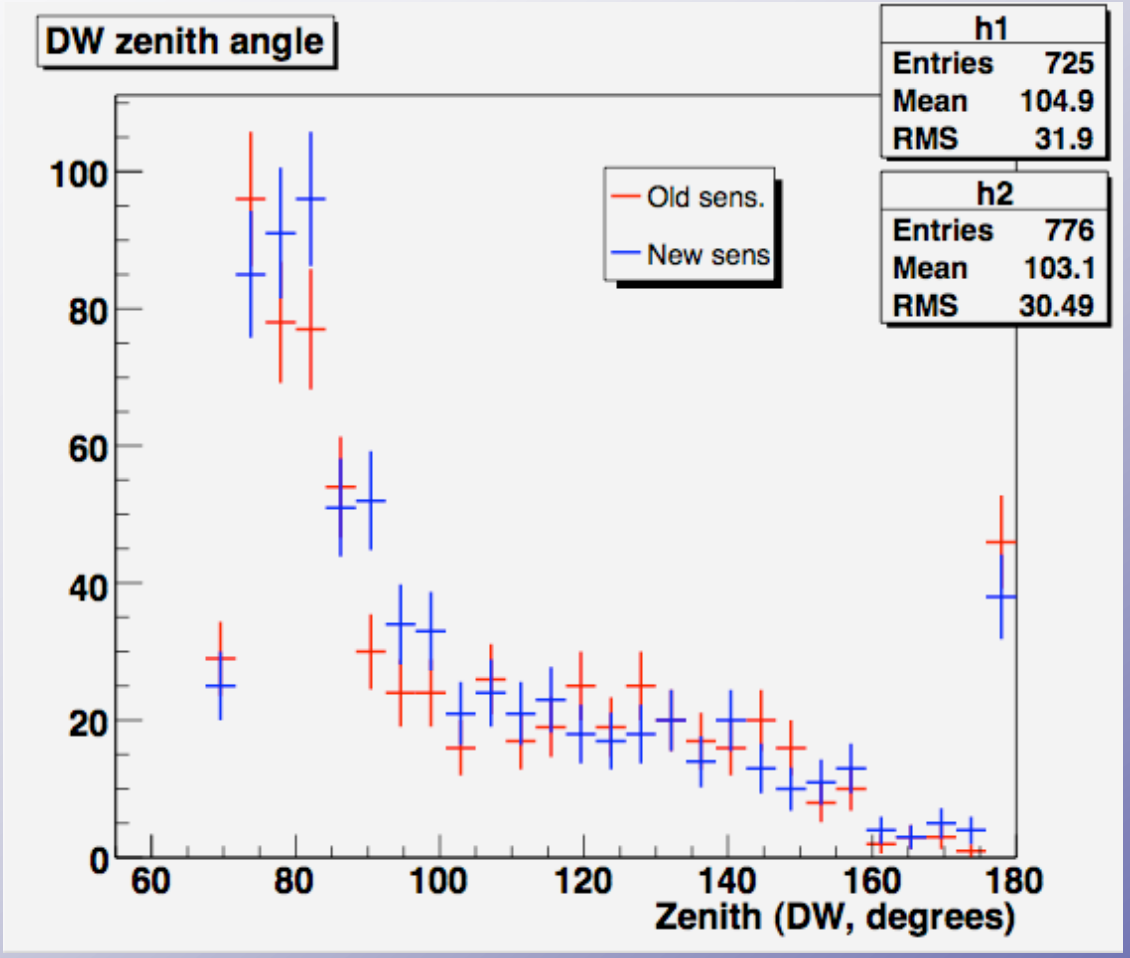
December 5, 2005



Sensitivity Changes

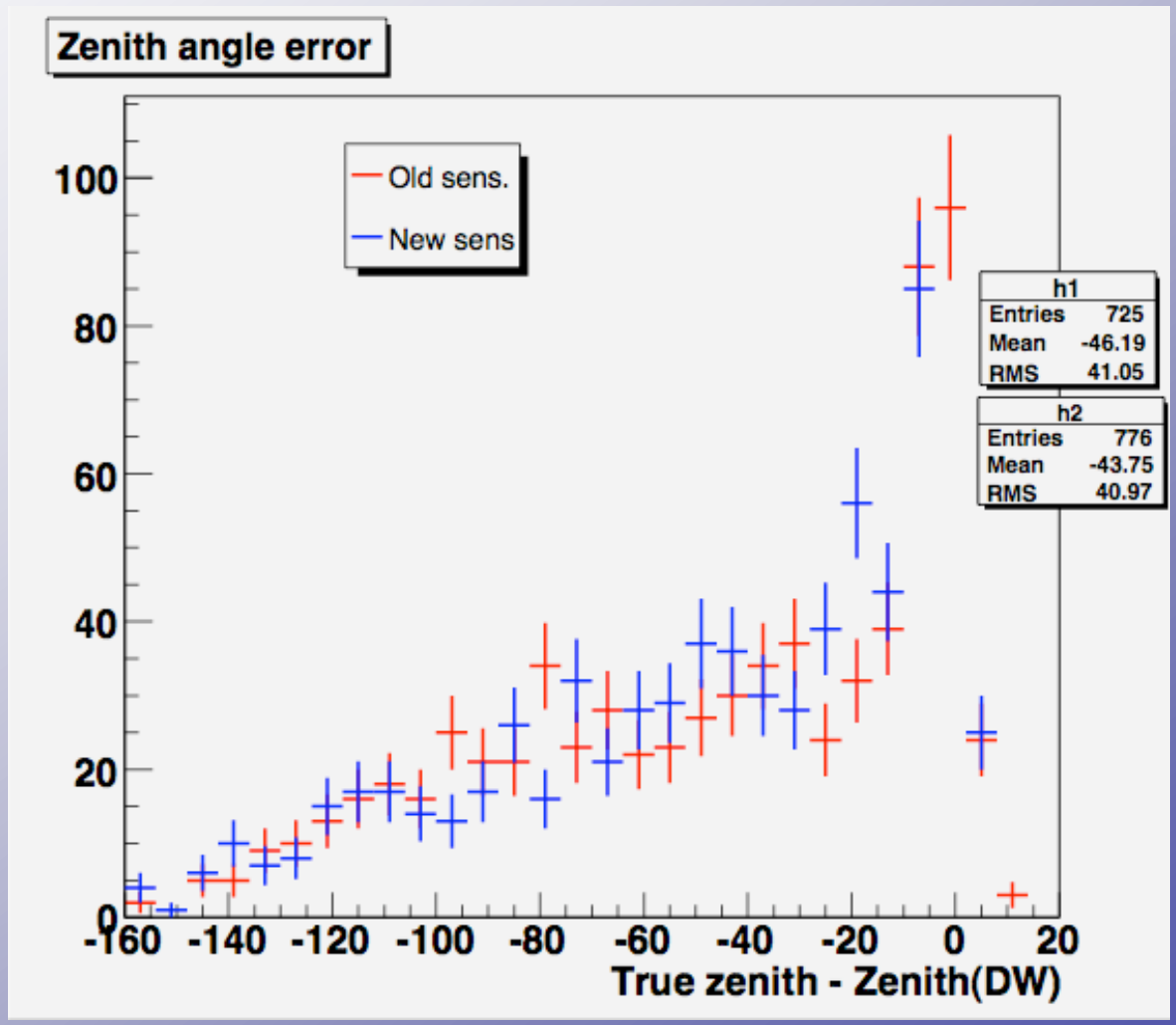
- Sensitivity of strings 1-4 changed to 0.73 (from 0.85)
- Sensitivity of strings 11-13 changed to 1.21 (from 1.0)
- Dcorsika generated and run through 2000-03 Zeuthen downgoing processing to L3
  (200 files each of original and modified cases)

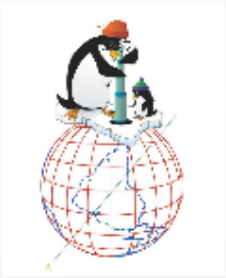
Zenith Angle (Direct Walk)



