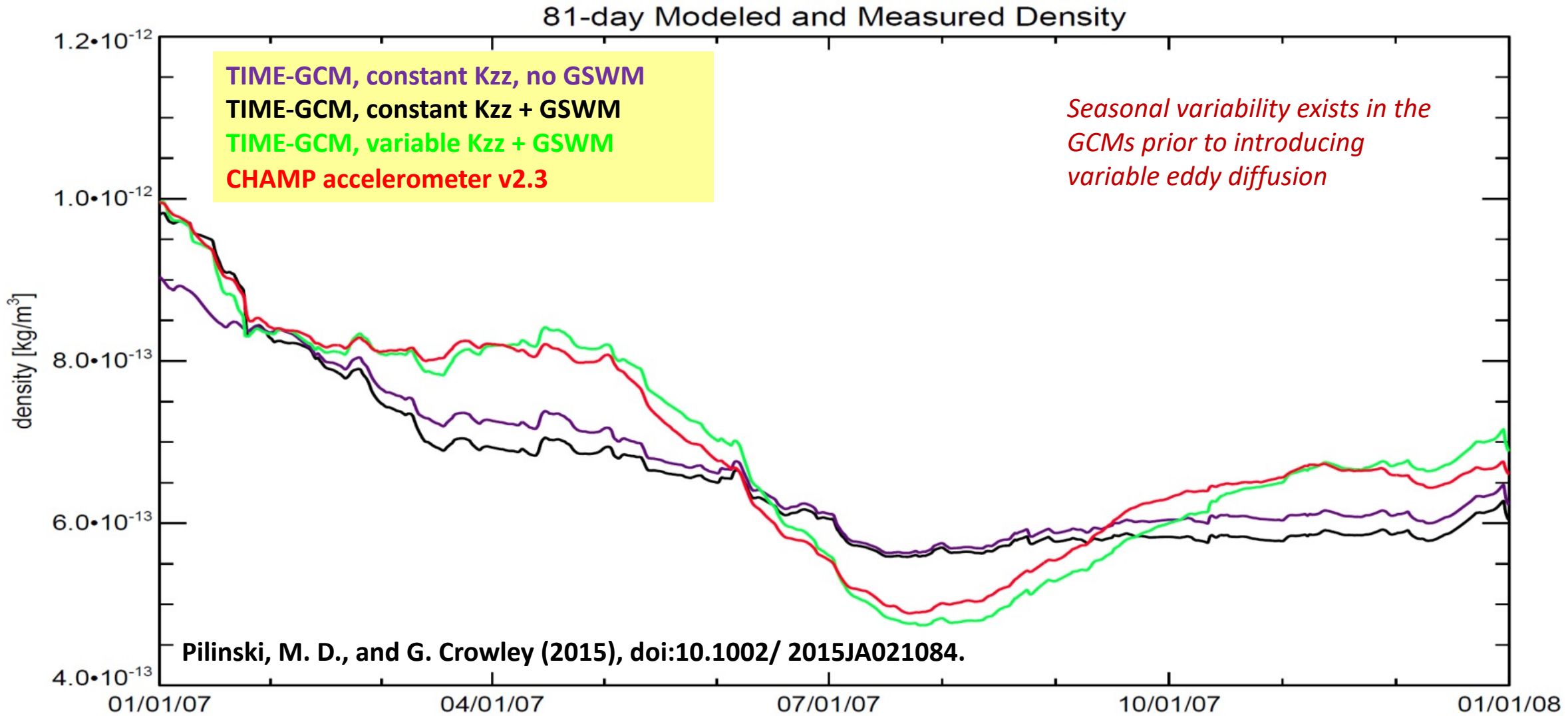


Notes on Eddy Diffusion Tuning in TIME-GCM

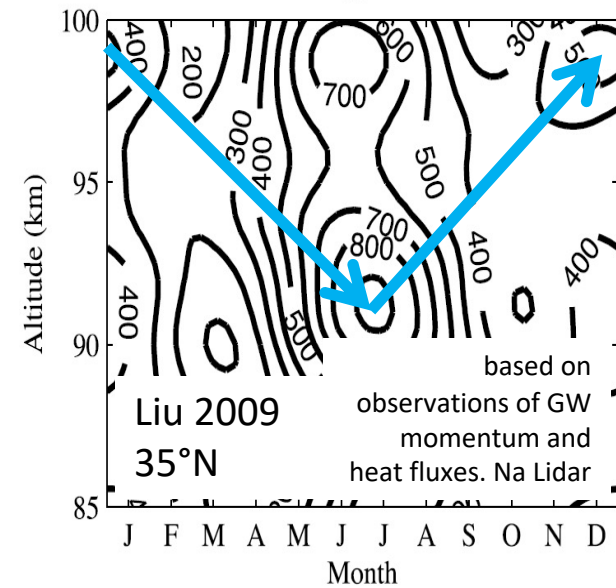
