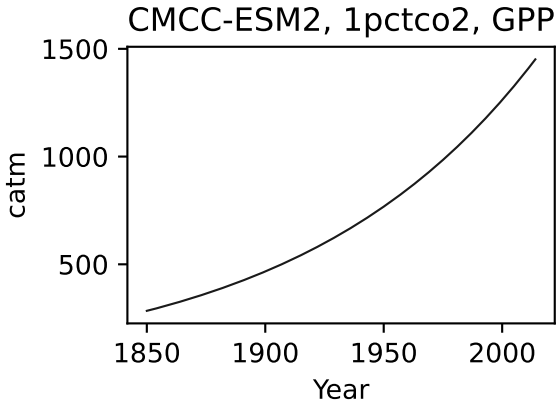
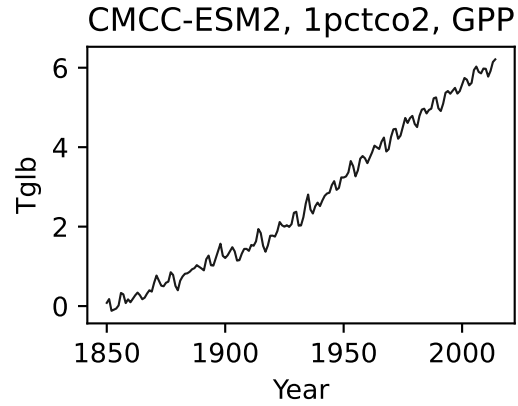
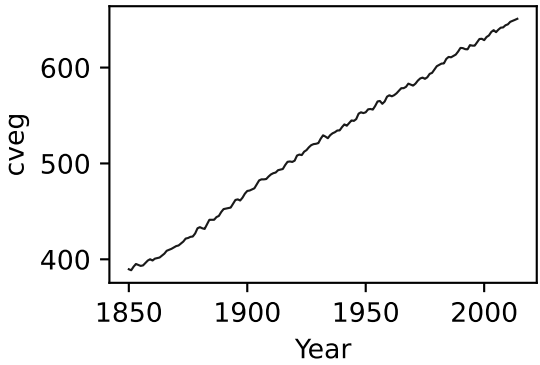
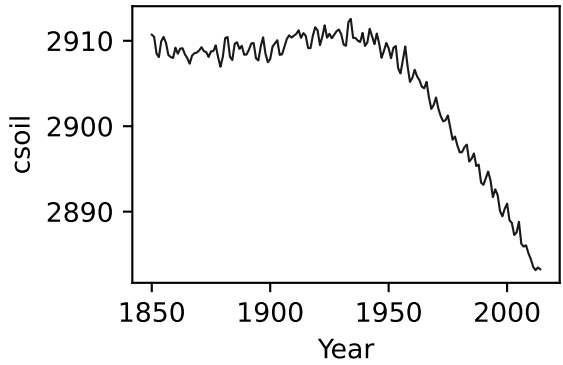
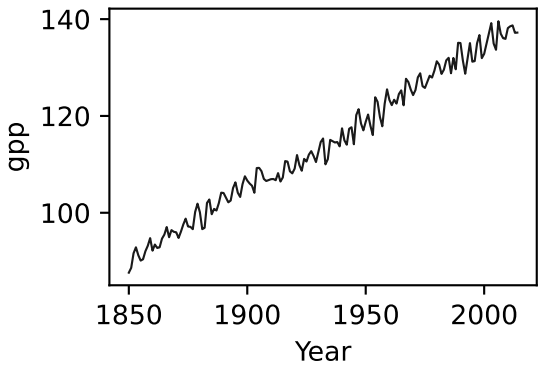
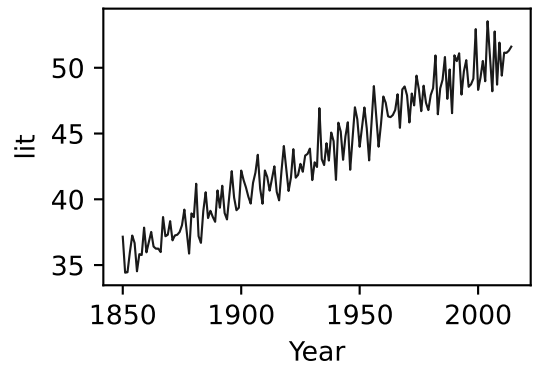

