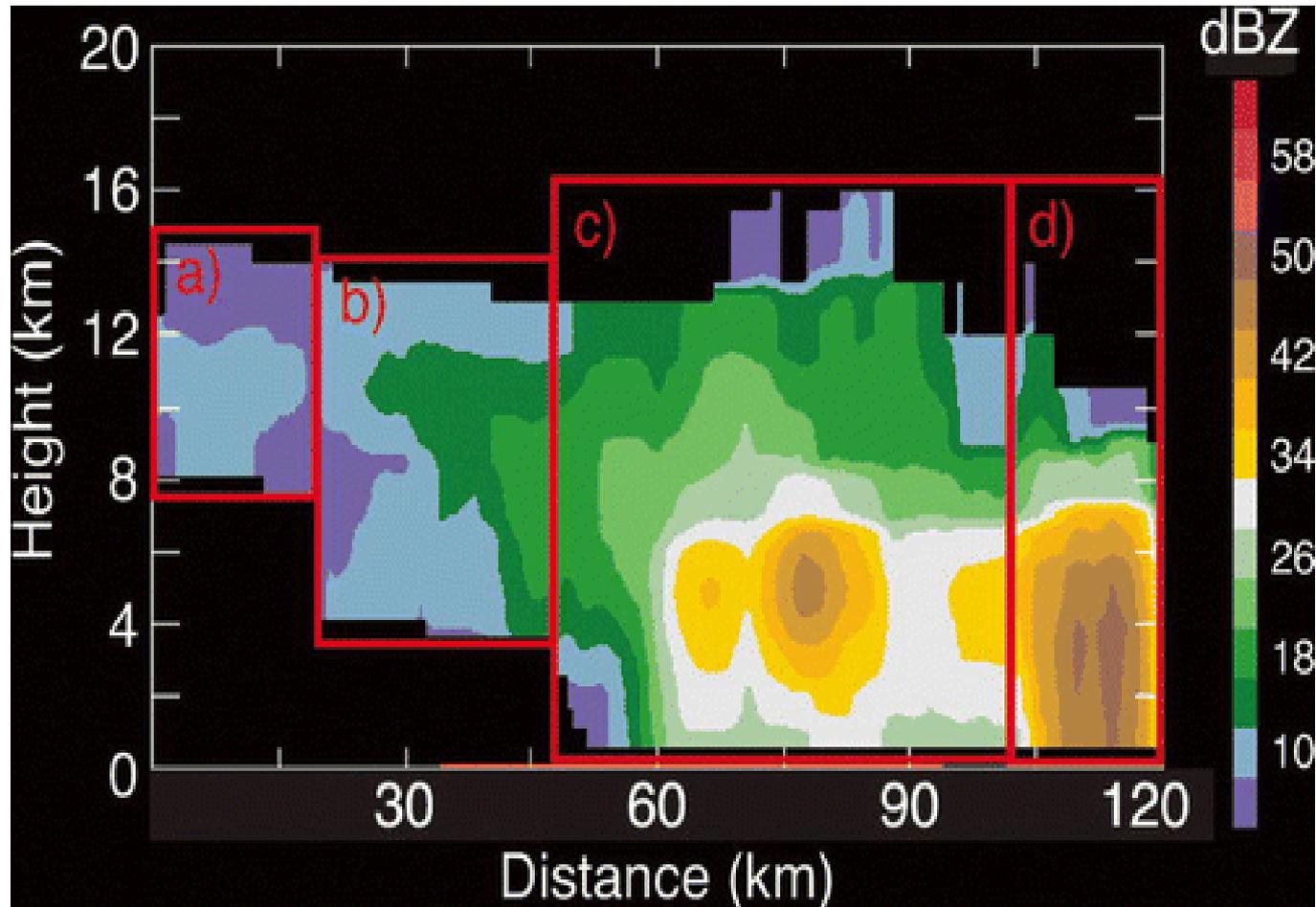


# Separation between stratiform and convective precipitation in observations and GCMs

Yanluan Lin and Leo Donner (GFDL)

