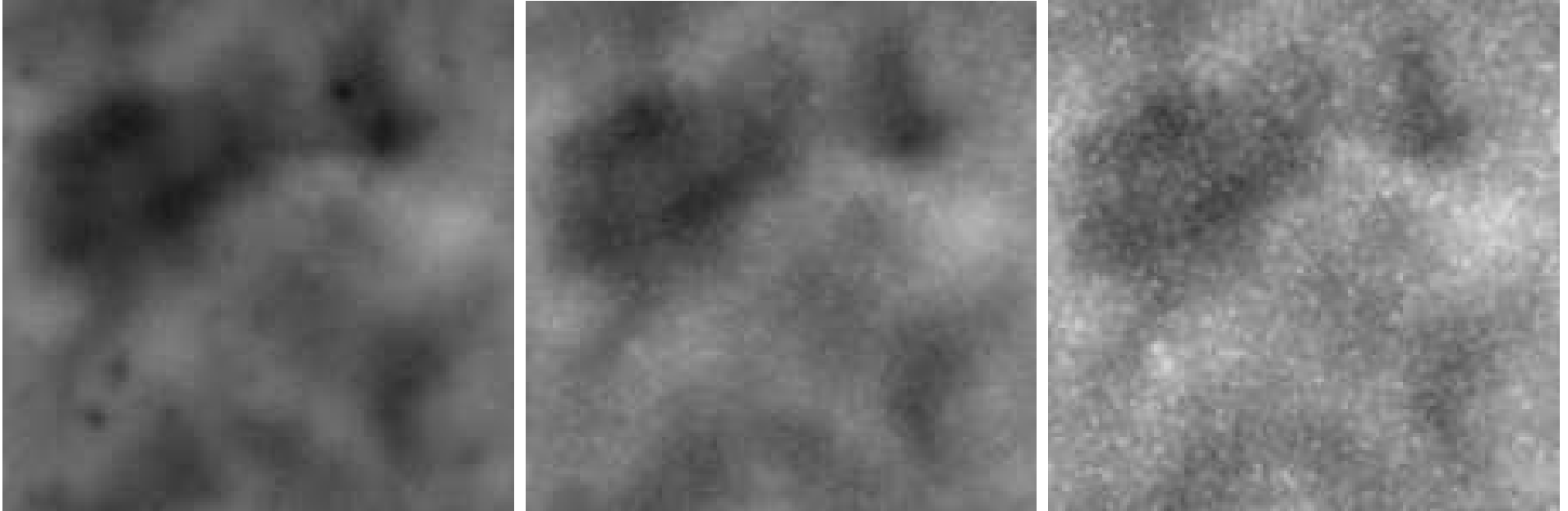


# Point source and atmosphere effects on tSZ science



*Kevin Huppenberger  
Florida State University*



