



GLAST Large Area Telescope:

PSF with Low-Energy Tagged photons

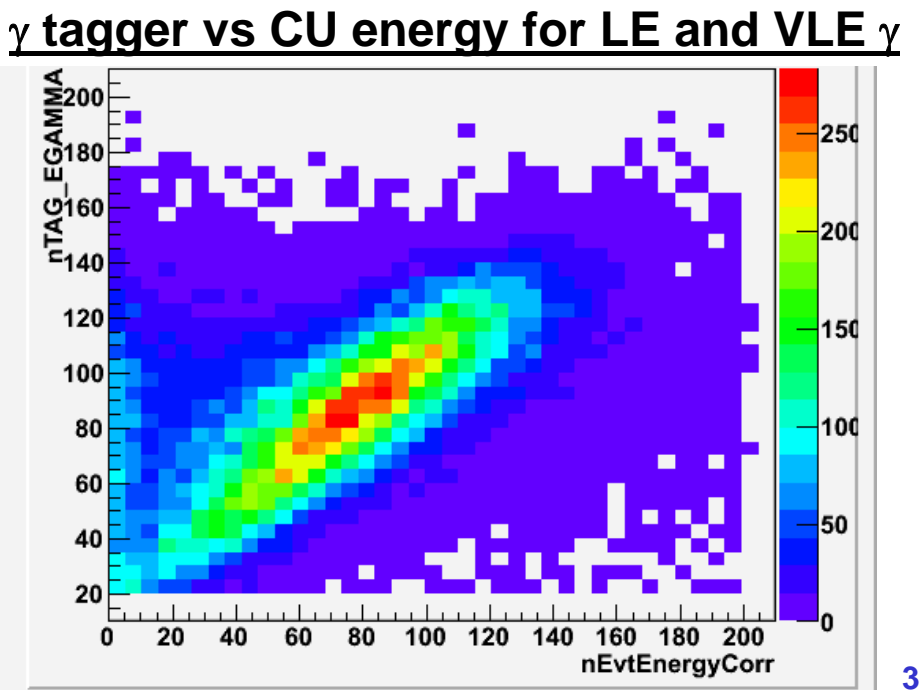
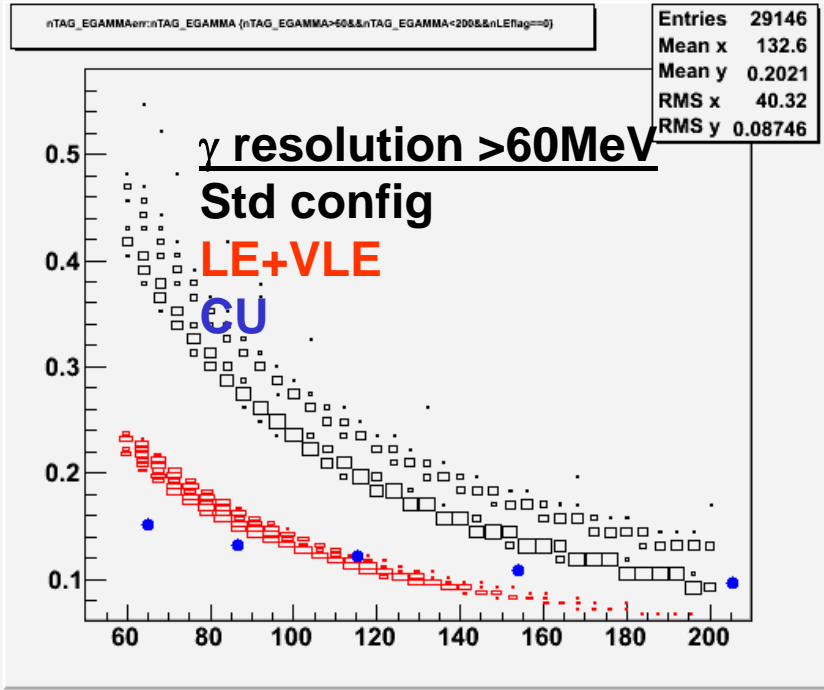