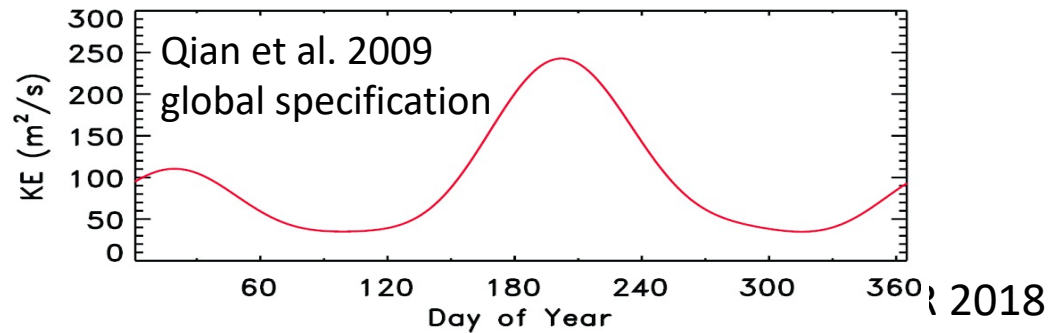
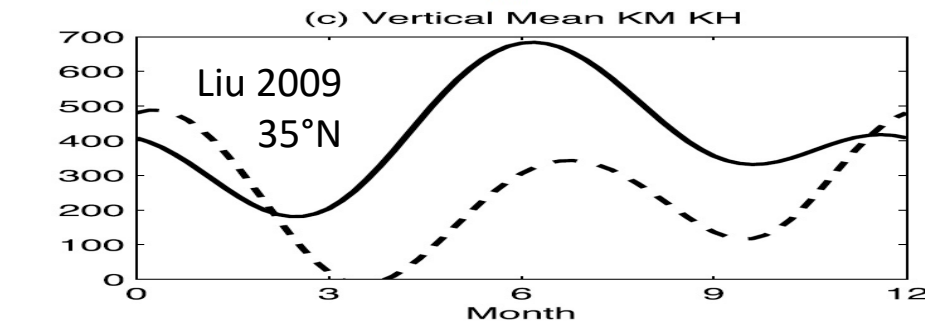
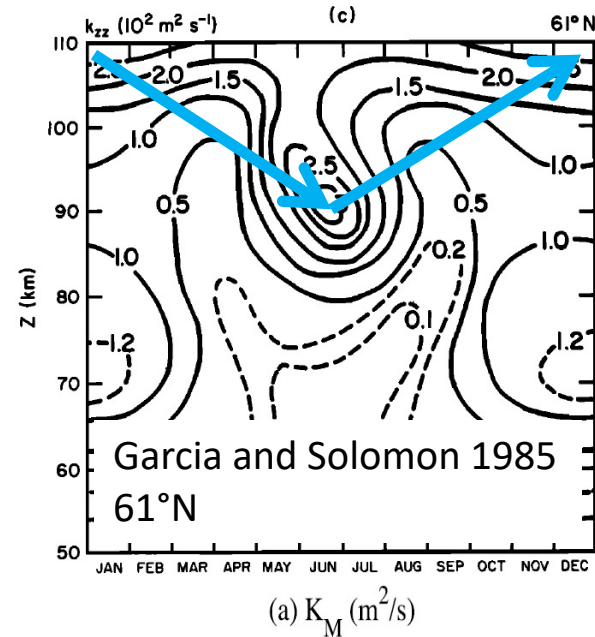
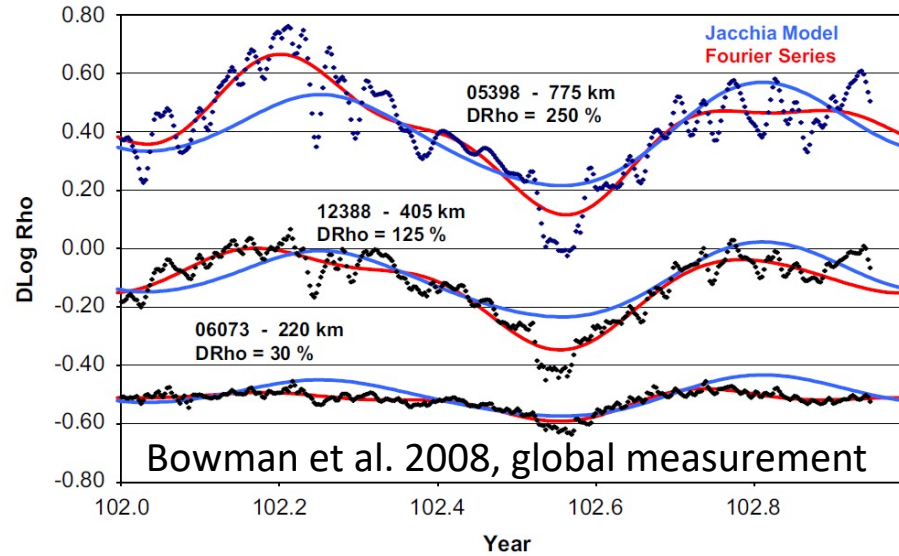


