Sharper *Fermi*-LAT Images

Stephen K N Portillo, Harvard University
with Douglas P Finkbeiner
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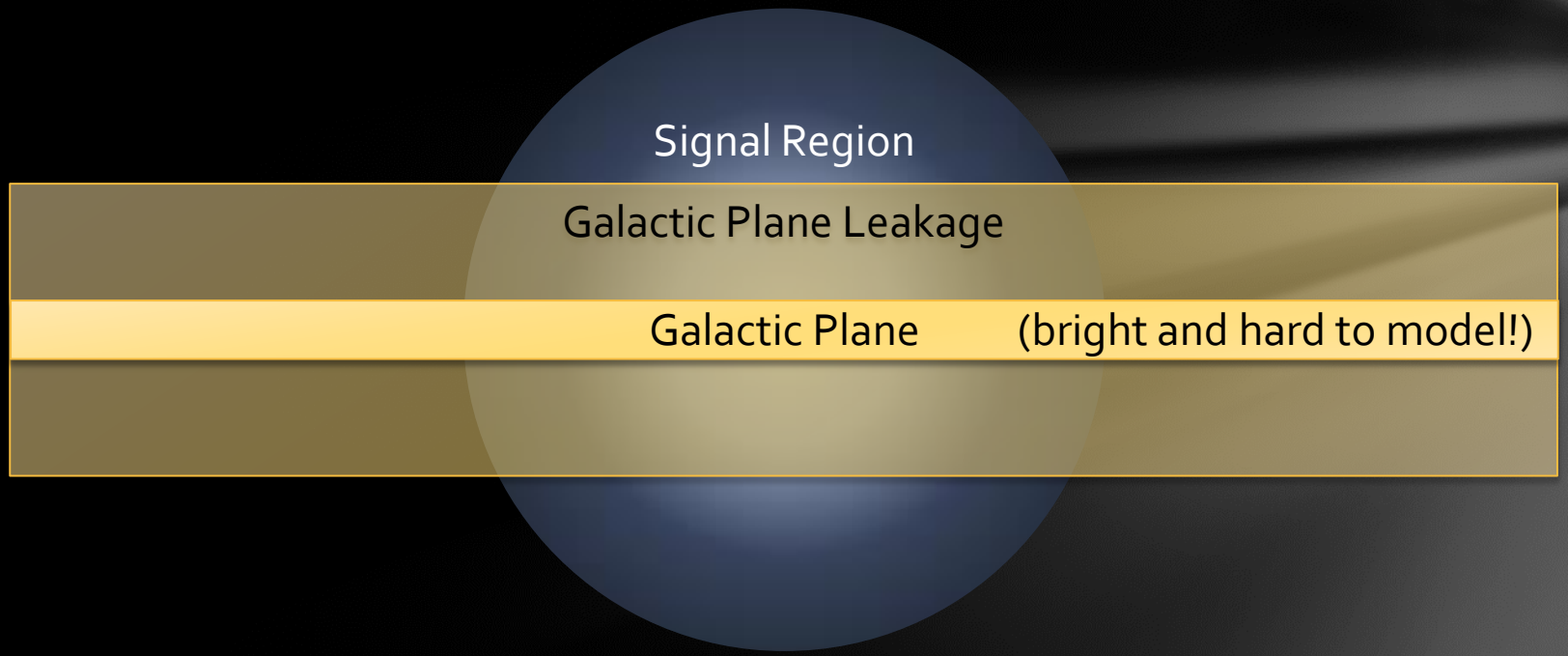
Astroparticle Physics (TeVPA/IDM), Amsterdam