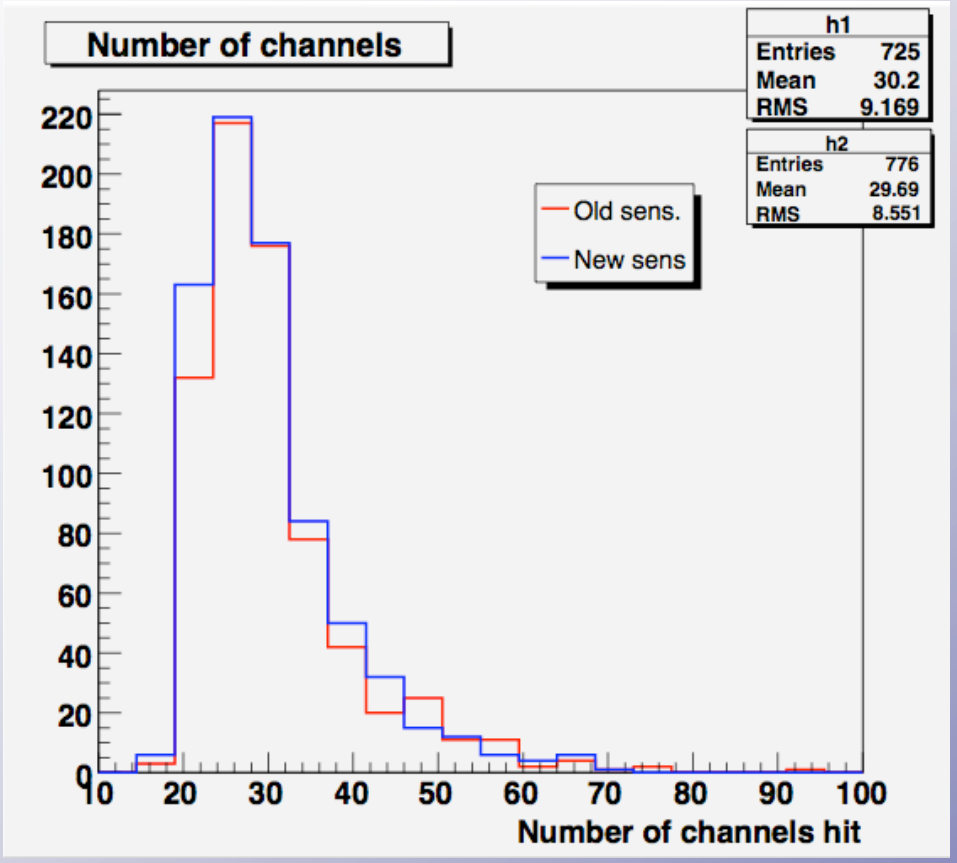
- Statistics are still fairly low at L3
- Trigger rate is 0.8% higher (new string sens.)