- Kzz tuning in TIME-GCM (2015, 5x5 resolution), Pilinski and Crowley, 2015
 - Work originally done at ASTRA
- Not suggesting that “Kzz” is the cause of the entire “seasonal” variation in the thermosphere
- However, it probably contributes to some extent
 - More to annual signal than SAO
- Kzz estimates parametrize the effect of several phenomena
- They are different depending on where (latitude, altitude) you measure them

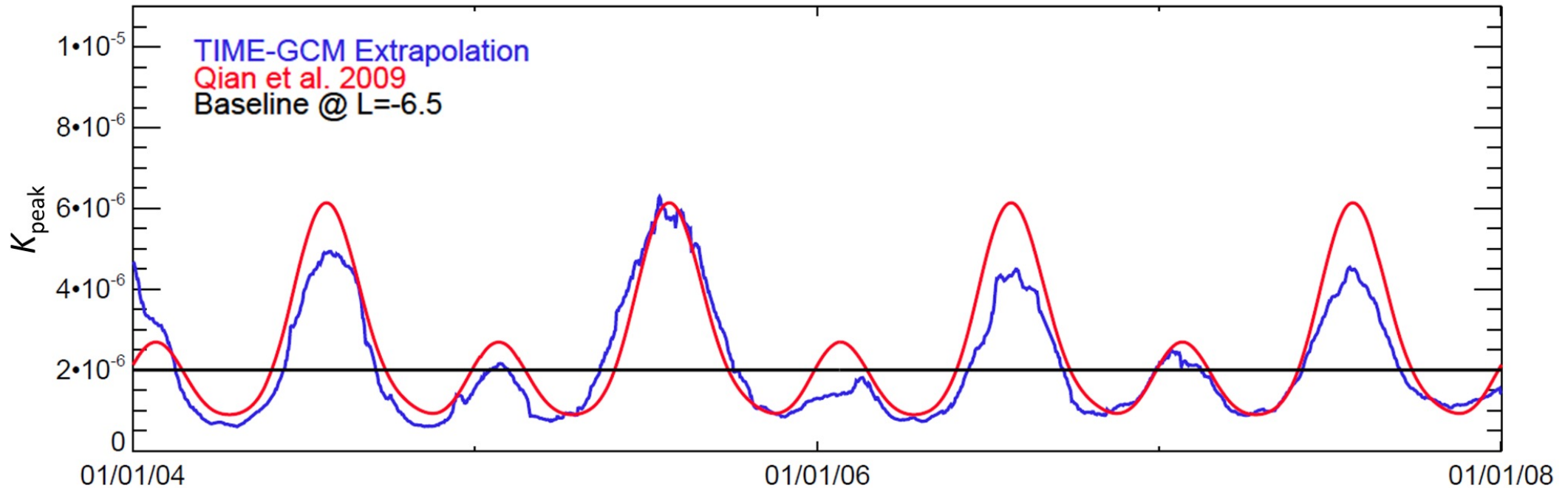
Notes on Eddy Diffusion Tuning in TIME-GCM