Portillo & Finkbeiner, 1406.0507
submitted to ApJ

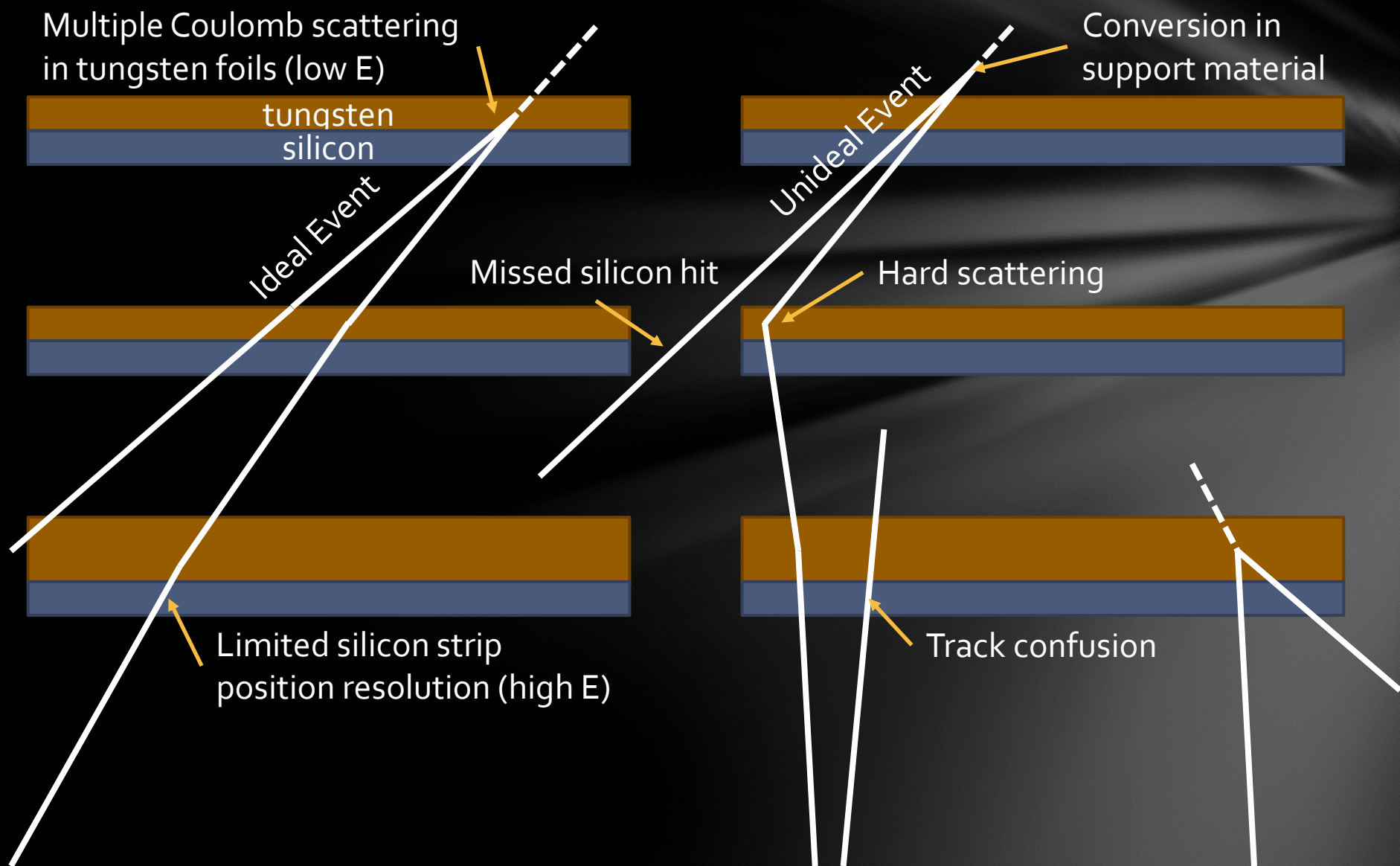
NSERC CRSNG

VE RI TAS

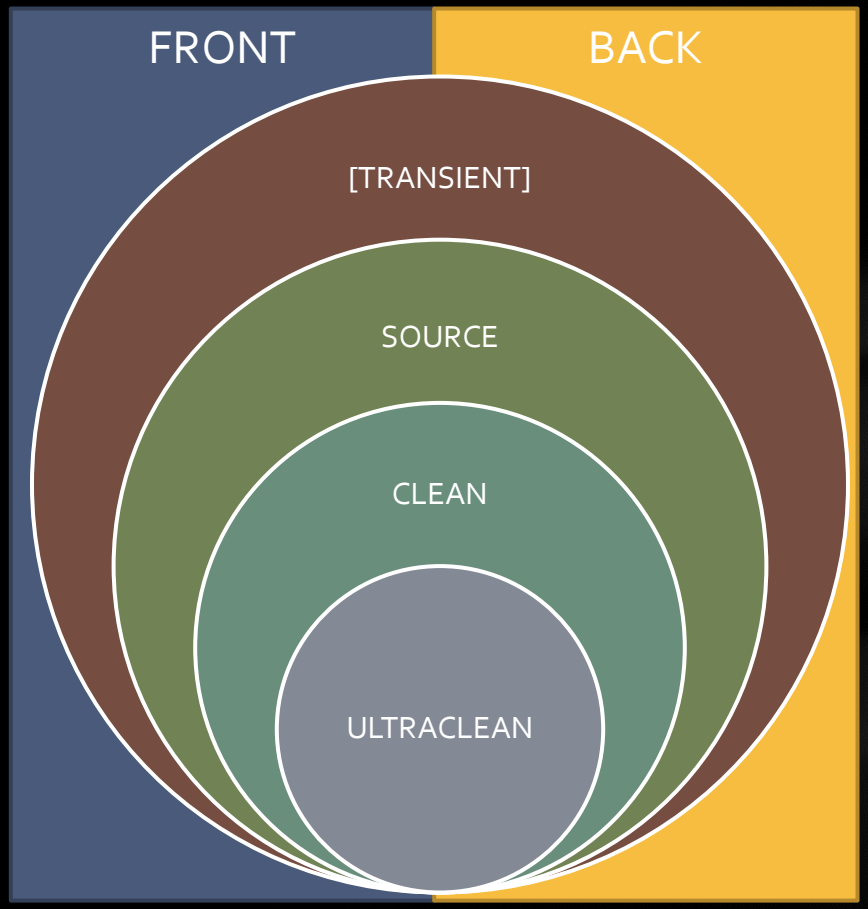
Angular Resolution Matters



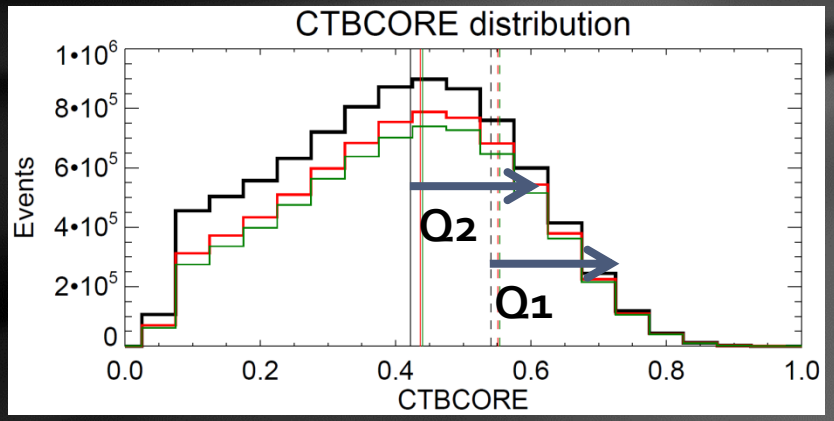
Point Spread Function