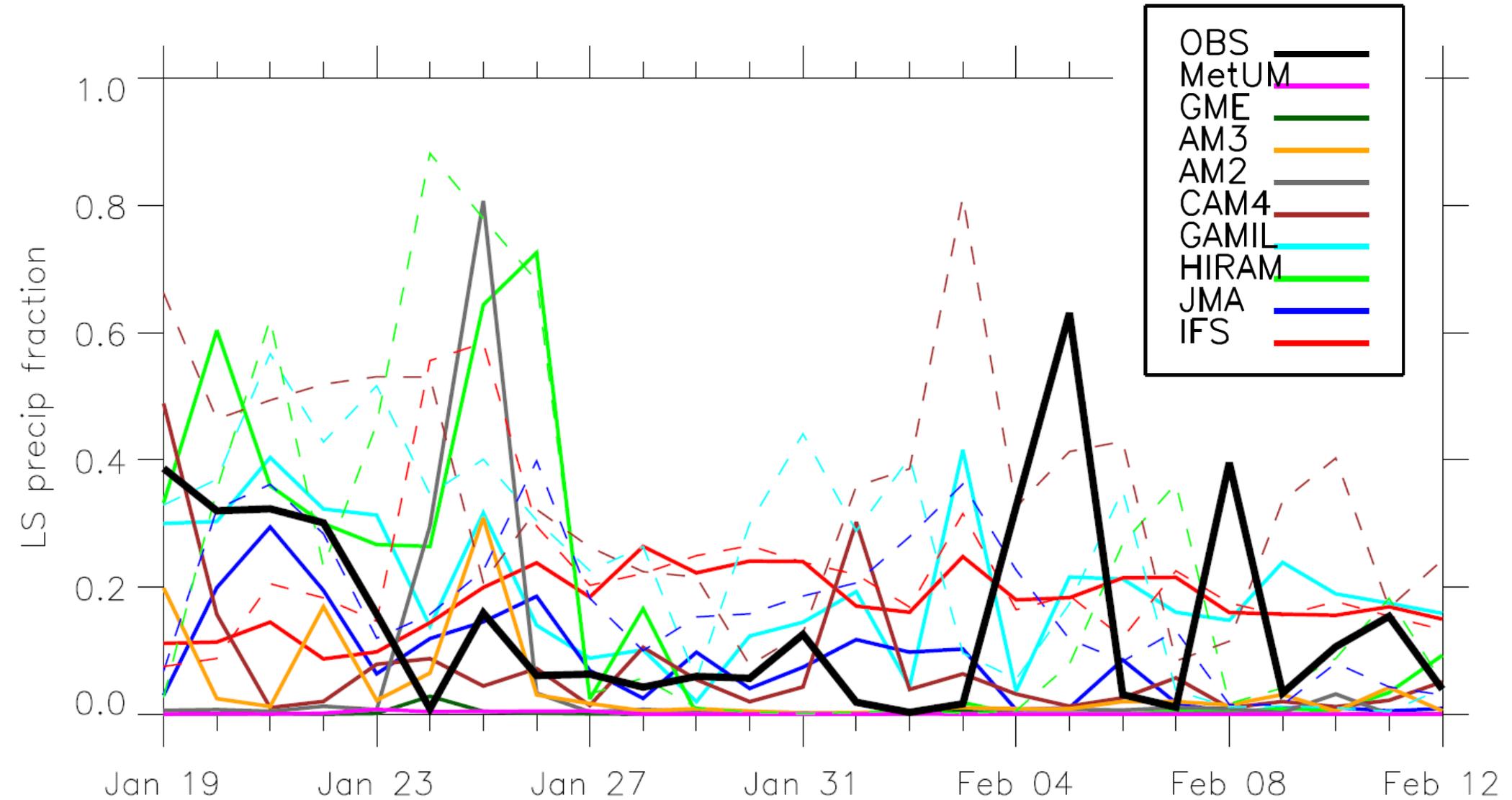
ASR meeting, 2011

# Vertical C-POL cross section at 1800 UTC 31 Jan 2006

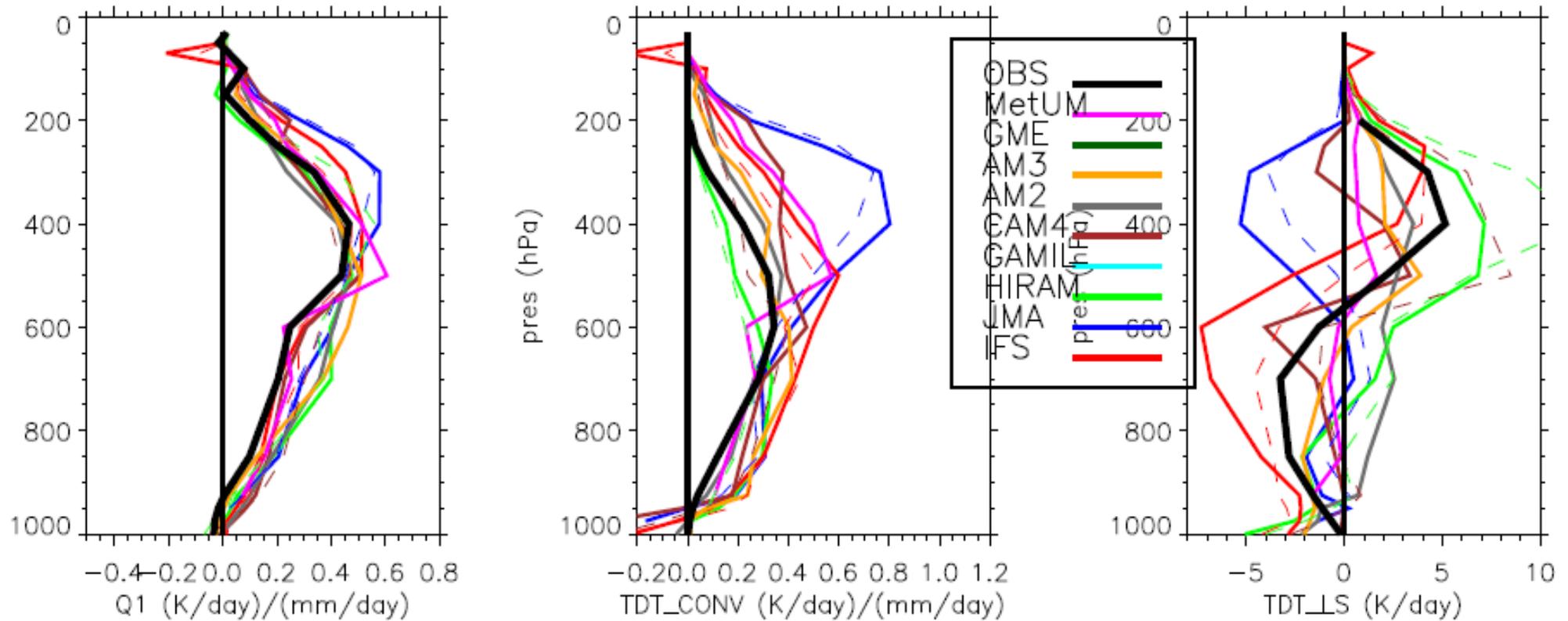


(Frederick and Schumacher, 2008)

