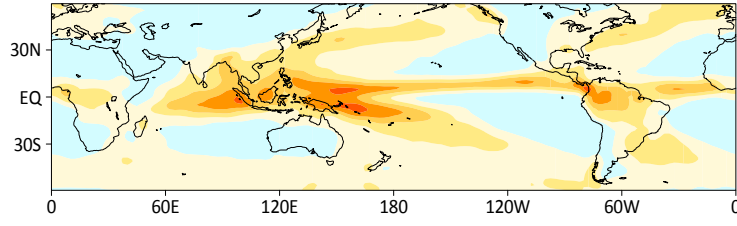# Annual Mean Precipitation (1998-2007)
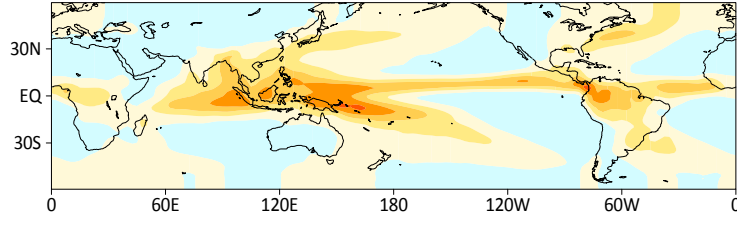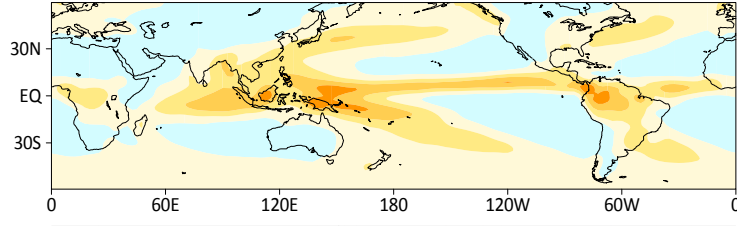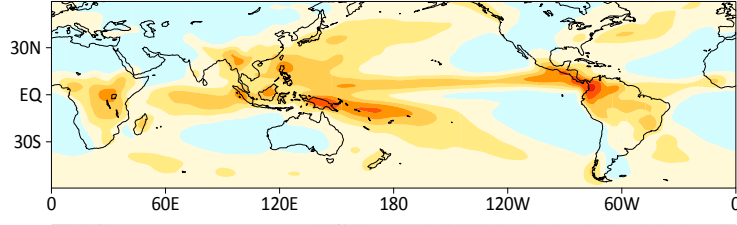
a) OBS: GPM