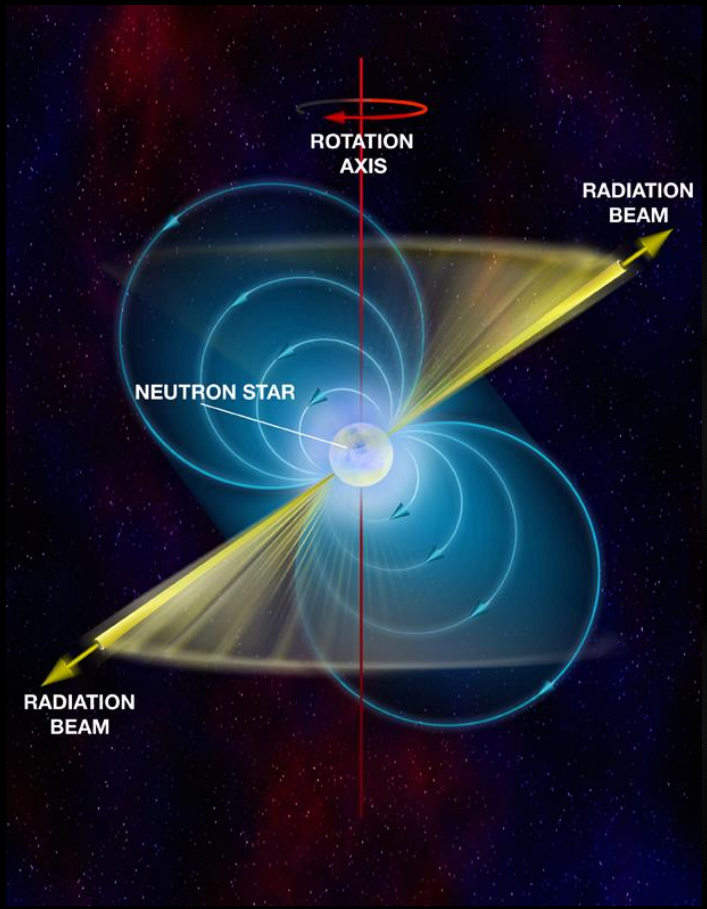
Event Classes + CTBCORE



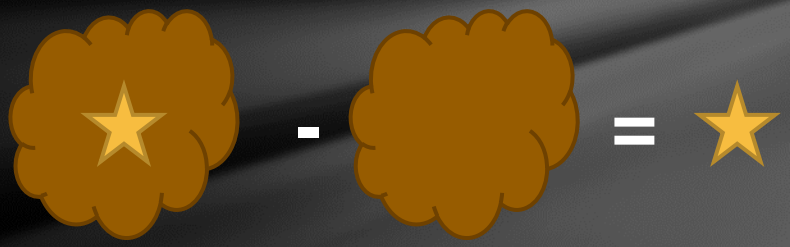
Dividing the front-converting events…



Pulsars as Point Sources



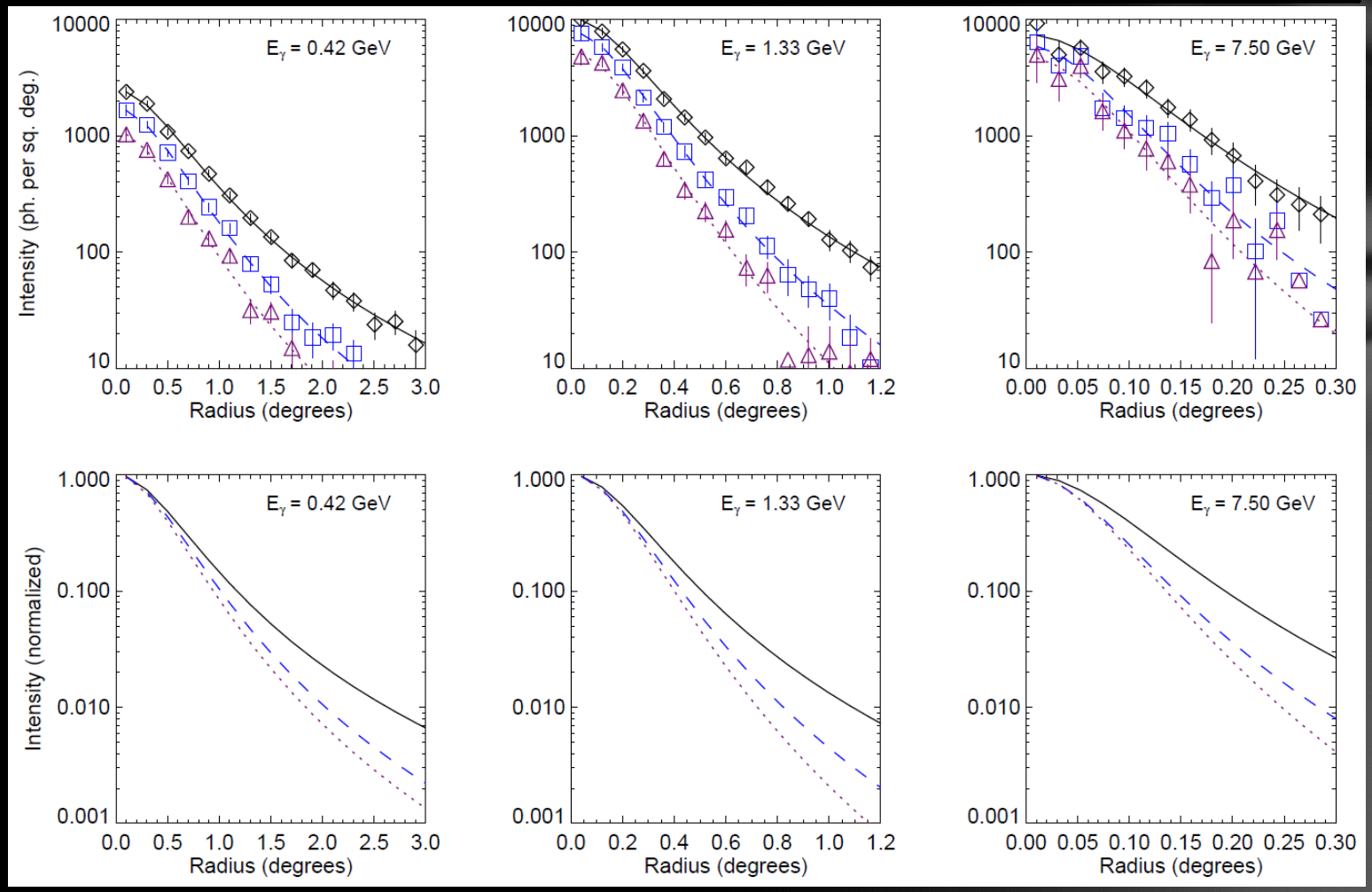
(Bill Saxton, NRAO)