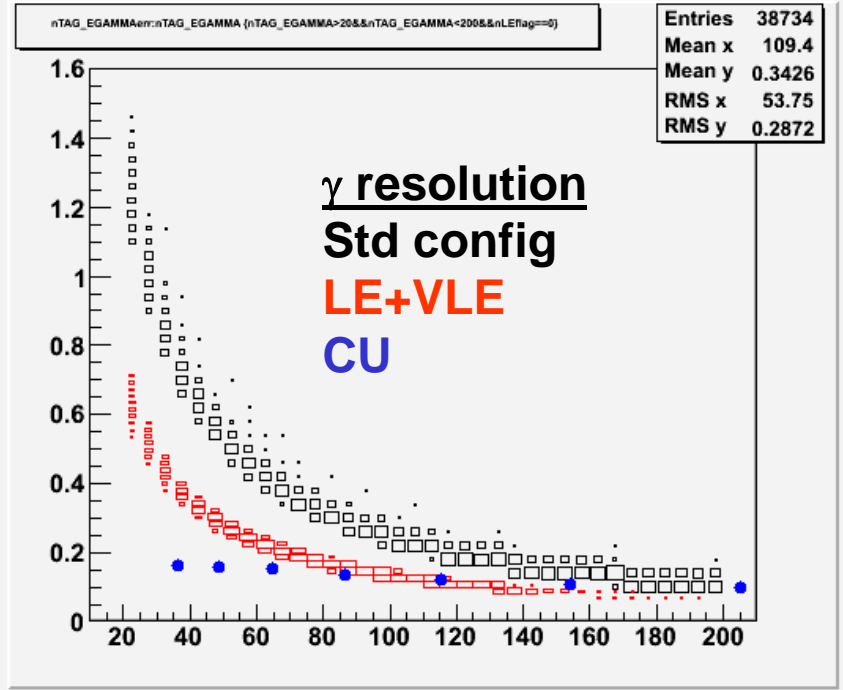
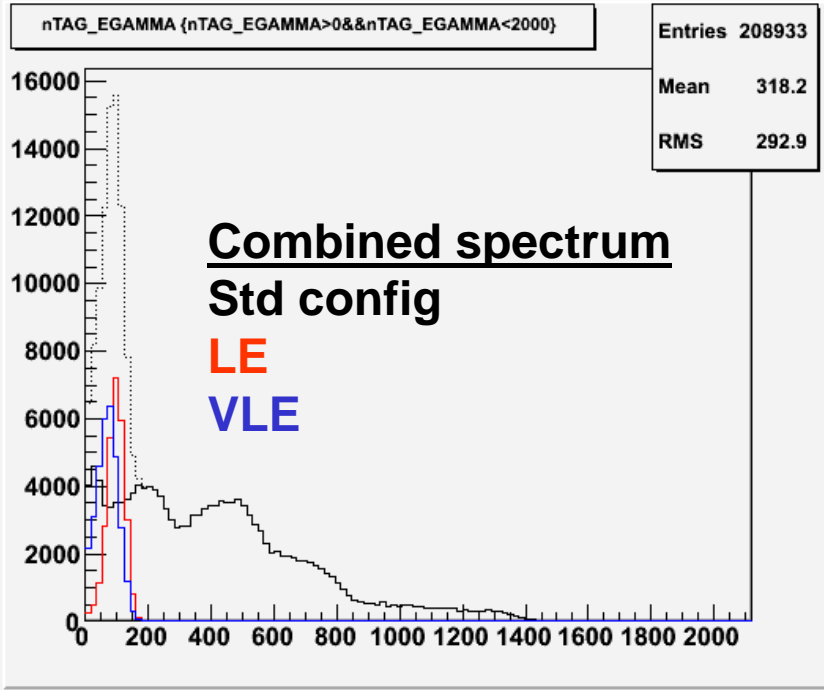
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Analysis