b) OBS: TRMM
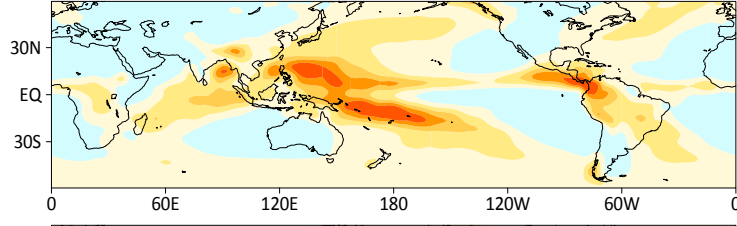p-corr 0.975 with GPM

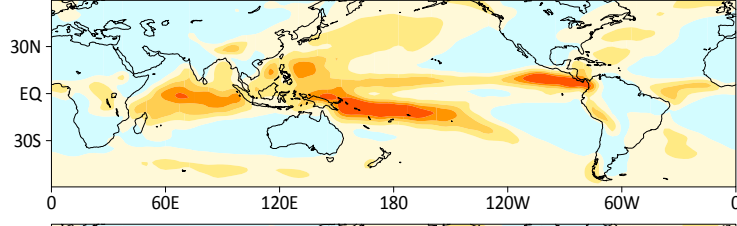c) OBS: GPCP
p-corr 0.973 with GPM

d) CAM6 L58-Control (#71)
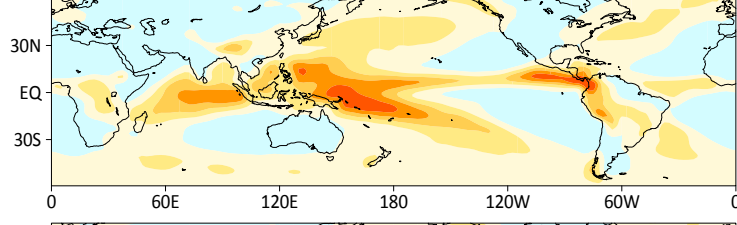0.878 0.870 0.872
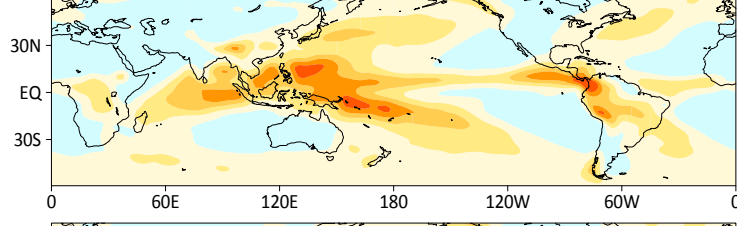p-corr (GPM TRMM GPCP)

e) 2.E-4fixent (#60)
0.852 0.823 0.815

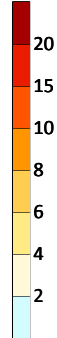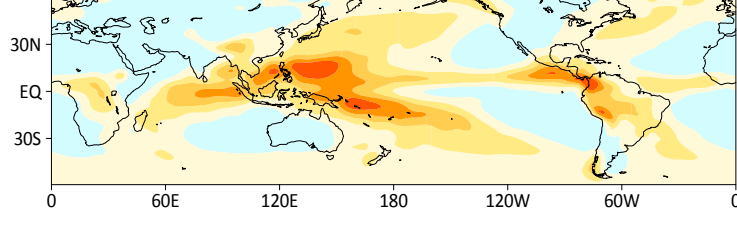f) 7Lopt50a3b3alph (#66)
0.789 0.762 0.742

g) 7Lopt50a3b3alph_2E-4lim (#72)
0.874 0.845 0.837

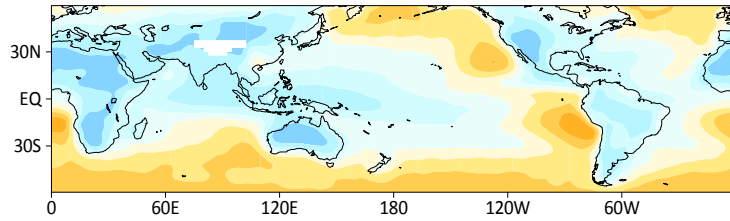h) 7Lopt50a3b3alph_3E-4lim (#76)
0.894 0.872 0.865

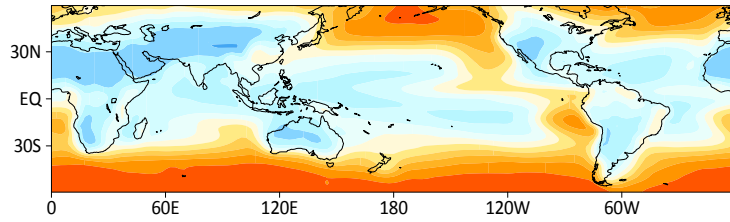i) 7Lopt50a3b3alph_4E-4lim (#75)
0.876 0.856 0.847

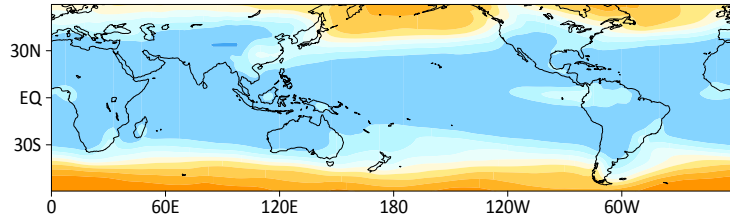# Annual Mean Low-cloud fraction (1998-2007)