Background

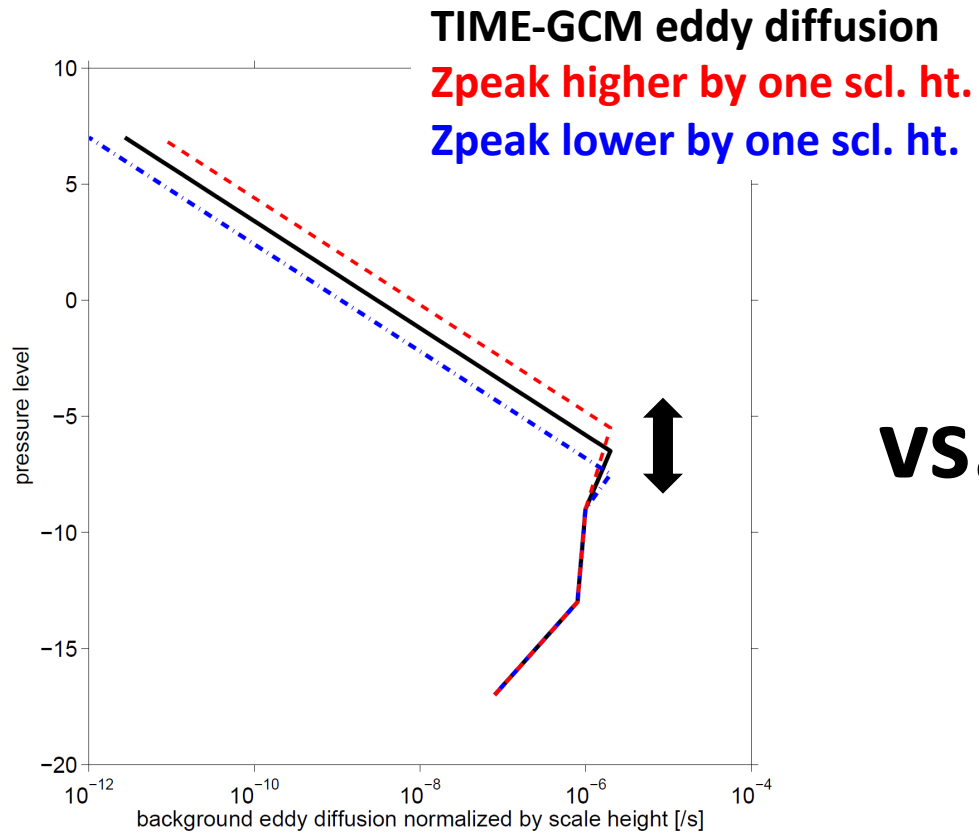


The tuning needed is not the same from year to year

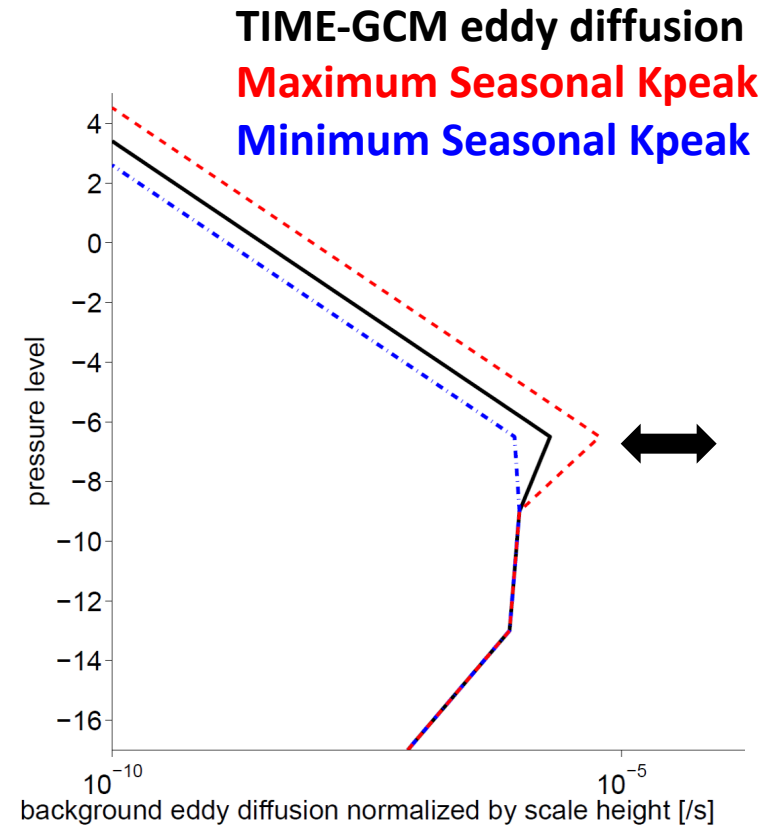


Pilinski, M. D., and G. Crowley (2015), doi:10.1002/ 2015JA021084.