# Setup

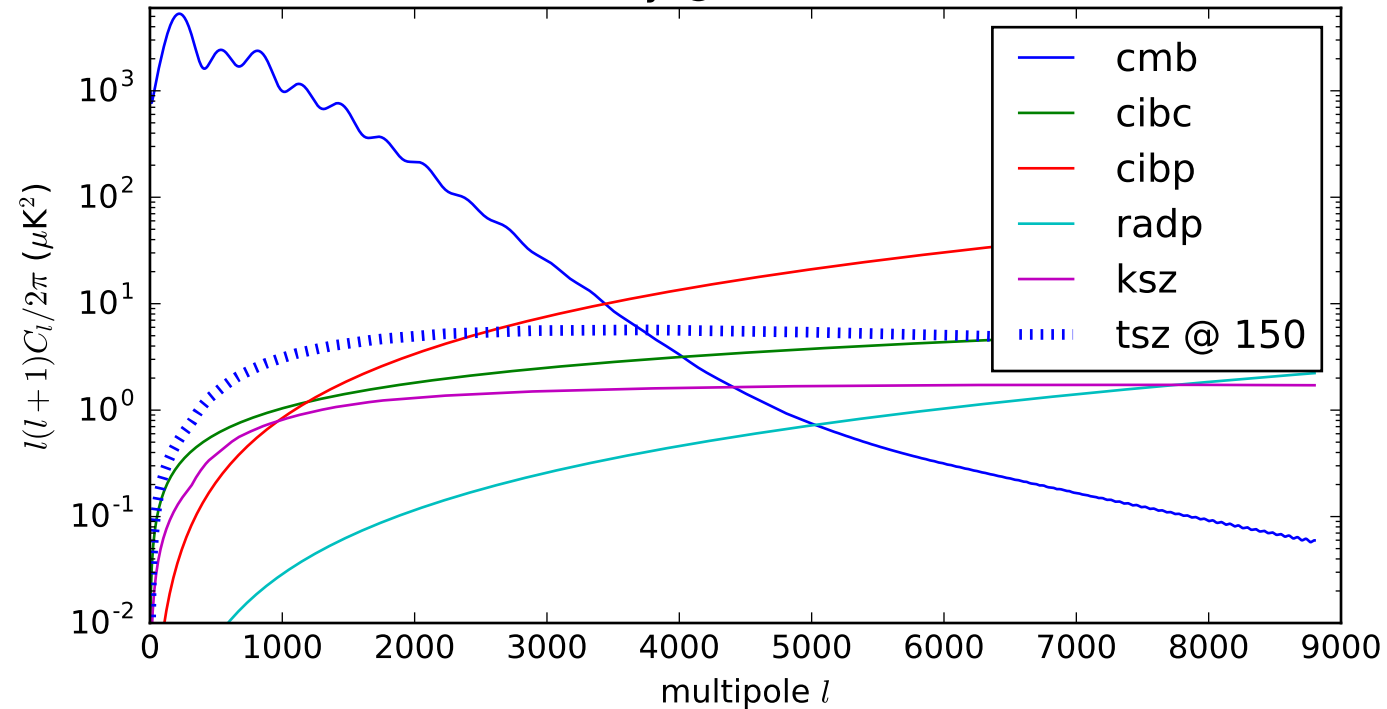
Predict ILC-multifrequency reconstruction of Compton- $\gamma$  power spectrum.

Fast... can run suites of instrument models.