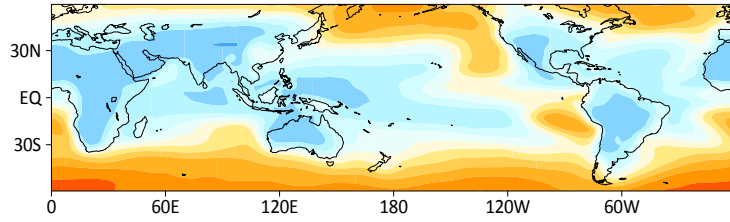a) Calipso

d) CAM6 L58-Control (#71)
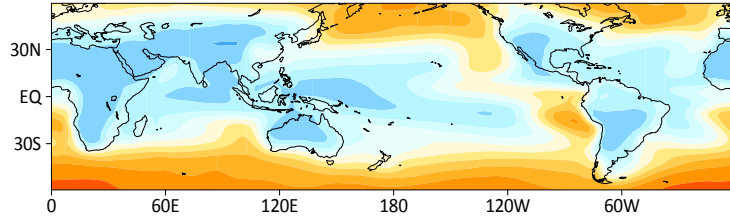0.893

e) 2.E-4fixent (#60)
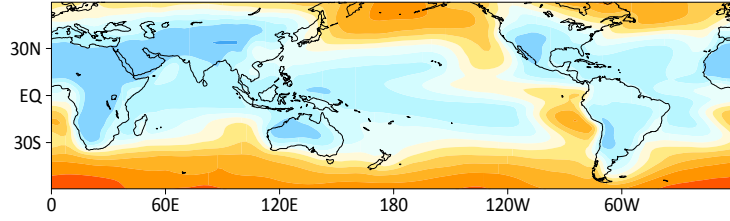0.632

f) 7Lopt50a3b3alph (#66)
0.919

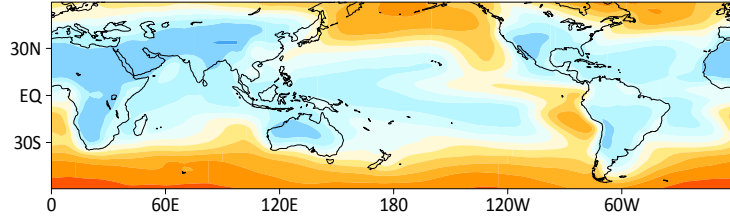g) 7Lopt50a3b3alph_2E-4lim (#72)
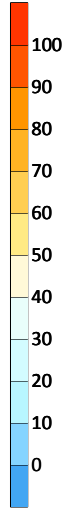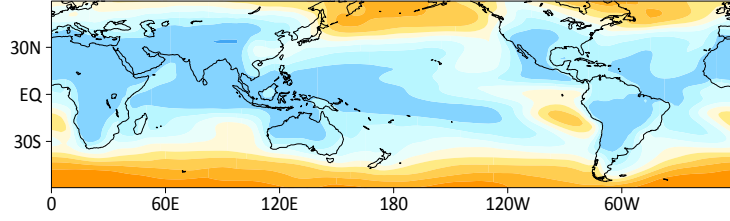0.912