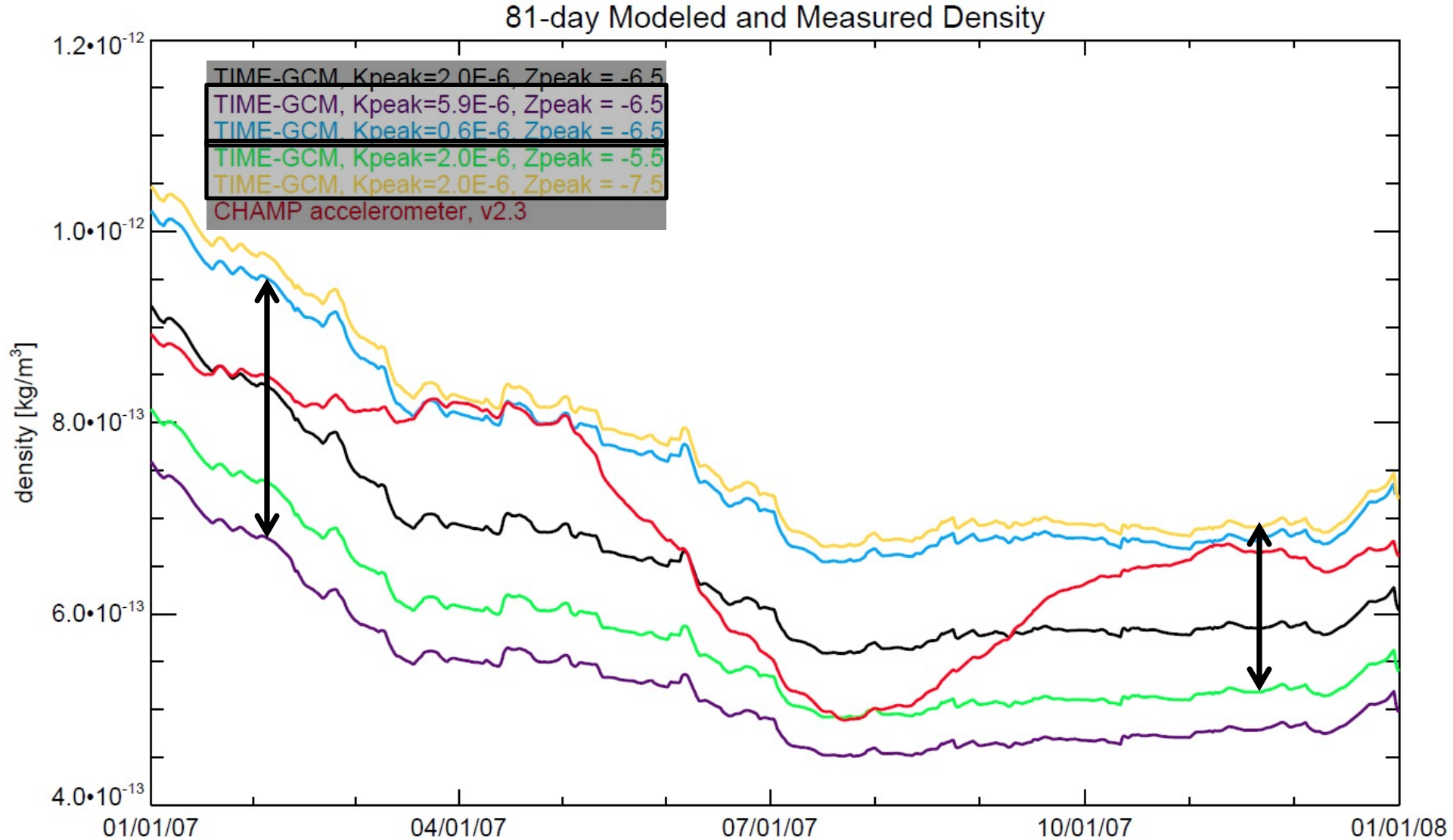
Sensitivity to tuning method