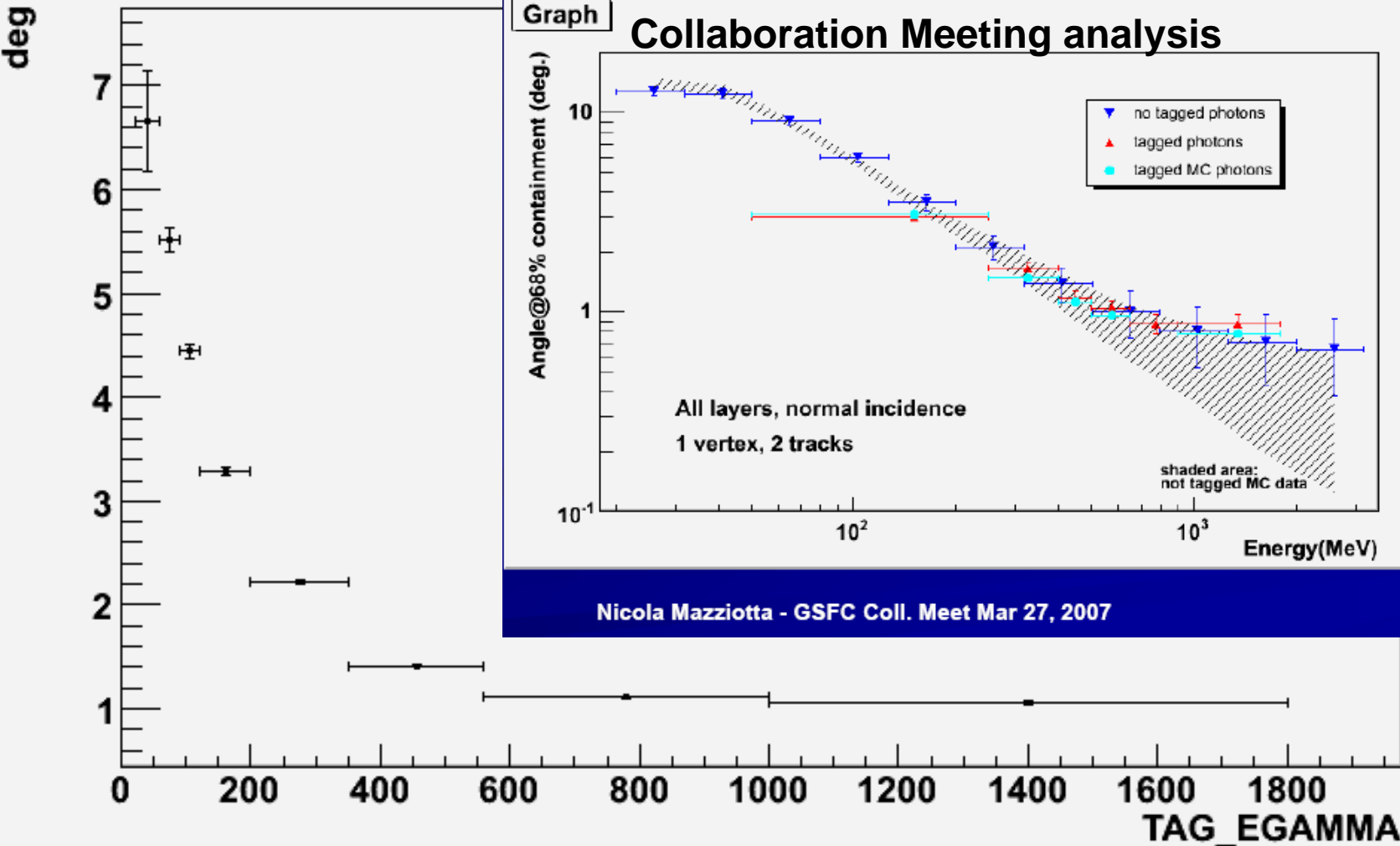
- ❑ Analyzed runs at LE (500MeV, 480A) and VLE (500MeV, 525A)
 - Only analyzed data at 0° through twr3
 - LE: 1650-1652-1653-1654 - VLE: 1692-1693-1694
 - Reanalyzed calibration runs
 - LE: 1645 - VLE: 1690
 - Found that MS is higher than MS with same energy beam and std configuration, but could not understand why
 - maybe some different beam parameter
 - Stayed on the safe side and used higher MS
- ❑ Cuts
 - good tagger reconstruction
 - TAG_EGAMMA >0 && TAG_THETA_IN>-100
 - something in CU and reasonable CU recon
 - CalEnergyCorr>20 && CTBCORE >0.1
 - PSF for
 - Vts topology evts
 - TkrNumTracks==2 && (nVtxStatus==162 || nVtxStatus==34)
 - Single track events
 - TkrNumTracks==1