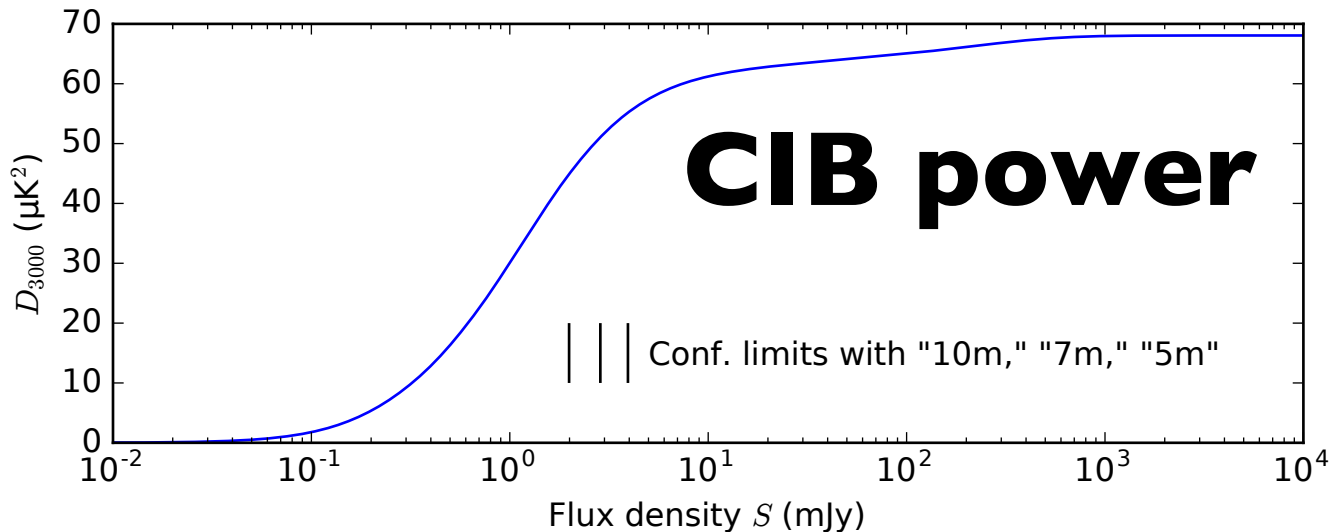
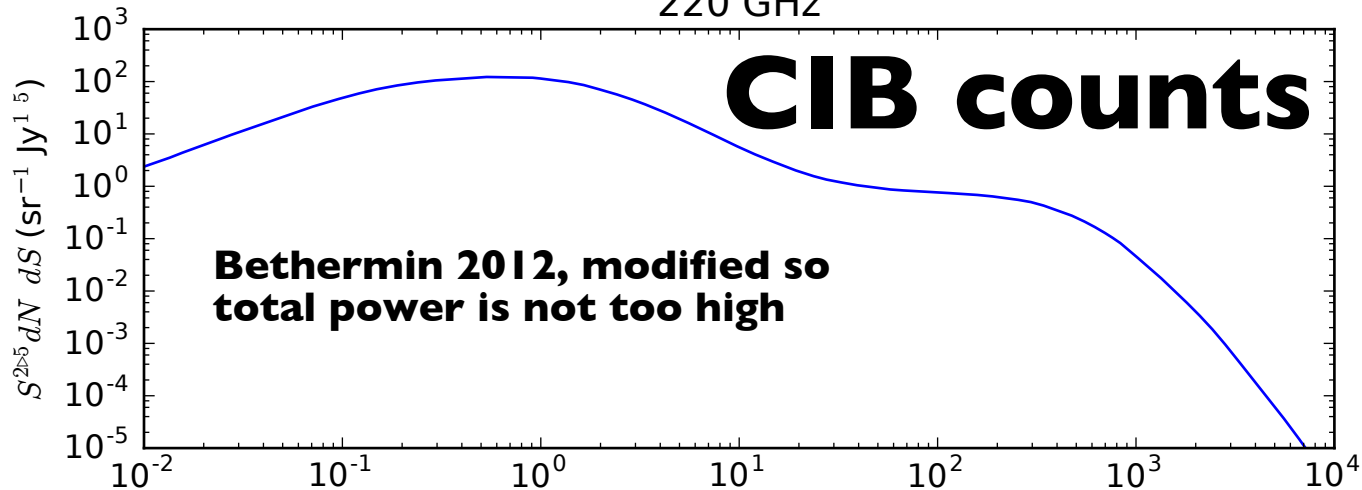
Multi-component sky model with tSZ, kSZ, CIB sources, Radio sources.

Source flux cuts computed self-consistently.