On-phase Off-phase Pulsar

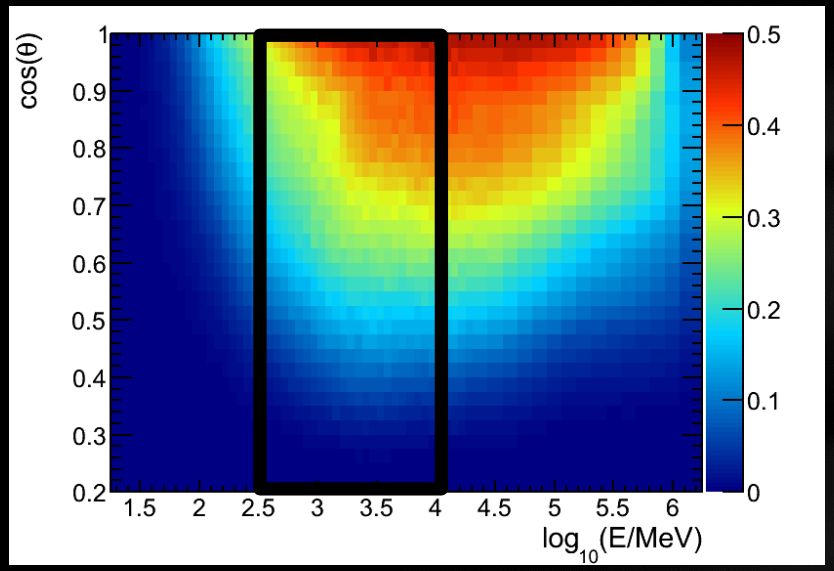
PSF Fitting

ULTRACLEAN: Allfront, Q2, Q1



Effective Area

Surviving Fraction, CLEAN, Q2



(*Fermi* Science Support Centre)