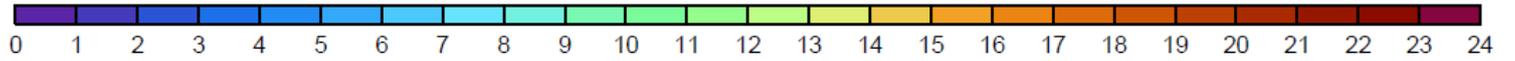
# LS precip fraction in TWP-ICE



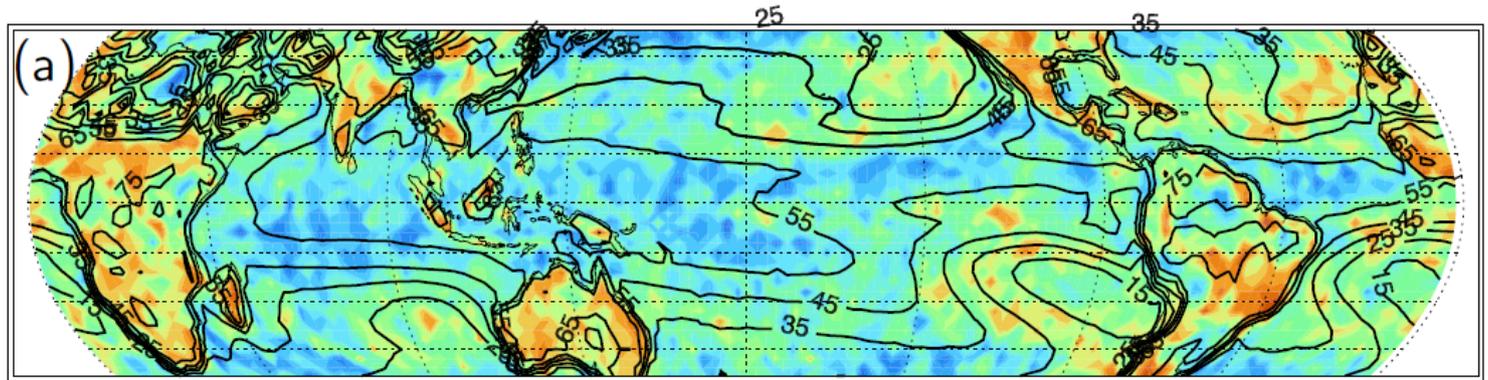
# Vertical heating structures during the wet period of TWP-ICE