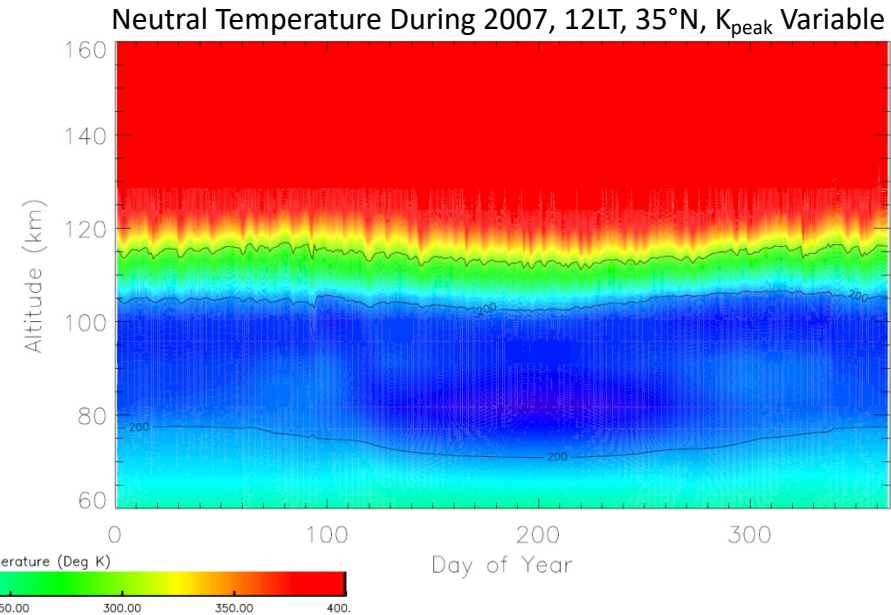
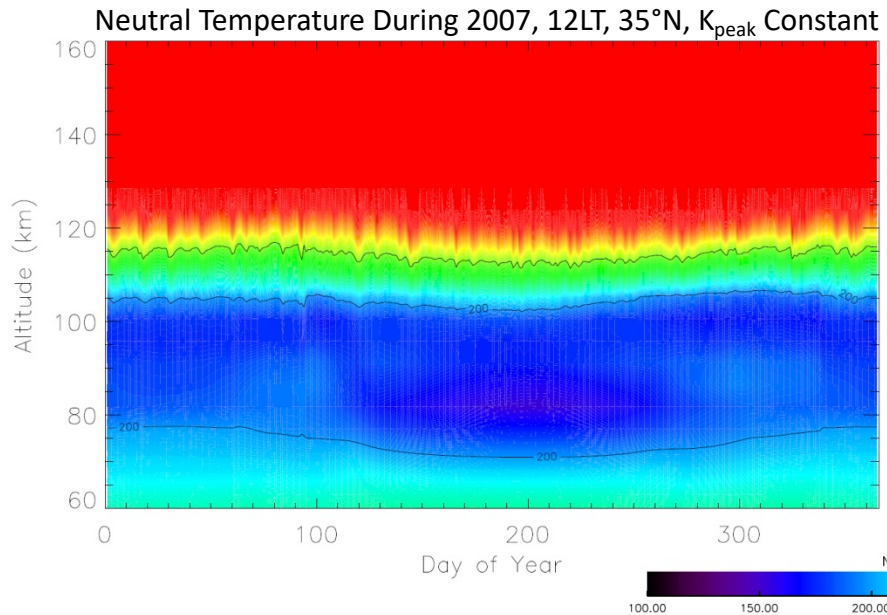