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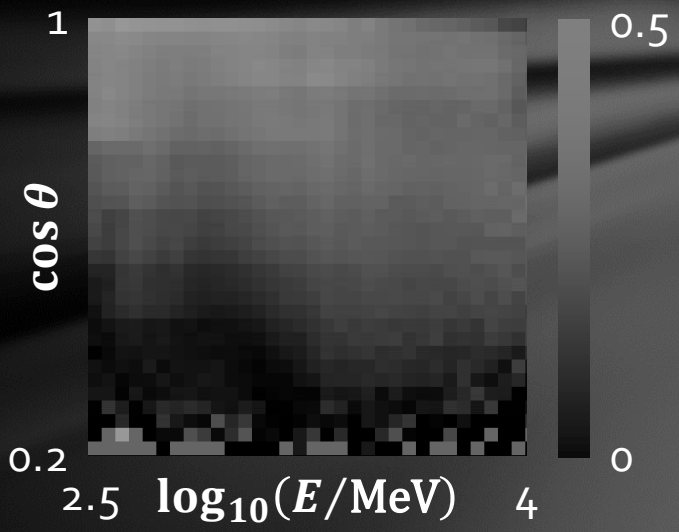
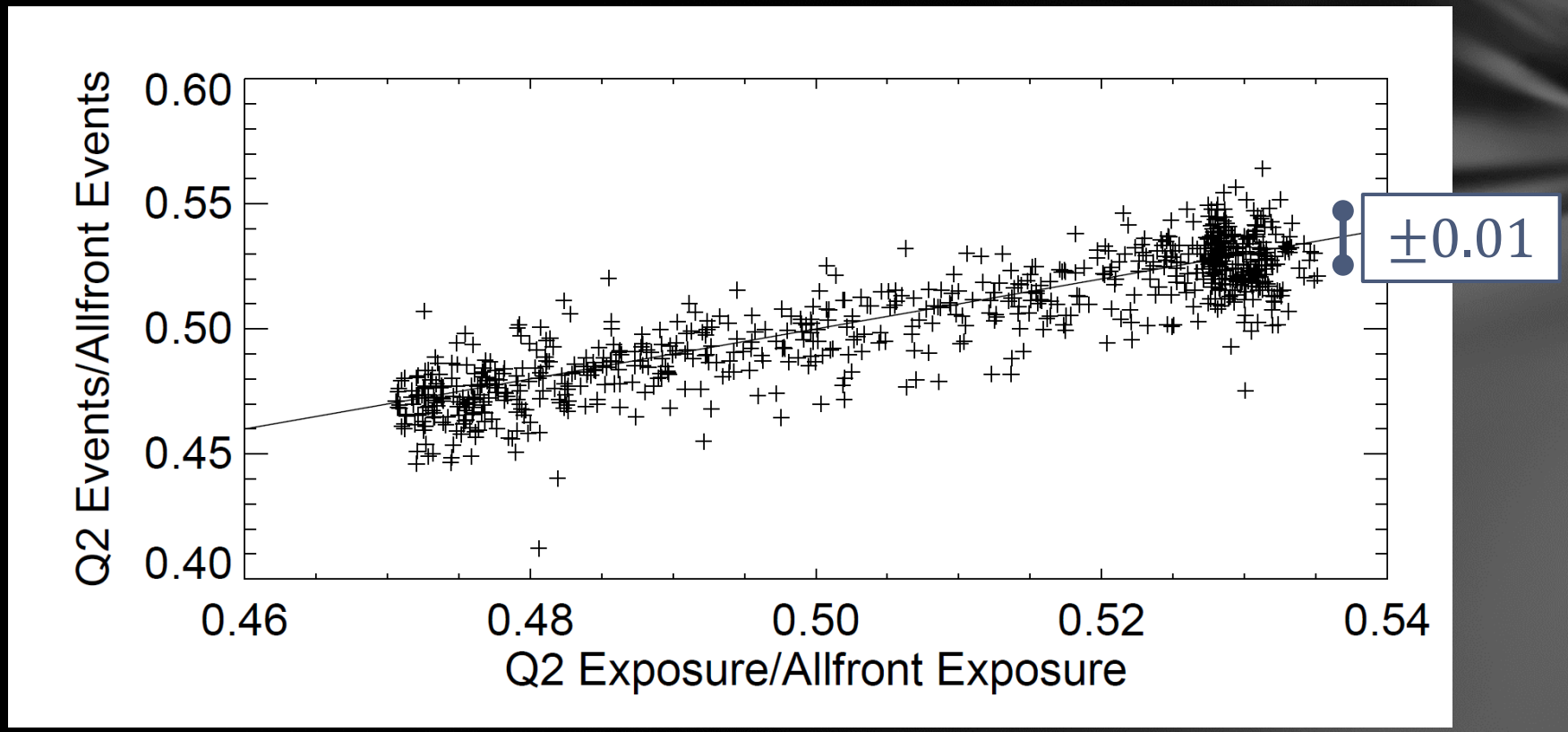
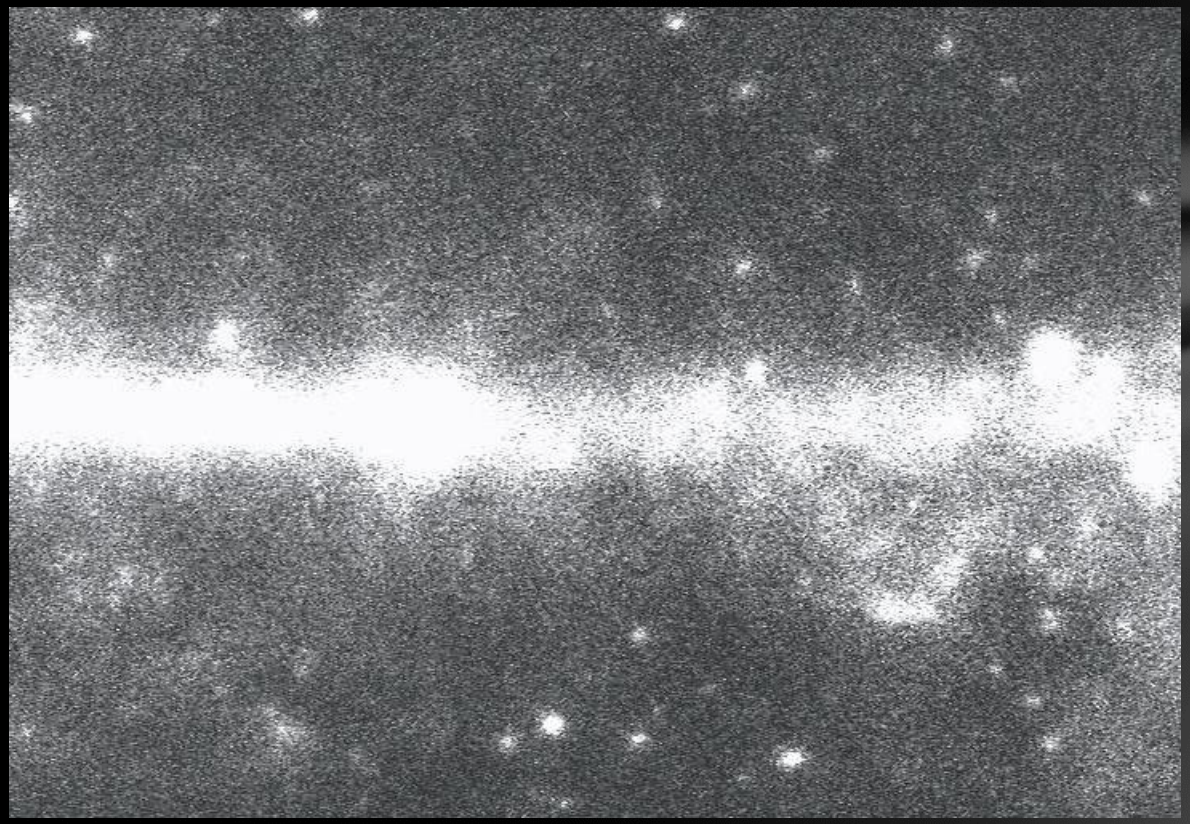
Effective Area, CLEAN (m²)



