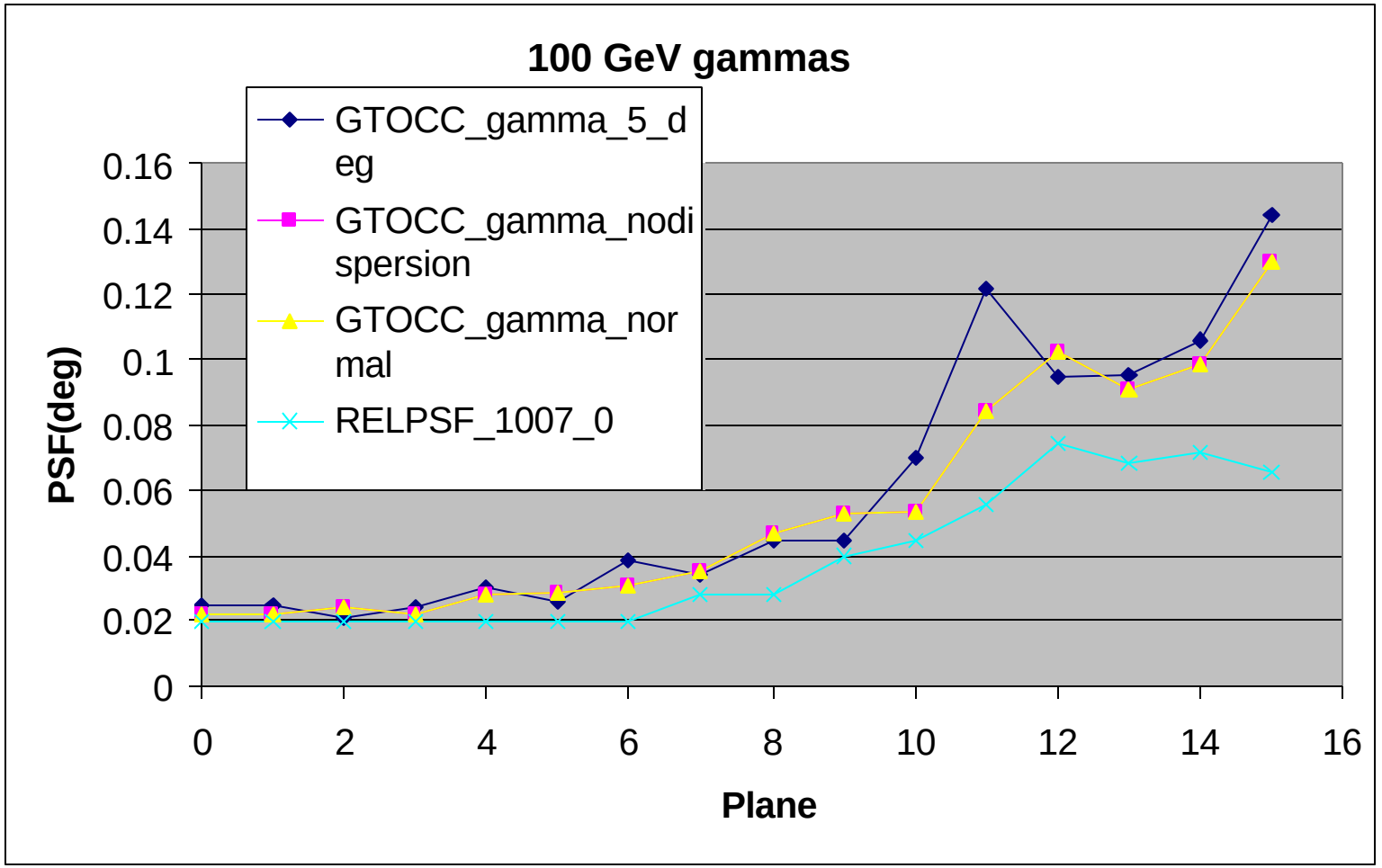