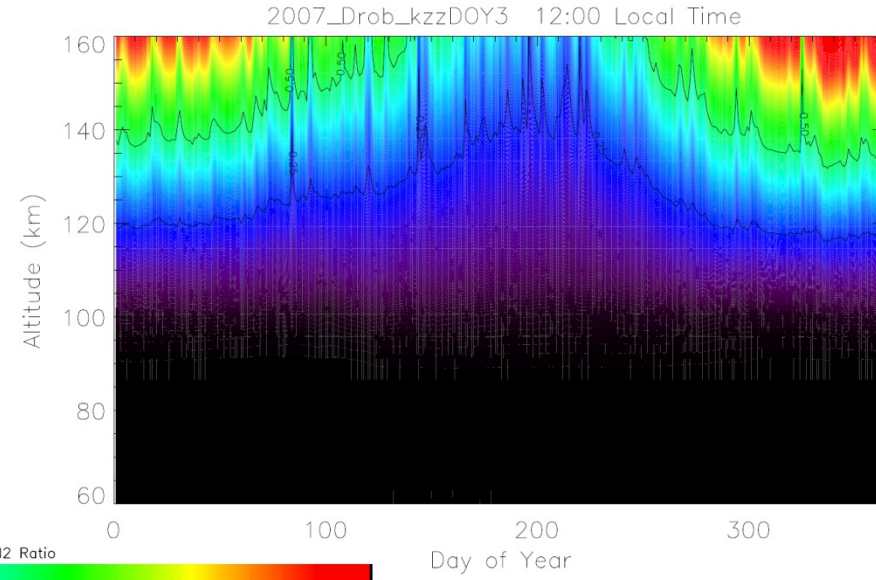
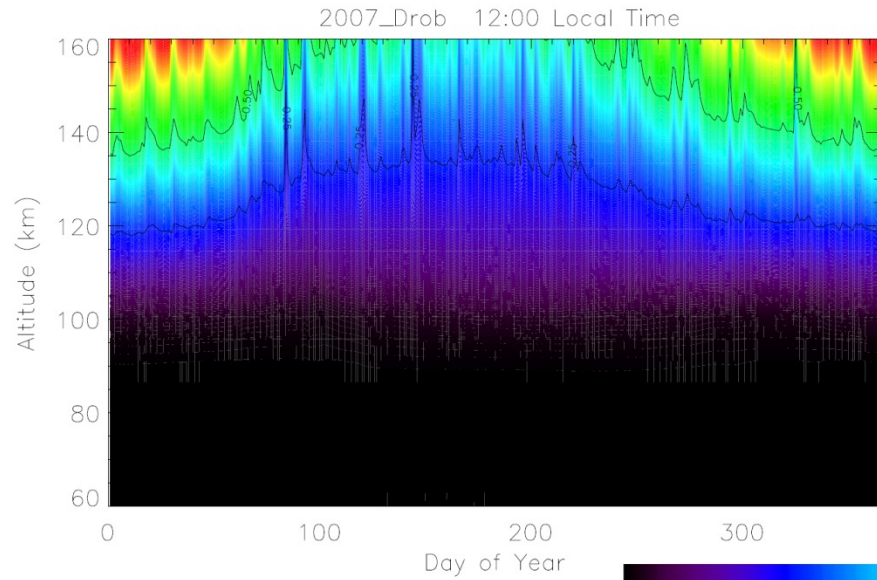
vs.