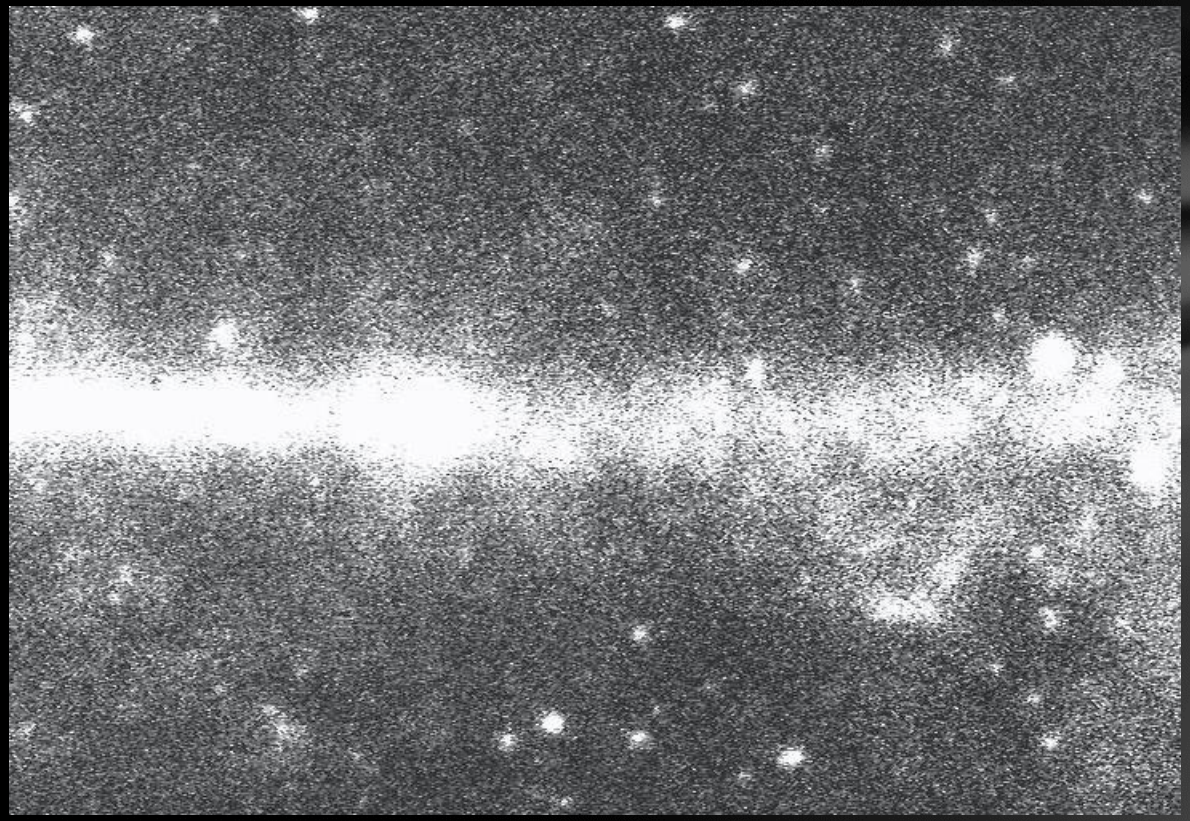
Effective Area Error Estimate



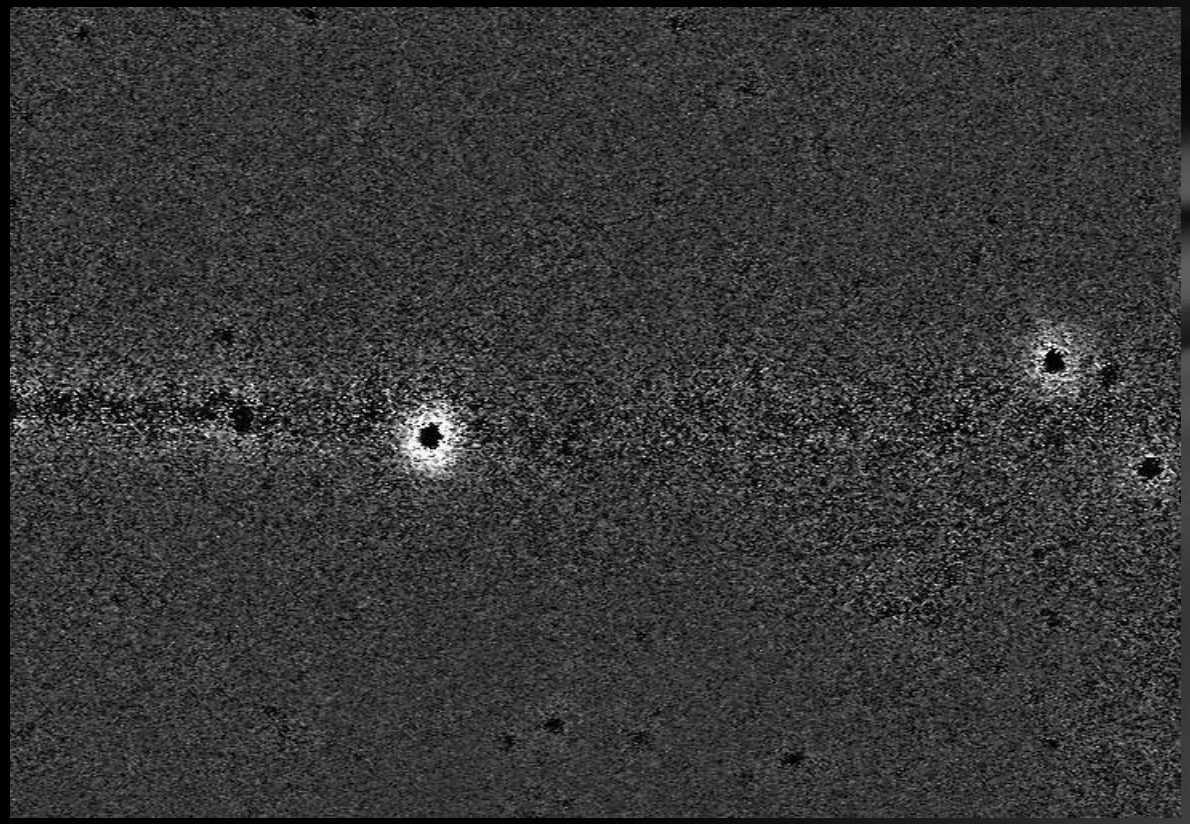
0.3-0.5 GeV, CLEAN, Allfront

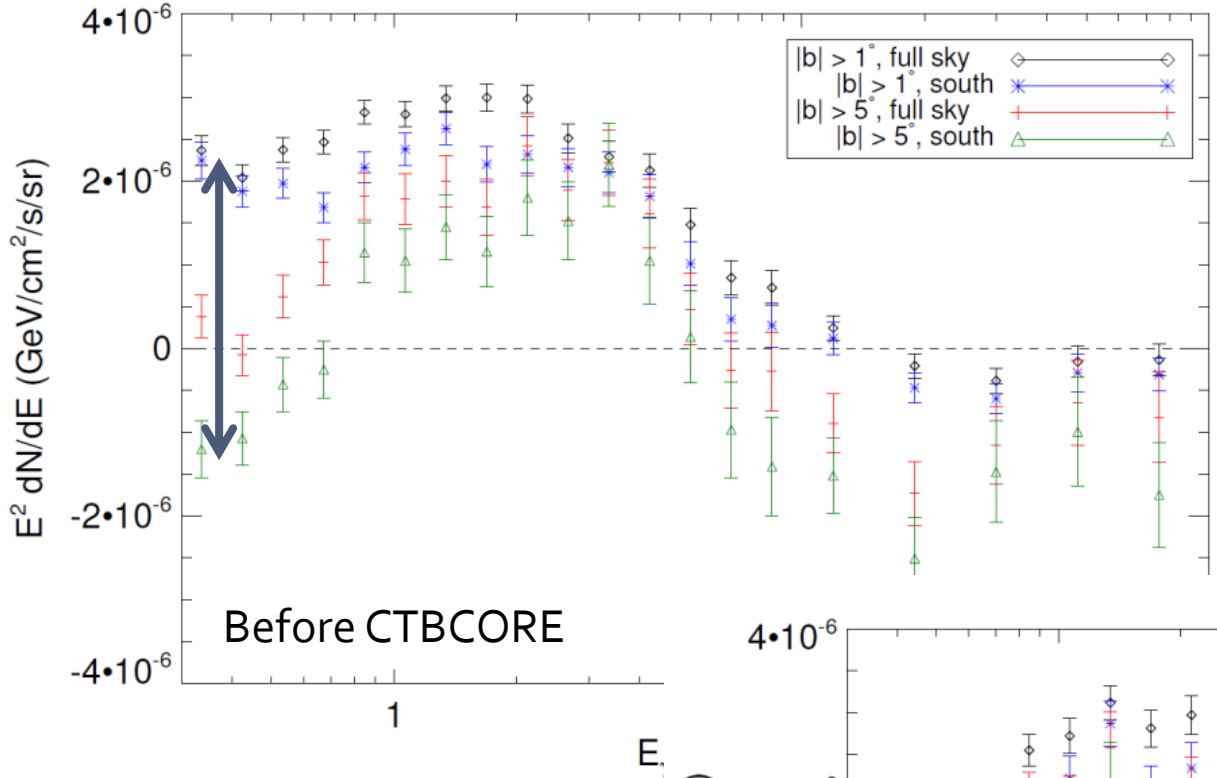