# Sky @ 150 GHz



220 GHz



# "7m" configuration

## channels (GHz)

*21.0 29.0 40.0 95.0 150.0 220.0 270.0*

## beam fwhm (arcmin)

*9.0 6.5 4.7 2.0 1.3 0.9 0.7*

## channel map noise (mK-arcmin)

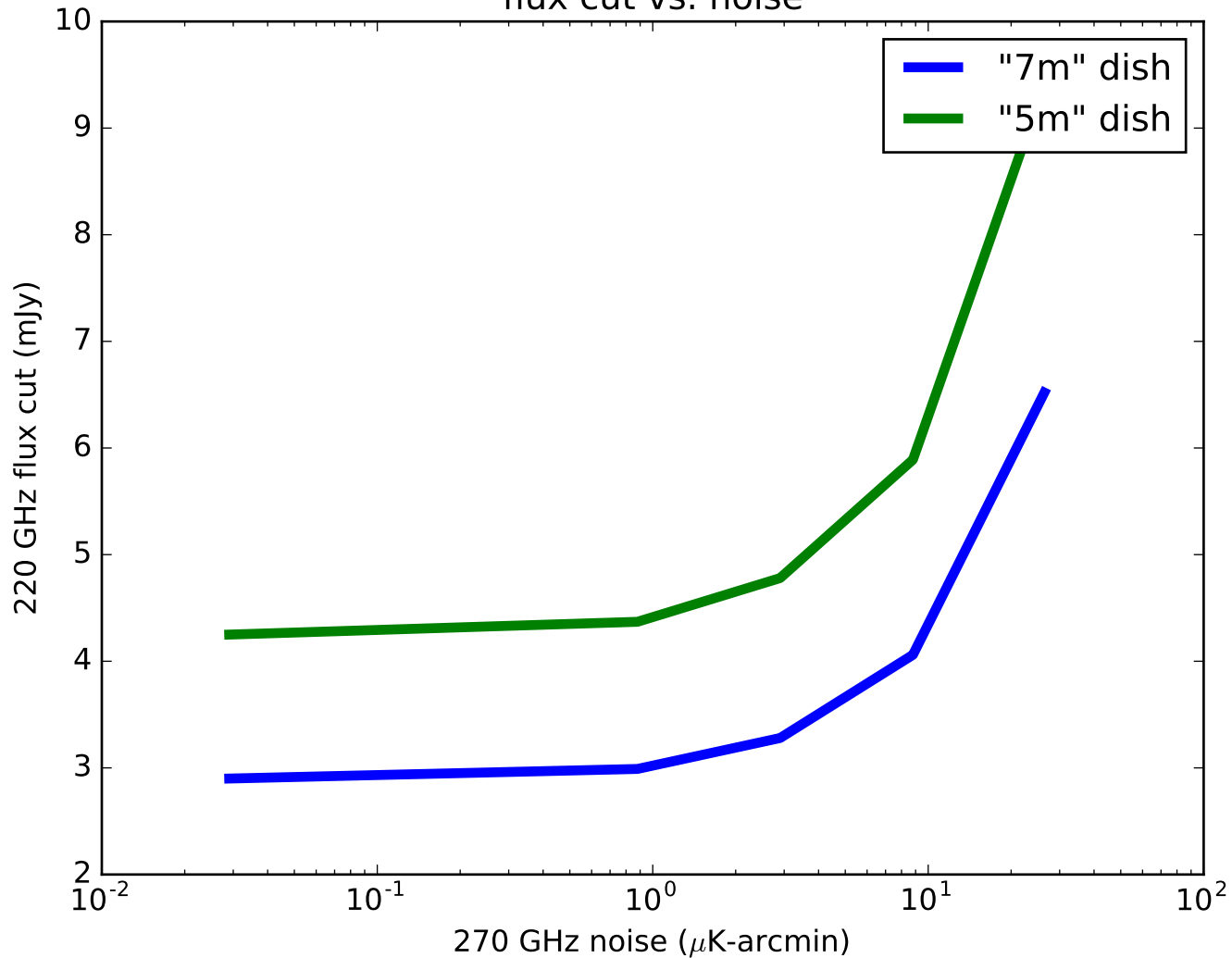