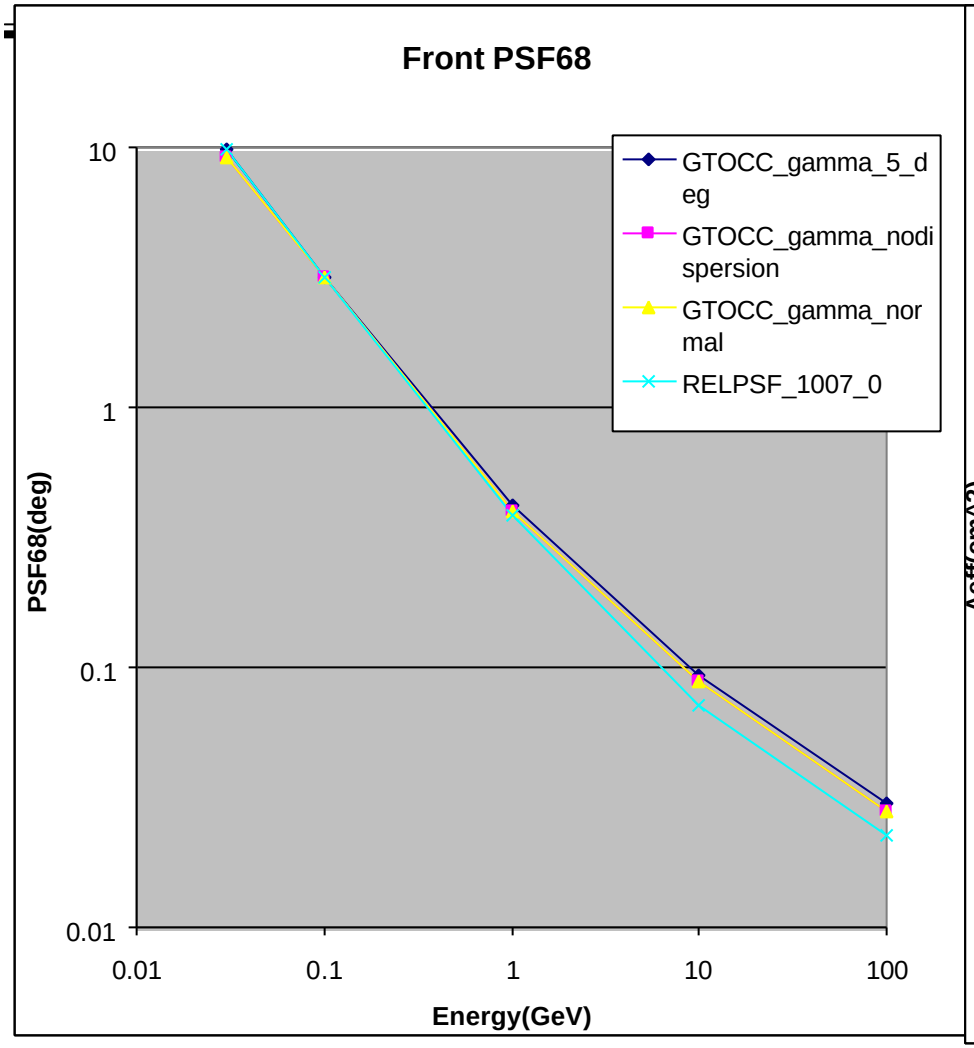
Progress Update