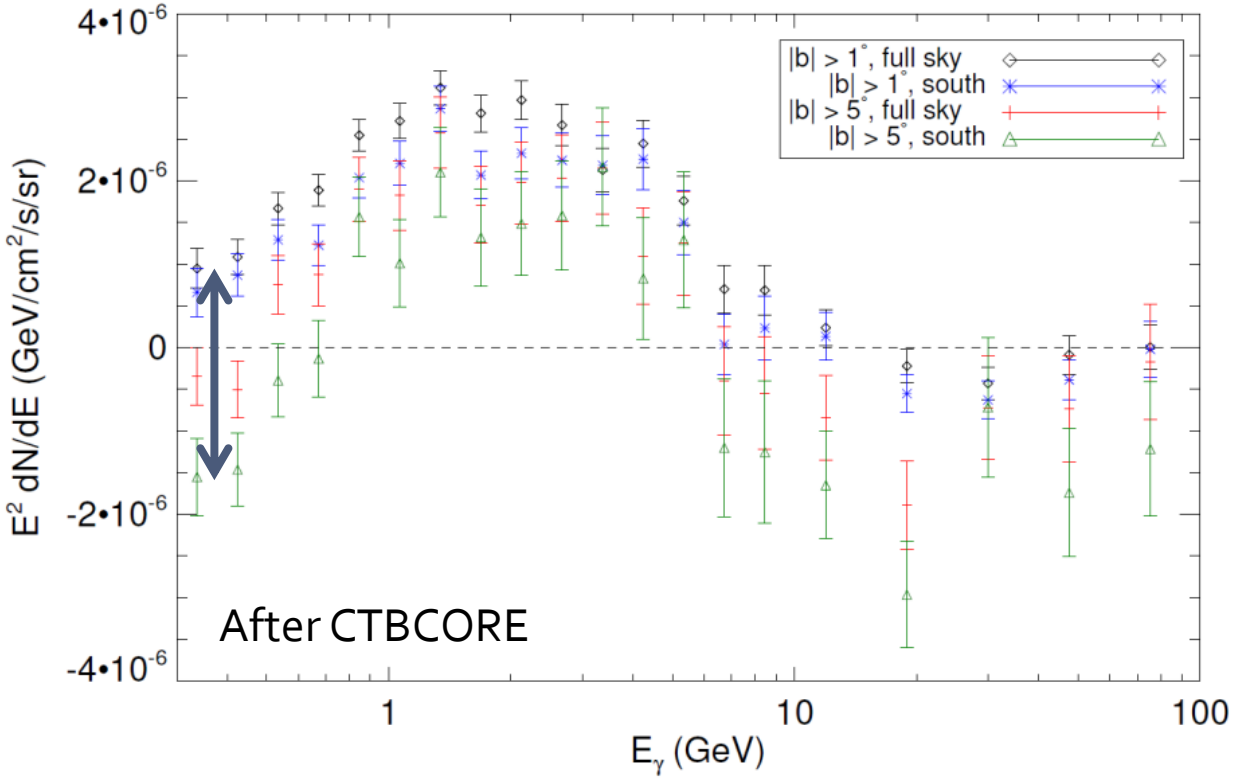
0.3-0.5 GeV, CLEAN, Q2



0.3-0.5 GeV, CLEAN, Allfront minus Q2

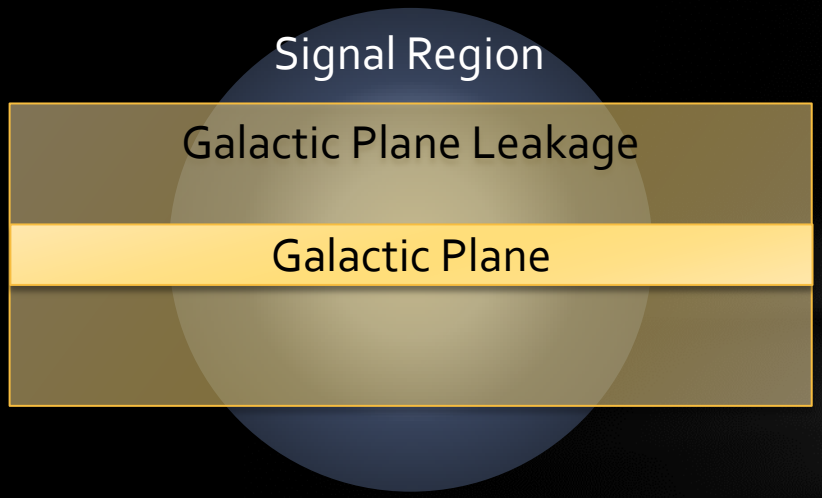


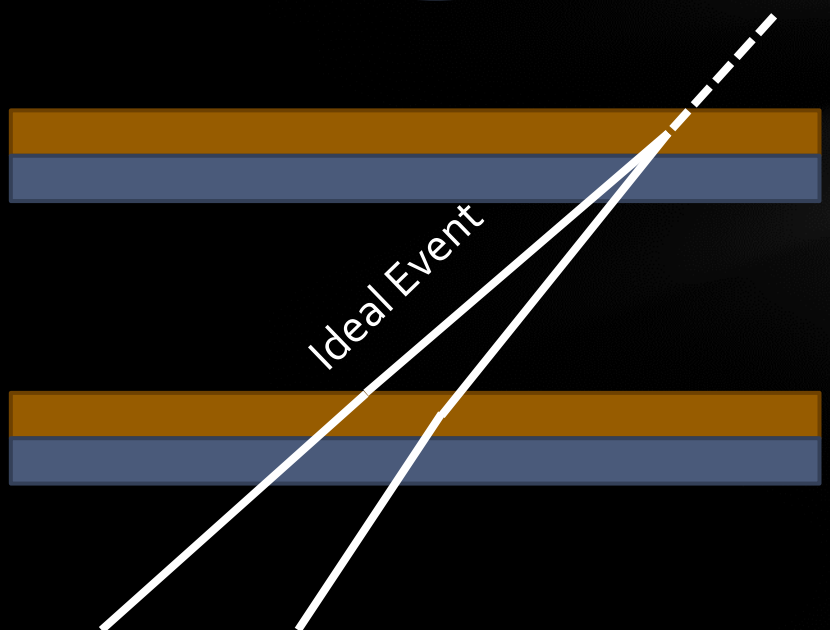




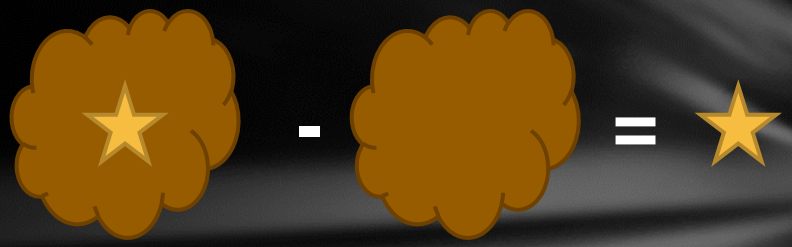