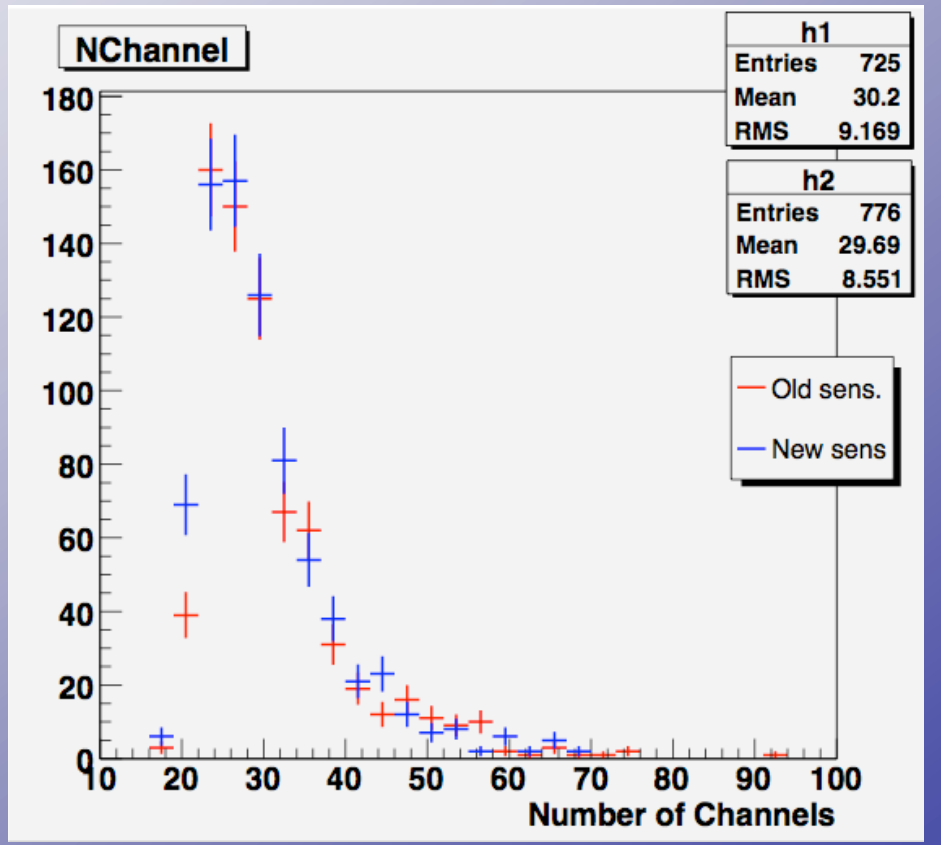
Zenith Angle Error



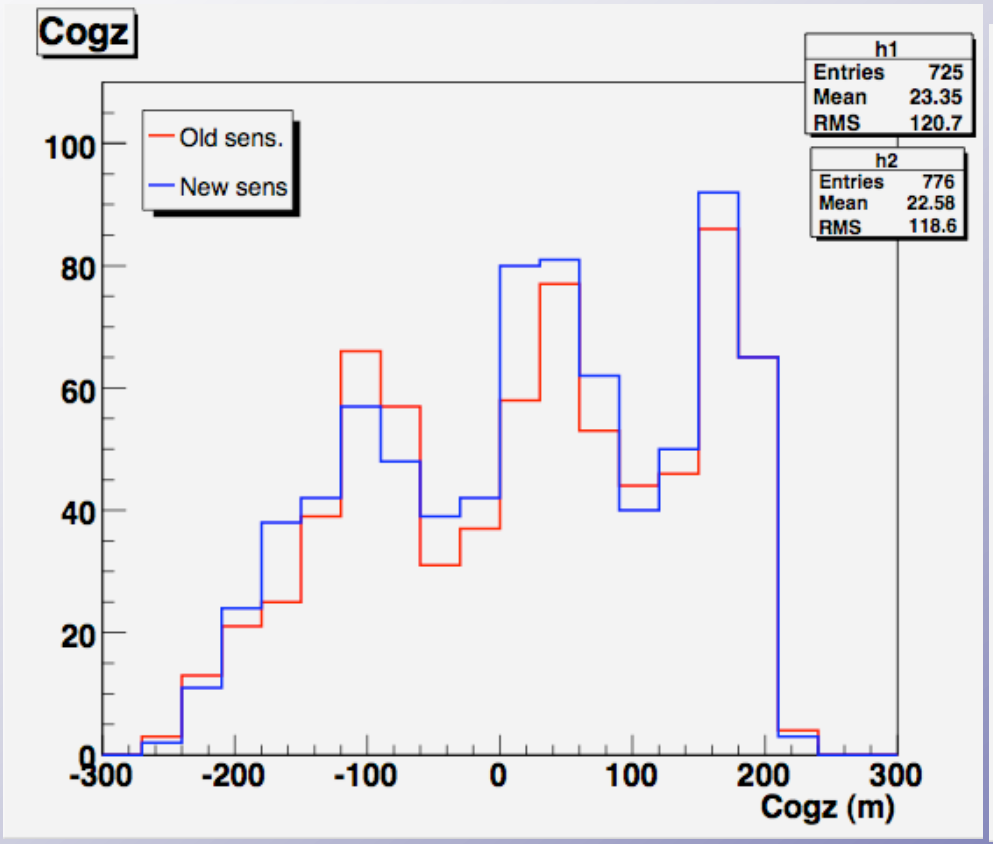


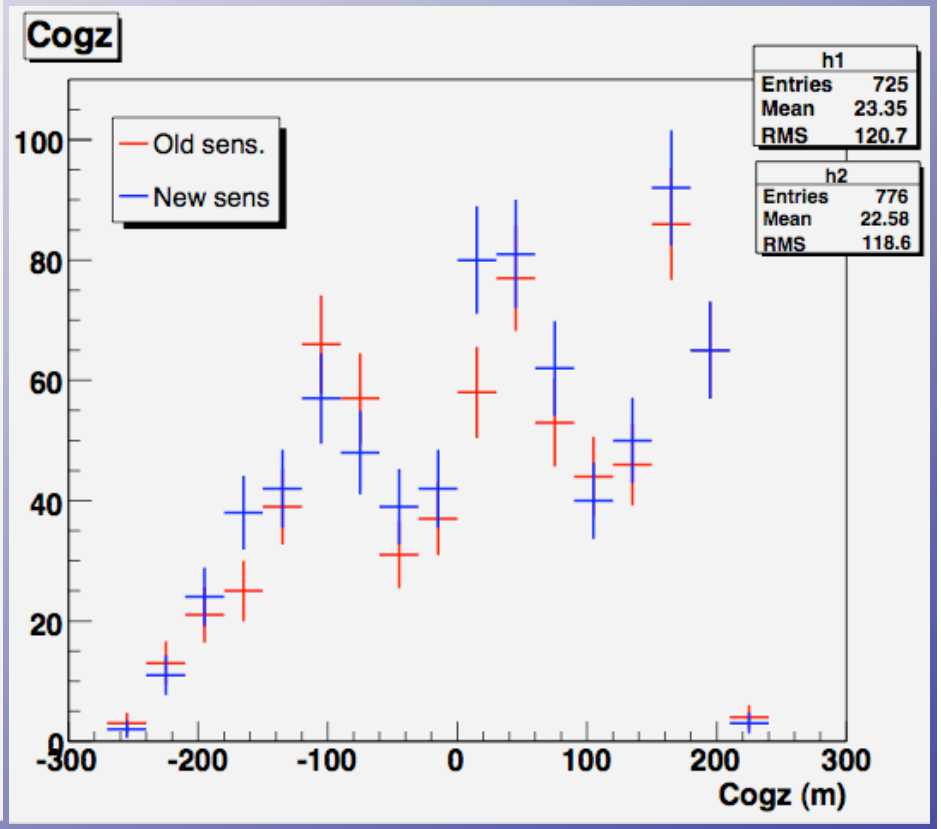
NChannel

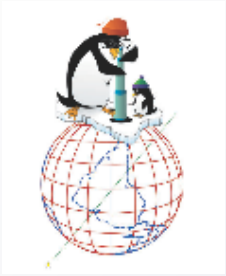

Number of channels
h1
Entries 725
Mean 30.2
RMS 9.169
h2
Entries 776
Mean 29.69
RMS 8.551
Old sens.
New sens
Number of channels hit


NChannel
h1
Entries 725
Mean 30.2
RMS 9.169
h2
Entries 776
Mean 29.69
RMS 8.551
Old sens.
New sens
Number of Channels