*17.4 12.3 12.0 3.3 3.5 11.5 19.7*

**effective map noise** = *2.25 mK-arcmin*

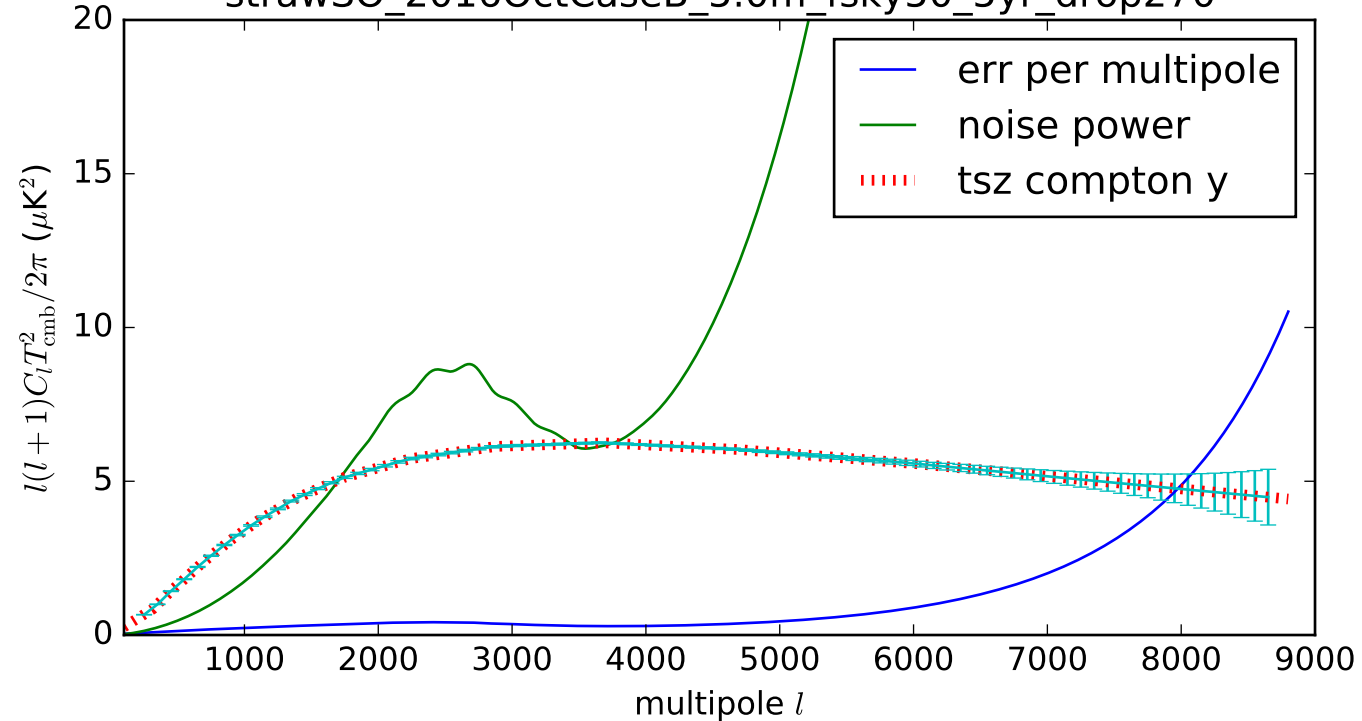
**fsky** = *0.50*

**optional atmosphere:** *cf Hasselfield*

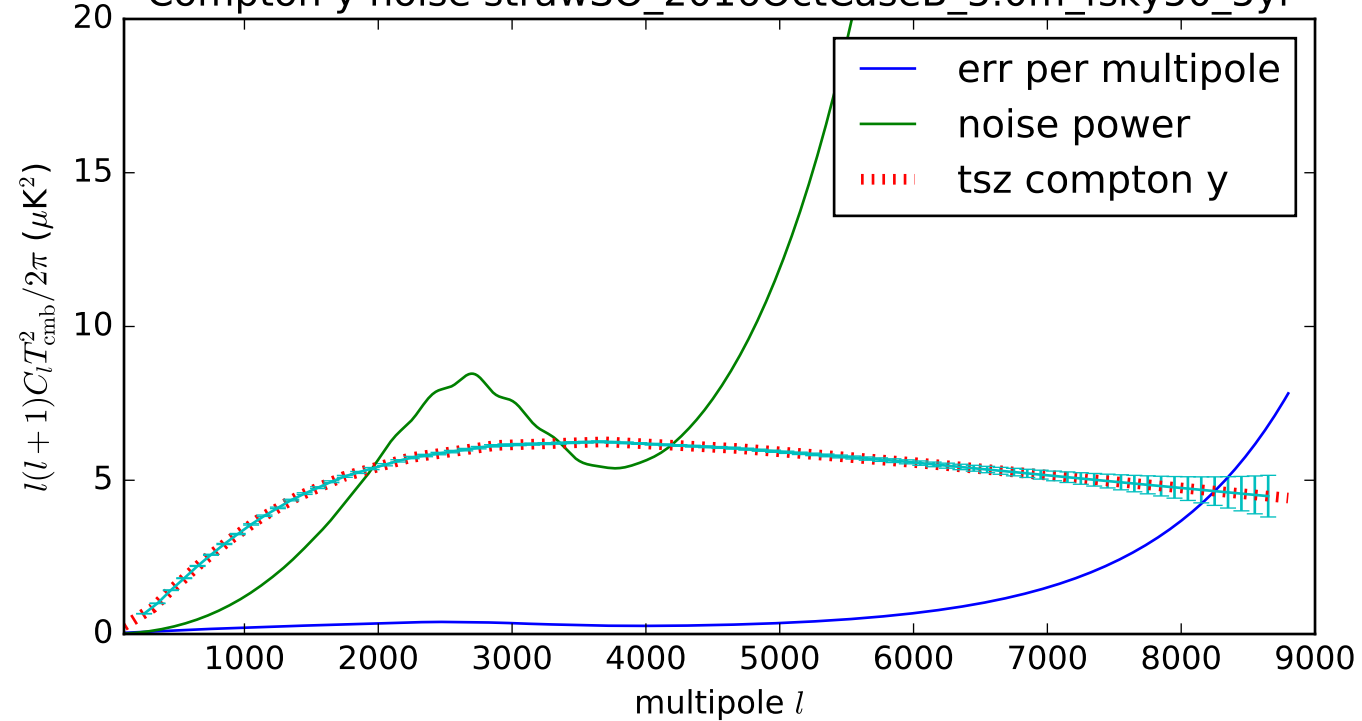
flux cut vs. noise