Daylan ***et al***. (2014), arXiv

Conclusion

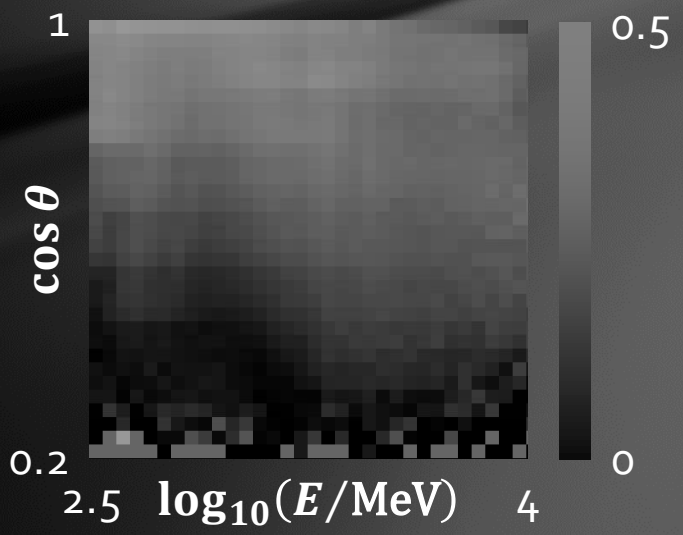




Point-Spread Function



Effective Area



Check out the maps + IRFs at http://fermi.skymaps.info/