CMCC-ESM2, 1pctco2, GPP
catm
1500
1000
500
1850
1900
1950
2000
Year

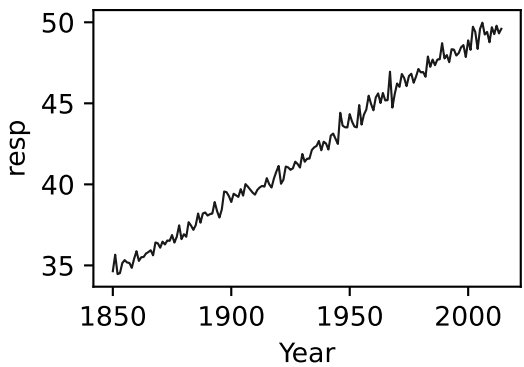

CMCC-ESM2, 1pctco2, GPP
Tglb
6
4
2
0
1850
1900
1950
2000
Year

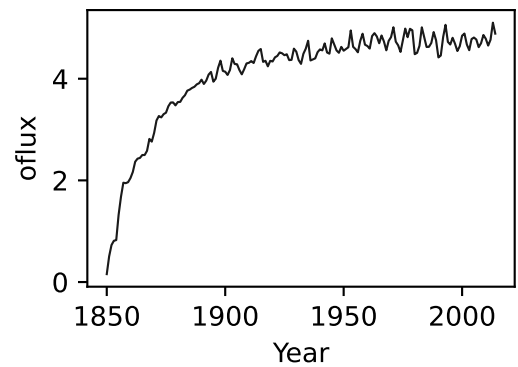

cveg
600
500
400
1850
1900
1950
2000
Year

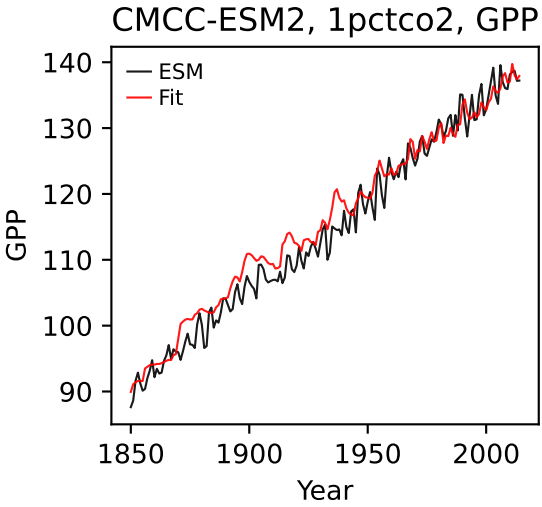

csoil
2910
2900
2890
1850
1900
1950
2000
Year

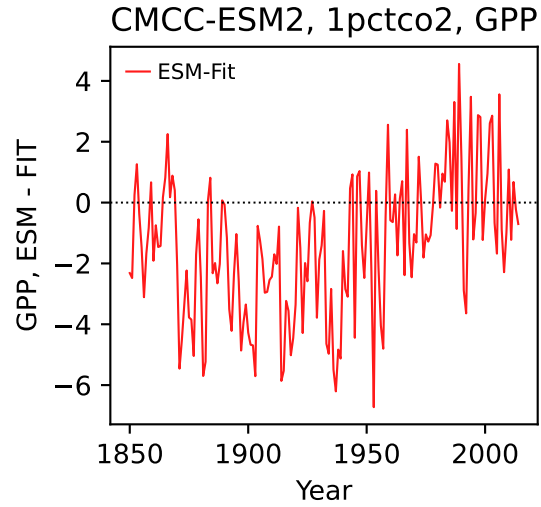