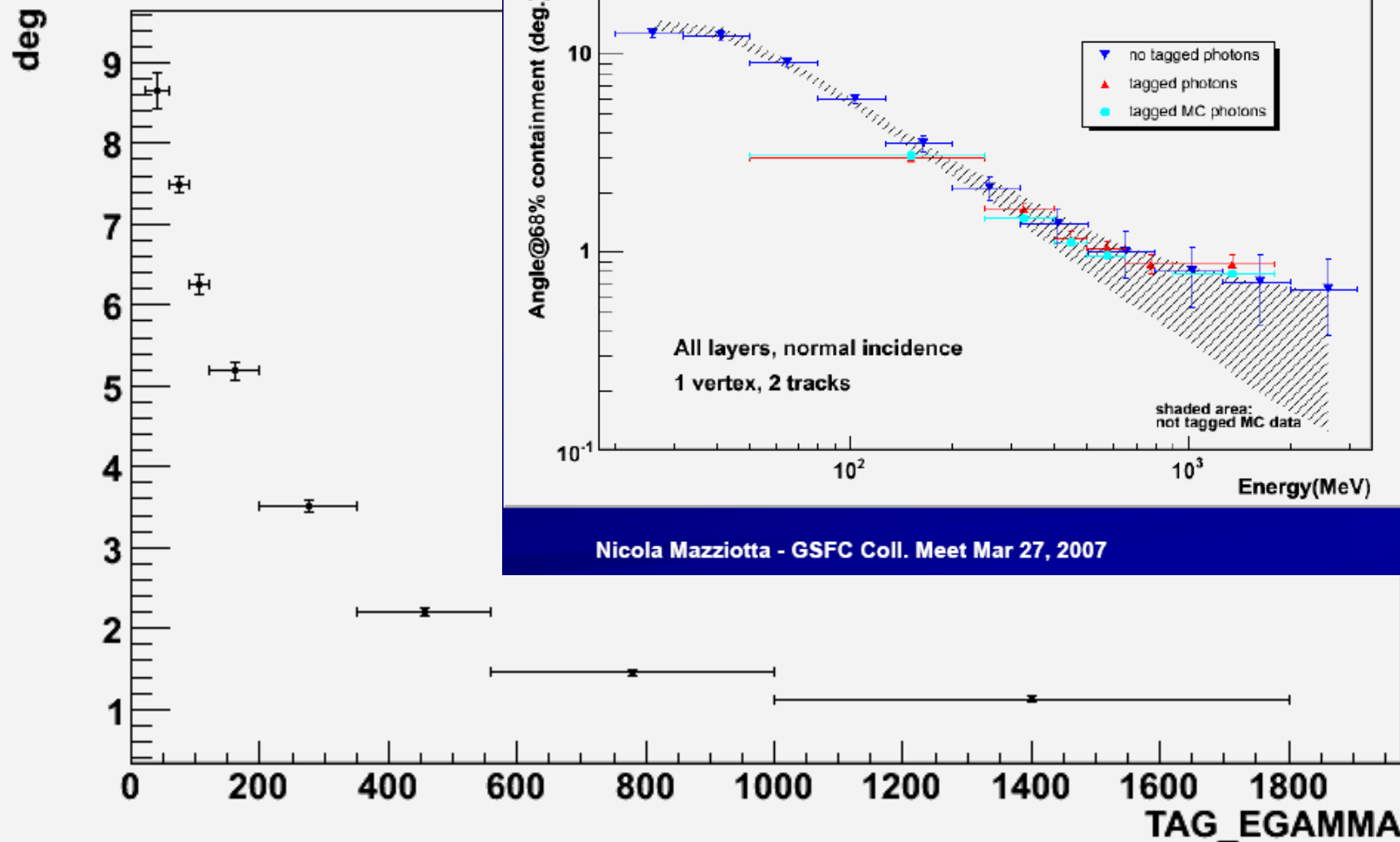
68% containment angle for for Vertex events