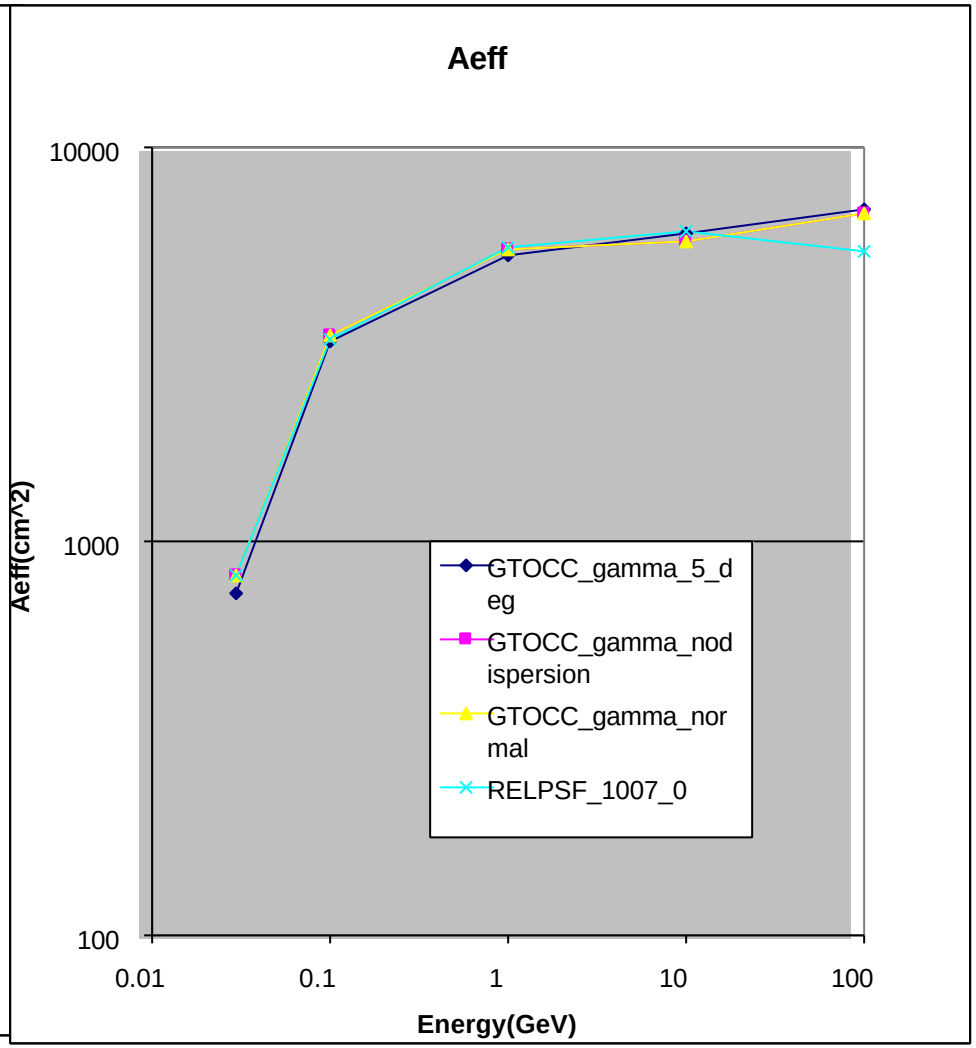
Recently we decided to look back at some of the numbers produced for AO99 and those from the Gtalk results of late last year. We found that the PSF68 and the Aeff were both in reasonable agreement from 0.03 GeV to 10 GeV. The Aeff of the 100 GeV AO99 data set is below that of its more recent Gtalk counterparts.

Progress Update



Progress Update





Progress Update

The previous slides shows that the “RELPSF” or AO99 data set has an Aeff lower then the GTOCC data sets for each plane. We attempted to reproduce the characteristics of this data set by having new data sets produced using GlastSim at SLAC, these data are the remainder of points on the graph. Unfortunately none of the GTOCC data sets agree with the AO99 set making an explanation, other then corruption of the data set, unlikely.

Progress Update

We did, however, learn things of interest while doing the analysis:

•The analysis of both PSF68 and Aeff should be done, during demo phase, looking at individual planes. This allows us to see if we are getting results that agree with our intuition as to how the tracker should behave.

•The PSF should be calculated by adding in quadrature the PSF's of each plane weighted by that planes contribution to the total Aeff for the volume in question.

$$PSF = [\text{sum}(Aeff(\text{plane})/\{PSF(\text{plane})\}^2)/TAeff]^{-.5}$$

This gives us a PSF that is sensitive to the statistics of the data set.

In the future we plan on using the new code in the Gaudi framework to perform plane by plane analysis of MC data sets so we can confirm that the MC agrees with our intuition.