h) 7Lopt50a3b3alph_3E-4lim (#76)
0.904

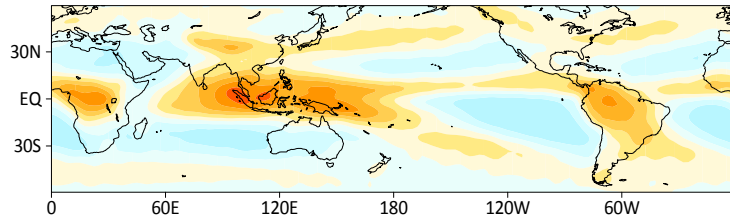i) 7Lopt50a3b3alph_4E-4lim (#75)
0.896

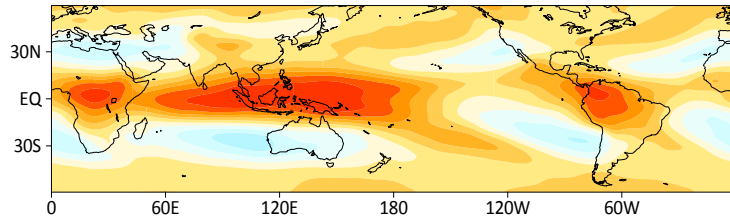j) 7Lopt5000a3b3alph_2E-4lim (#78)
0.859
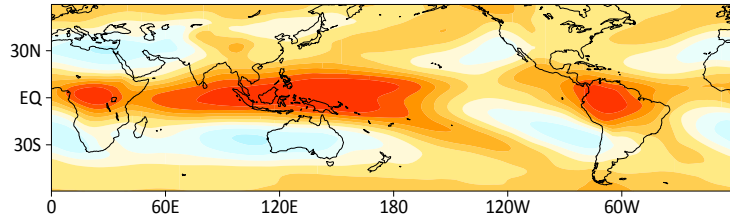
Annual Mean High-cloud fraction (1998-2007)
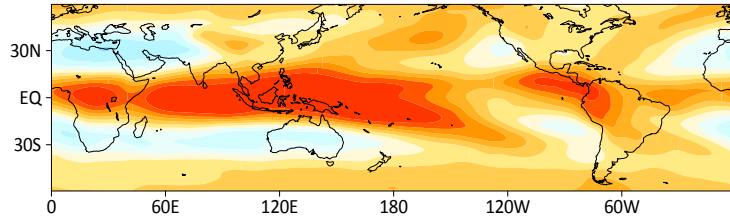
a) Calipso

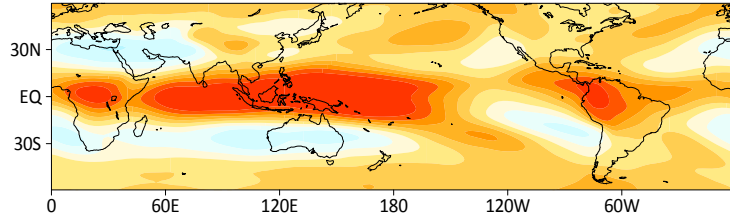d) CAM6 L58-Control (#71)
0.876

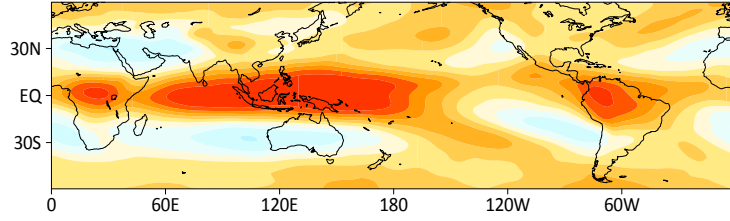e) 2.E-4fixent (#60)
0.848

f) 7Lopt50a3b3alph (#66)
0.743

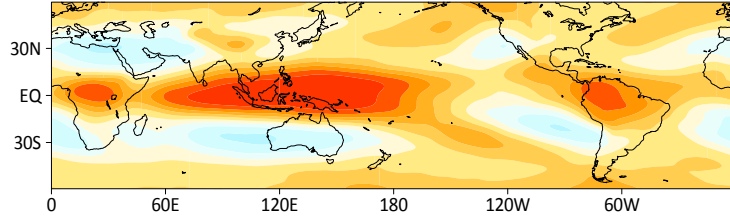g) 7Lopt50a3b3alph_2E-4lim (#72)
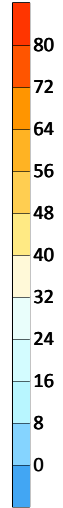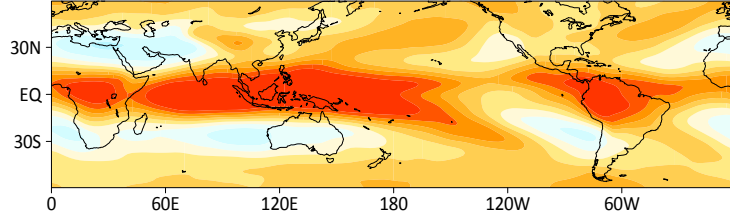0.809