Graph

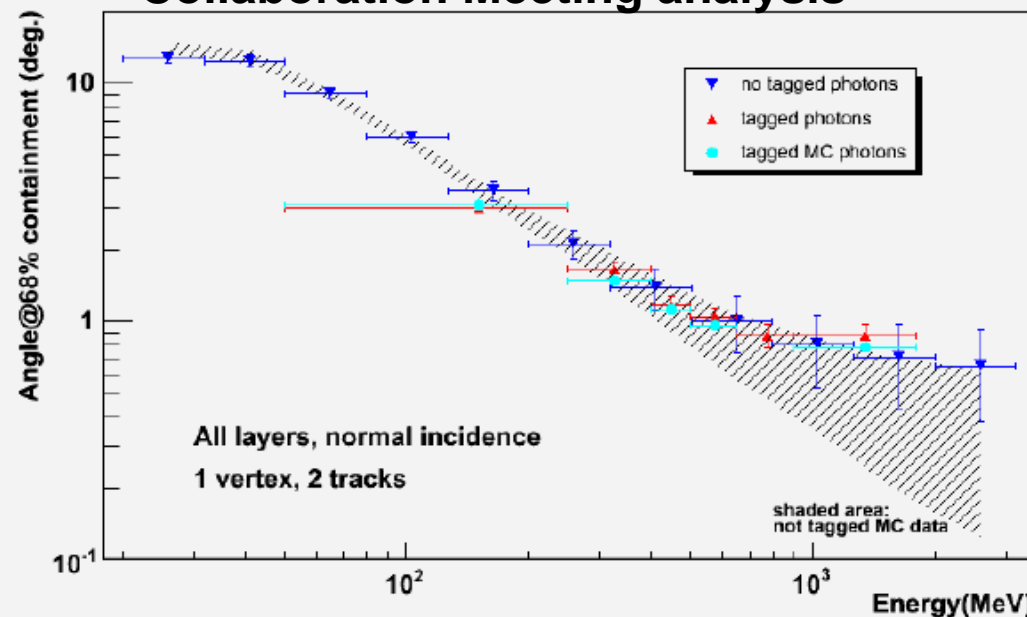




68% containment angle for Single Track events

Graph**Graph**

Collaboration Meeting analysis



Nicola Mazziotta - GSFC Coll. Meet Mar 27, 2007



Conclusions

- ☐ Work in progress
- ☐ Correct tagged gamma error computed
 - Will feed it into BTRelase
- ☐ Reasonable statistics found
- ☐ Energy bin < 200 MeV now can be explored
 - Both for PSF (compare with big red cross in collaboration meeting analysis)
 - Potentially for energy reconstruction studies too
 - Tagger resolution explodes at very low energy by construction
- ☐ Containment angle seems smaller than full bremsstrahlung
 - PSF results are preliminary and need cross-check