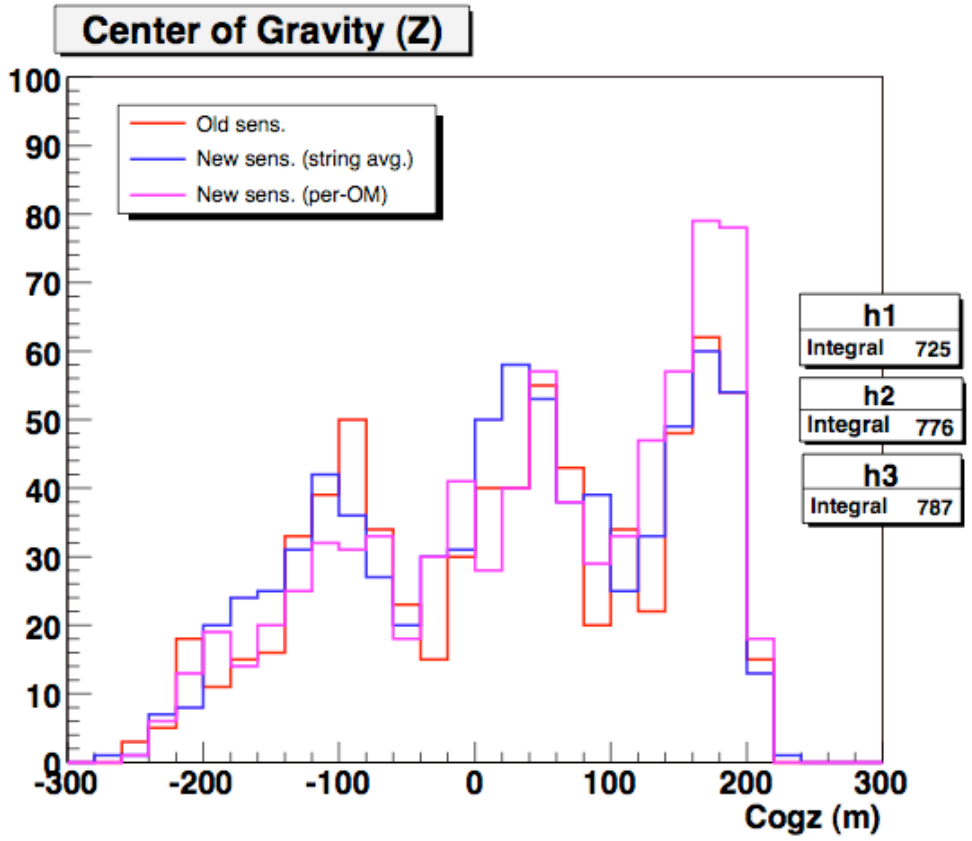
Center of Gravity — Z

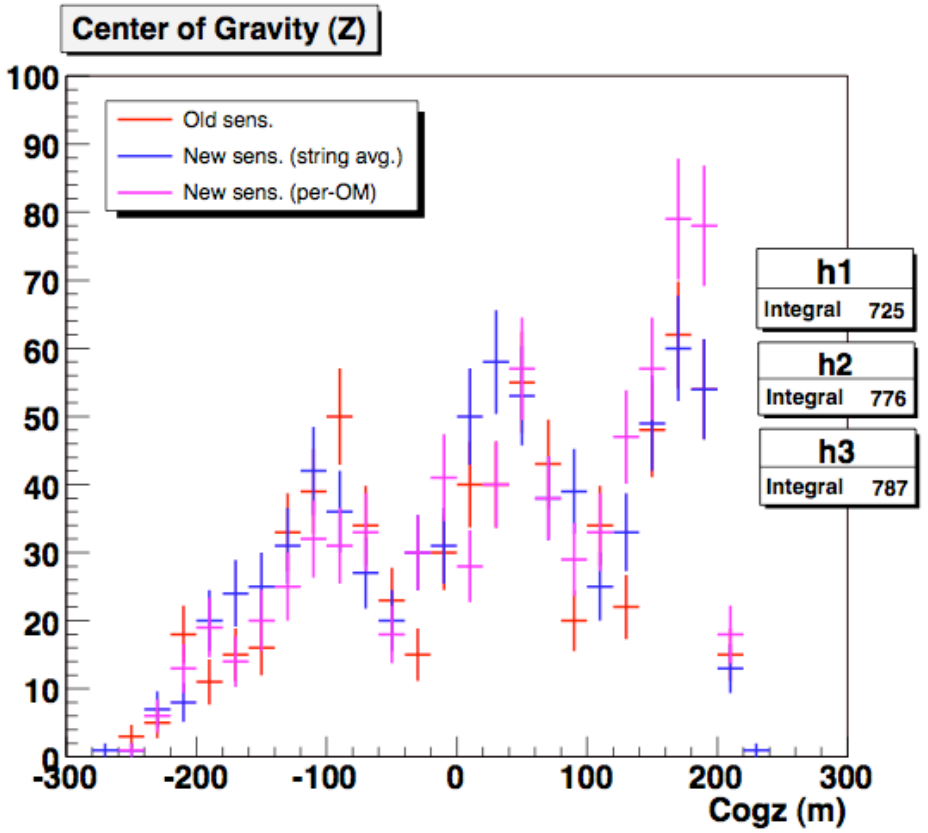






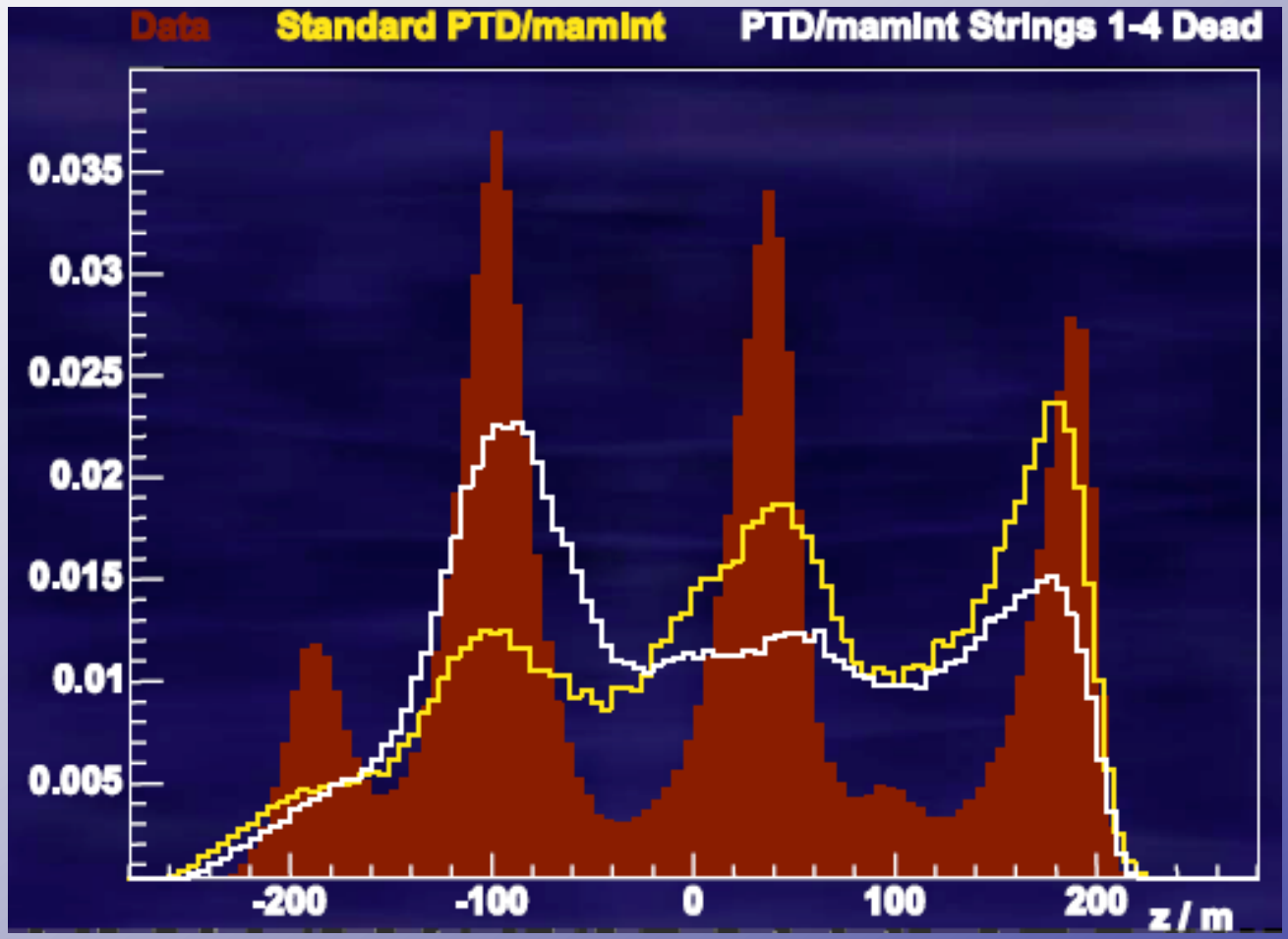
Individual OM Sens.

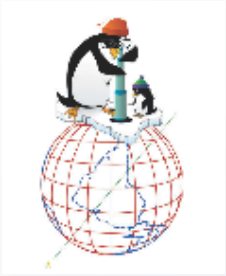




Amasim with individual OM sensitivities from Lang's work:
/data/jkelley/detector/AMAII/2003/geo/ama.elec.mc2003.omsens

Comparison with Lang





Summary

- Results are consistent with little to no change in Nch, Cogz… at this level of statistics.
- *Might* be a bit of change in 4th COGZ peak
- Generating 5x more statistics now