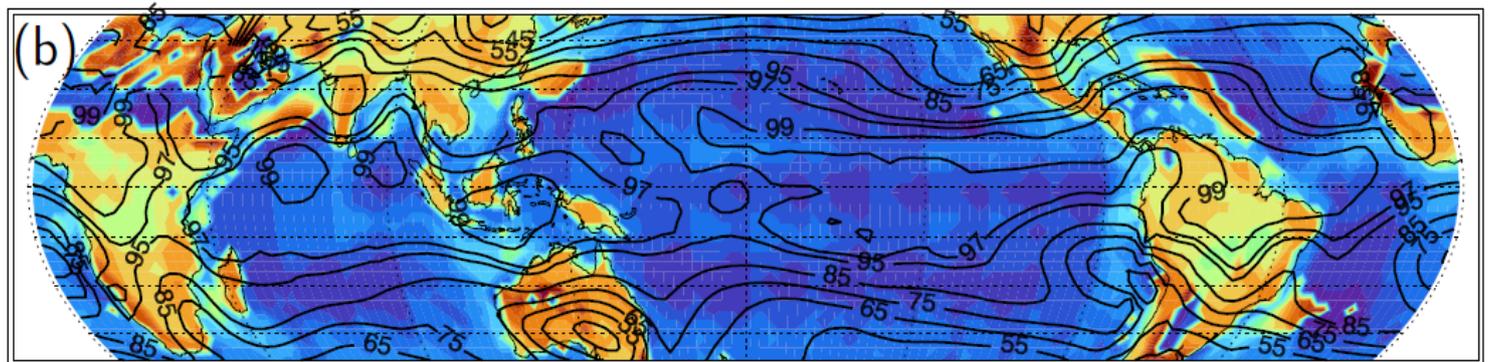
time (LST)