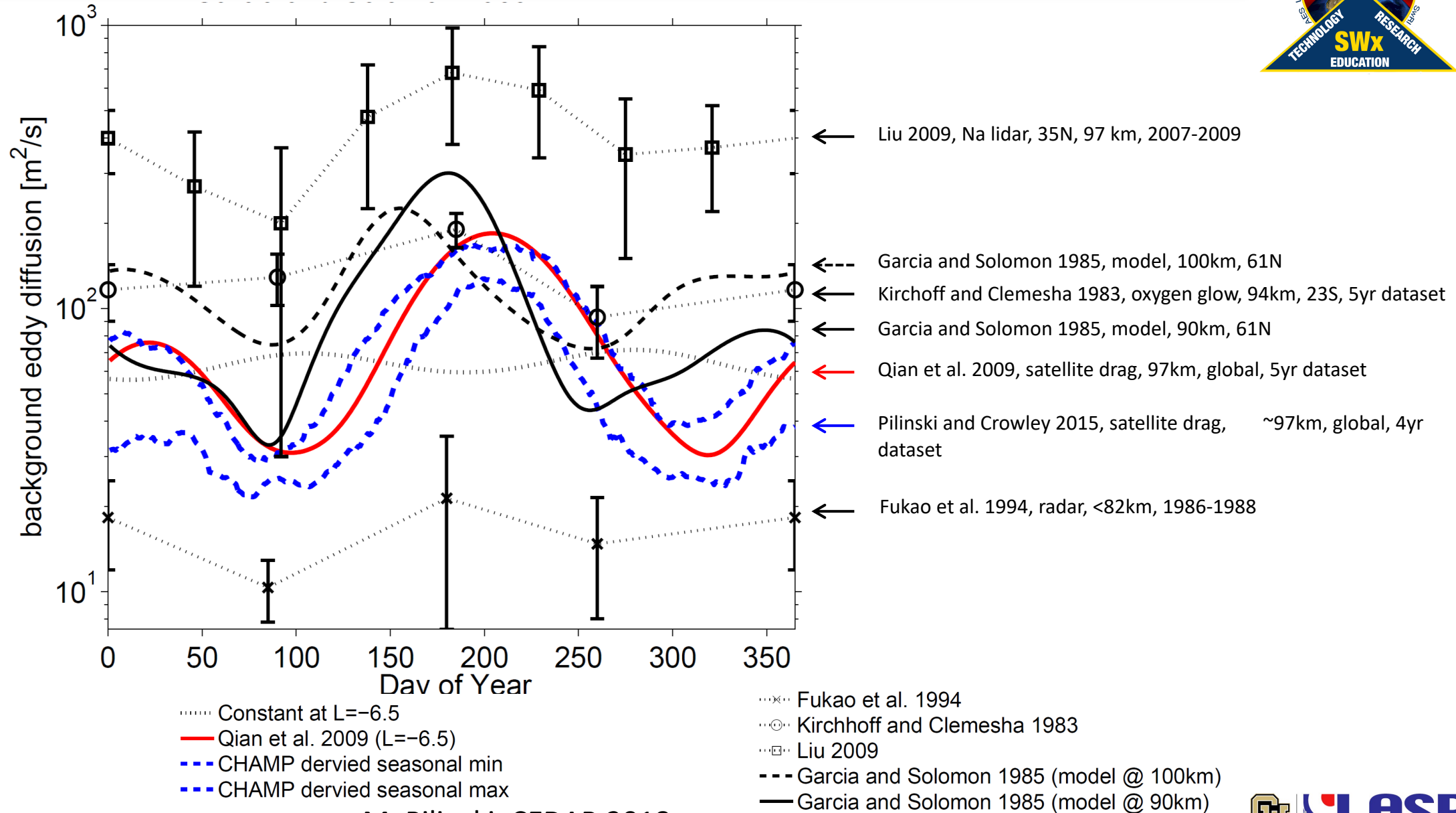
Sensitivity to tuning method



Composition and Temperature



Comparing with Other Results (Apples to Apples?)



M. Pilinski, CEDAR 2018