h) 7Lopt50a3b3alph_3E-4lim (#76)
0.841

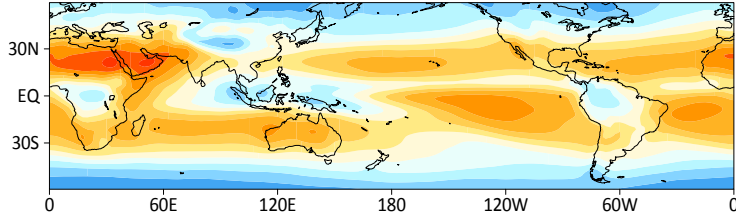i) 7Lopt50a3b3alph_4E-4lim (#75)
0.851

j) 7Lopt5000a3b3alph_2E-4lim (#78)
0.806

Annual Mean OLR (1998-2007)

a) NOAA

d) CAM6 L58-Control (#71)
0.968

e) 2.E-4fixent (#60)
0.954

f) 7Lopt50a3b3alph (#66)
0.903

g) 7Lopt50a3b3alph_2E-4lim (#72)
0.953

h) 7Lopt50a3b3alph_3E-4lim (#76)
0.966

i) 7Lopt50a3b3alph_4E-4lim (#75)
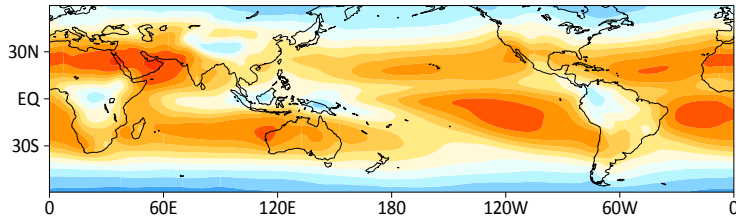0.963

j) 7Lopt5000a3b3alph_2E-4lim (#78)
0.953

Precip Wavenumber-frequency Spectra
(15S-15N; symmetric)

Precip Hovmoller Diagram by Regression
(Winter, Nov-Apr; 10S-10N; mm/day)

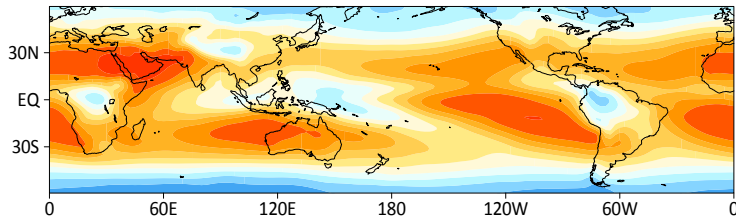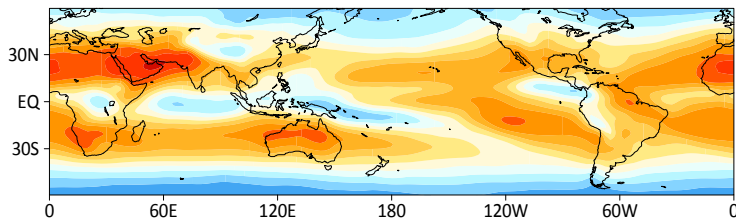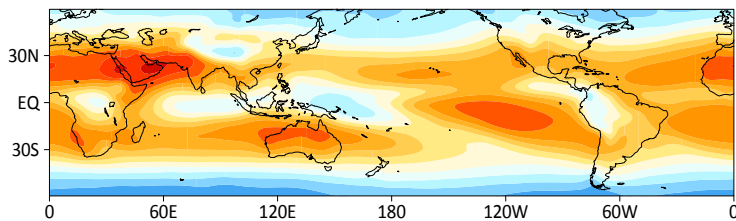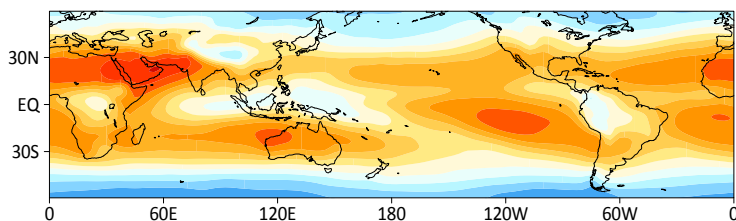a) GPM