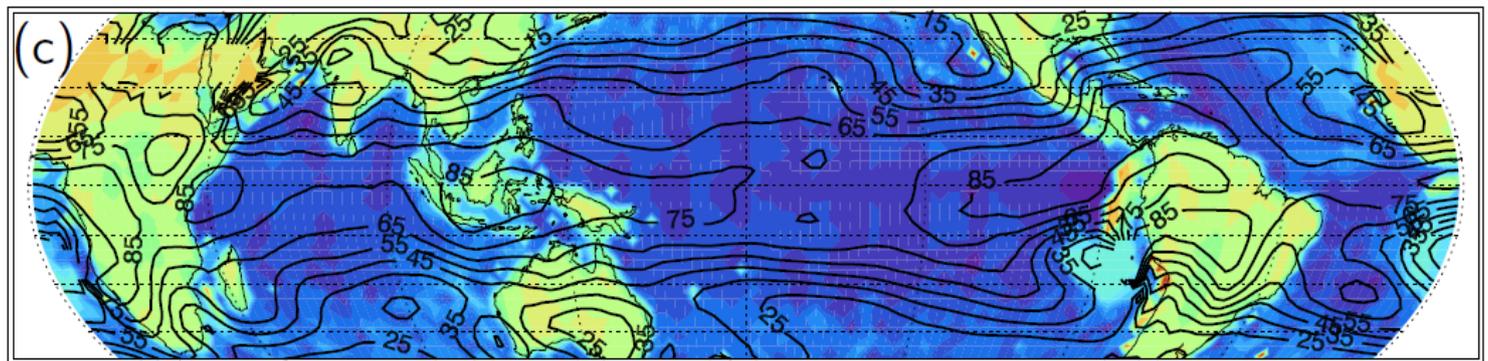
TRMM 3G68



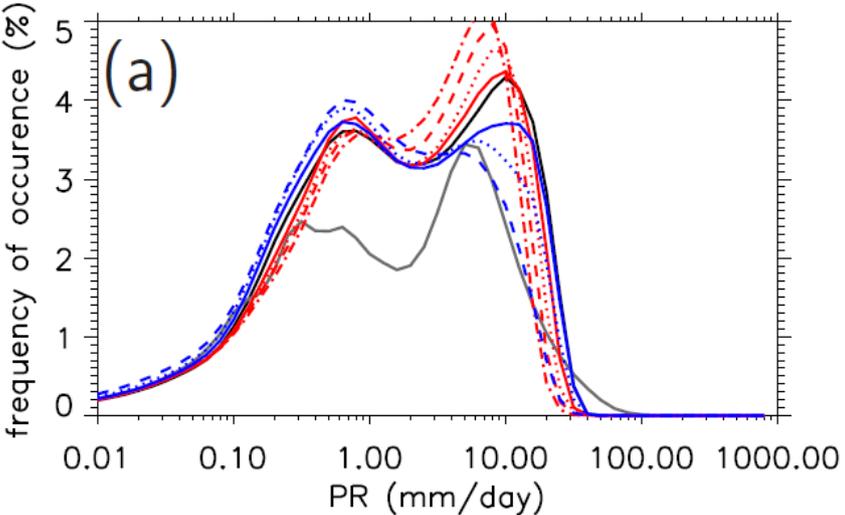
AM2 with  
RAS



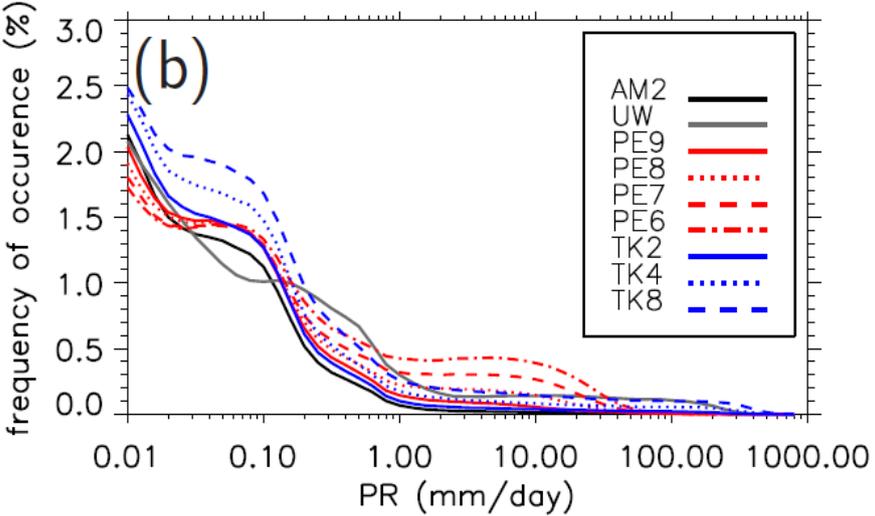
AM2 with UW  
Convection  
scheme



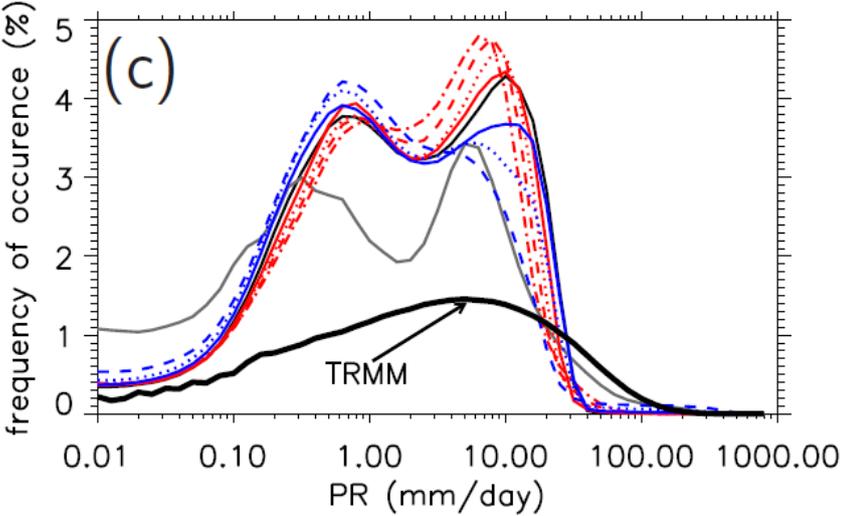
convective



large-scale



total



# Points to note:

1. Conceptually, strati/conv precip partitioning is different in OBS and model.
2. Model precip separation is sensitive to cumulus parameterization.
3. Strati/conv precip partitioning impact vertical heating structure, precip diurnal cycle, and precip intensity distribution.