strawSO\_2016OctCaseB\_5.0m\_fsky50\_5yr\_drop270

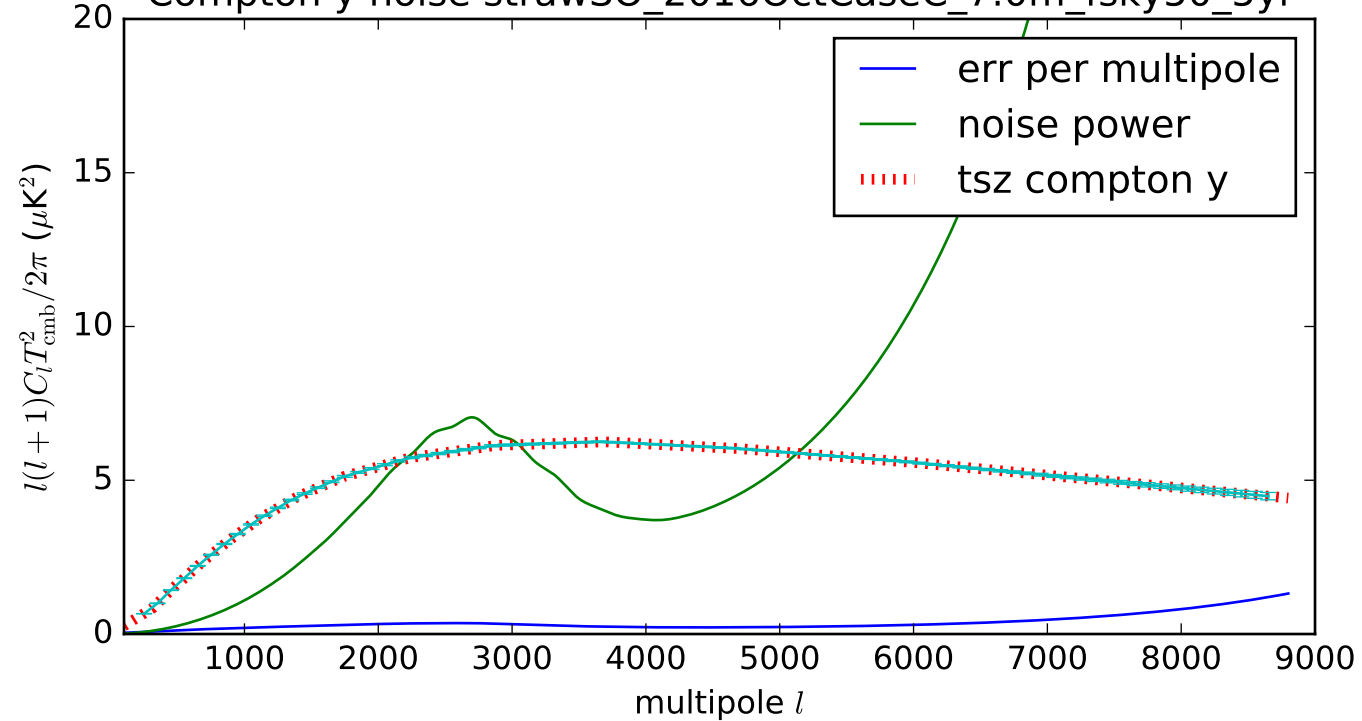


Compton y noise strawSO\_2016OctCaseB\_5.0m\_fsky50\_5yr





Compton y noise strawSO\_2016OctCaseC\_7.0m\_fsky50\_5yr



strawSO\_2016OctCaseC\_7.0m\_fsky50\_5yr\_atmsimple