d) CAM6 L58-Control (#71)

e) 2.E-4fixent (#60)

f) 7Lopt50a3b3alph (#66)- crashed
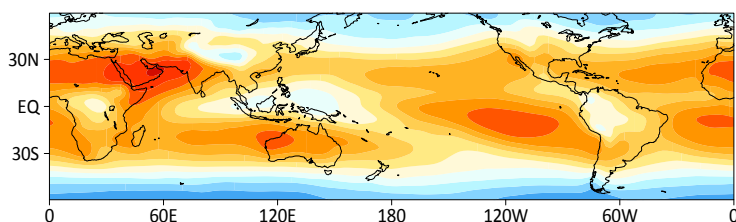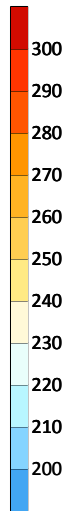
g) 7Lopt50a3b3alph_2E-4lim (#72)
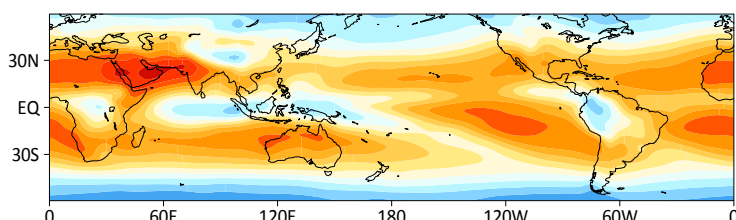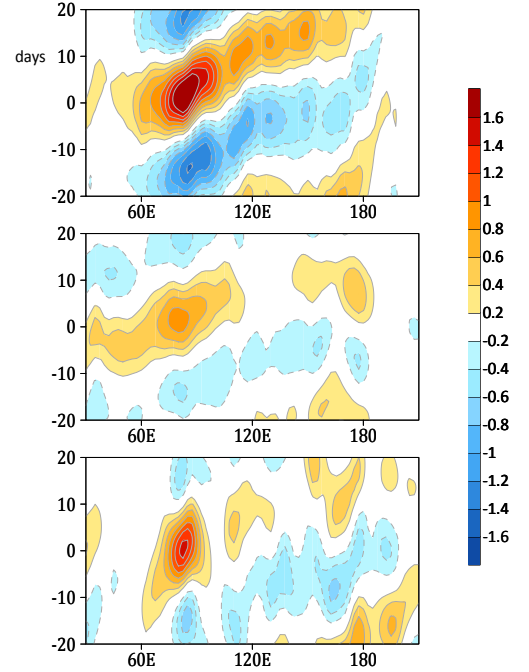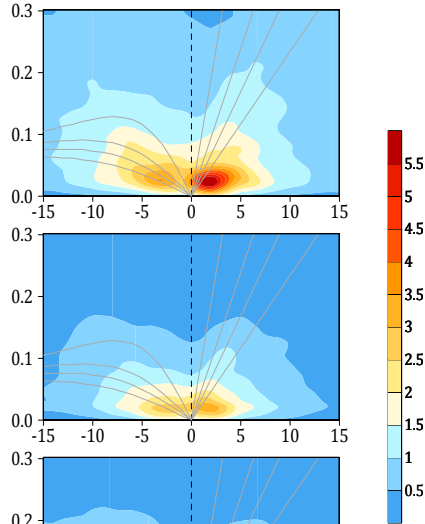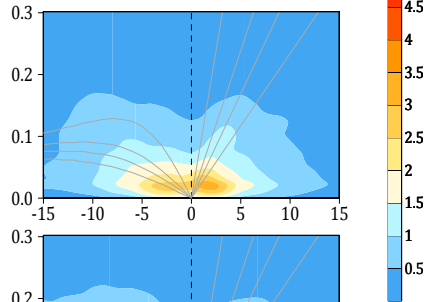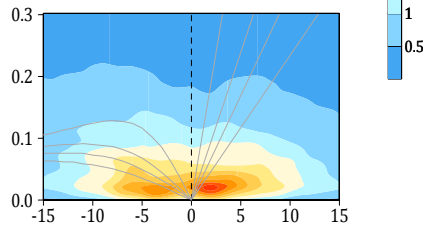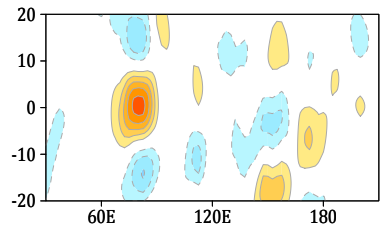
h) 7Lopt50a3b3alph_3E-4lim (#76)

i) 7Lopt50a3b3alph_4E-4lim (#75)

j) 7Lopt5000a3b3alph_2E-4lim (#78)

Precipitation versus Precipitable-water Profiles

a) TRMM
d) CAM6 L58-Control (#71)
e) 2.E-4fixent (#60)
f) 7Lopt50a3b3alph (#66)
g) 7Lopt50a3b3alph_2E-4lim (#72)
h) 7Lopt50a3b3alph_3E-4lim (#76)
i) 7Lopt50a3b3alph_4E-4lim (#75)
j) 7Lopt5000a3b3alph_2E-4lim (#78)

Precipitation Probability Distribution
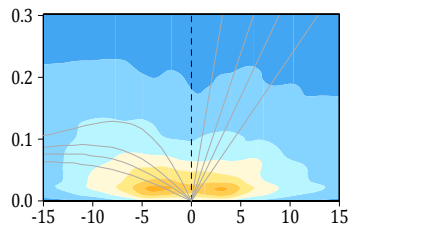

Legend:
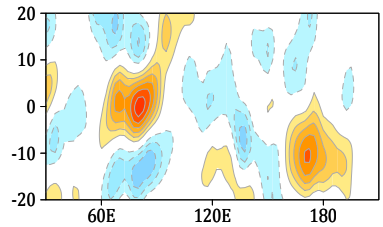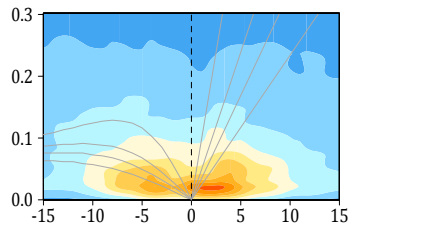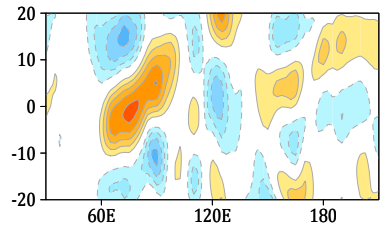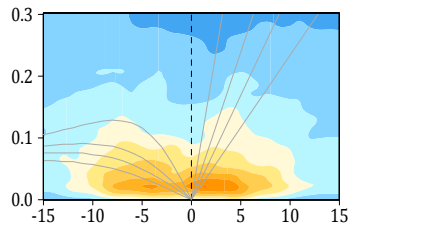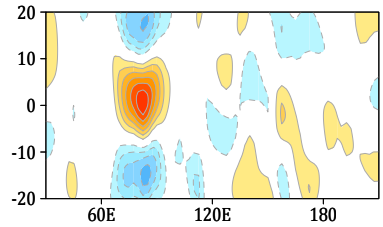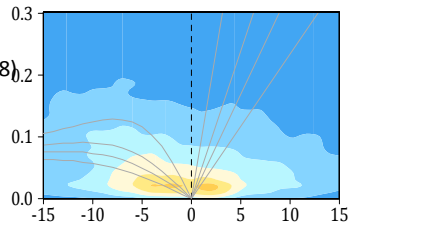- a) OBS (TRMM: +; GPM: o)
- d) CAM6 L58-Control (#71)
- e) 2.E-4fixent (#60)
- f) 7Lopt50a3b3alph (#66)
- g) 7Lopt50a3b3alph_2E-4lim (#72)
- h) 7Lopt50a3b3alph_3E-4lim (#76)
- i) 7Lopt50a3b3alph_4E-4lim (#75)
- j) 7Lopt5000a3b3alph_2E-4lim (#78)

X-axis: Precipitation (log10)

Y-axis: Precipitation Probability