gpp
140
120
100
1850
1900
1950
2000
Year

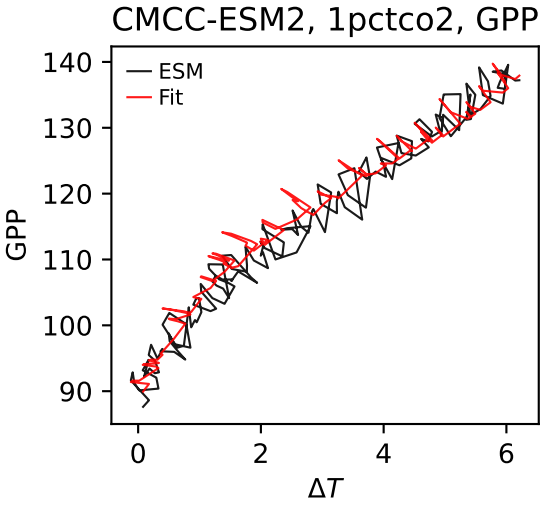

lit
50
45
40
35
1850
1900
1950
2000
Year

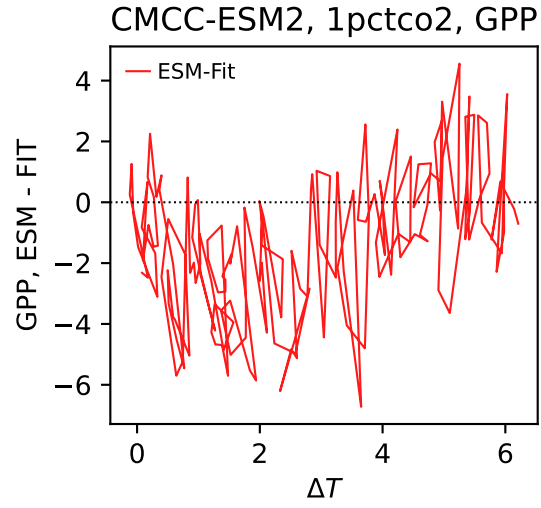

resp
50
45
40
35
1850
1900
1950
2000
Year

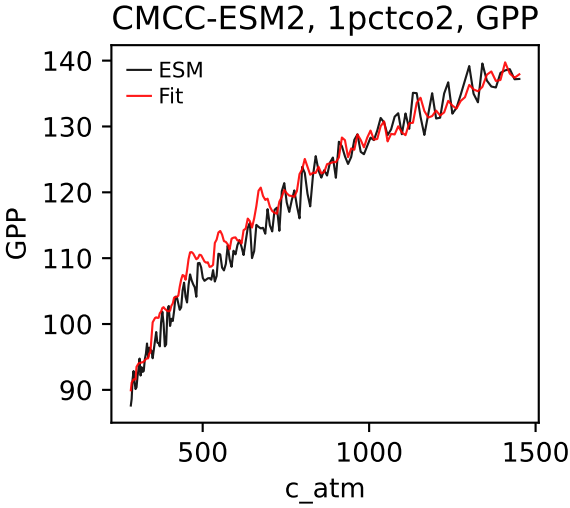

oflux
4
2
0
1850
1900
1950
2000
Year

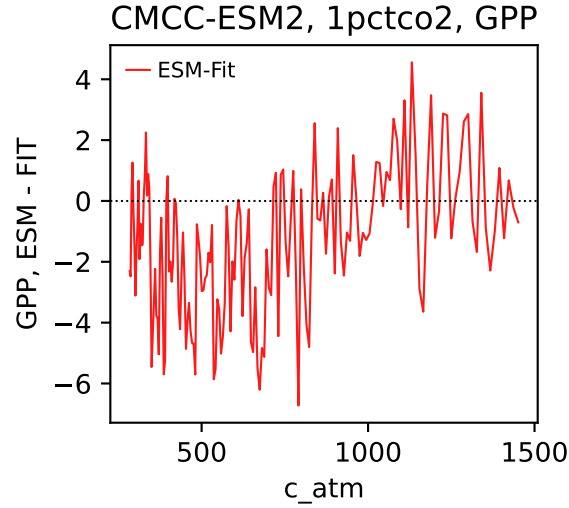

CMCC-ESM2, 1pctco2, GPP
ESM
Fit
GPP
Year

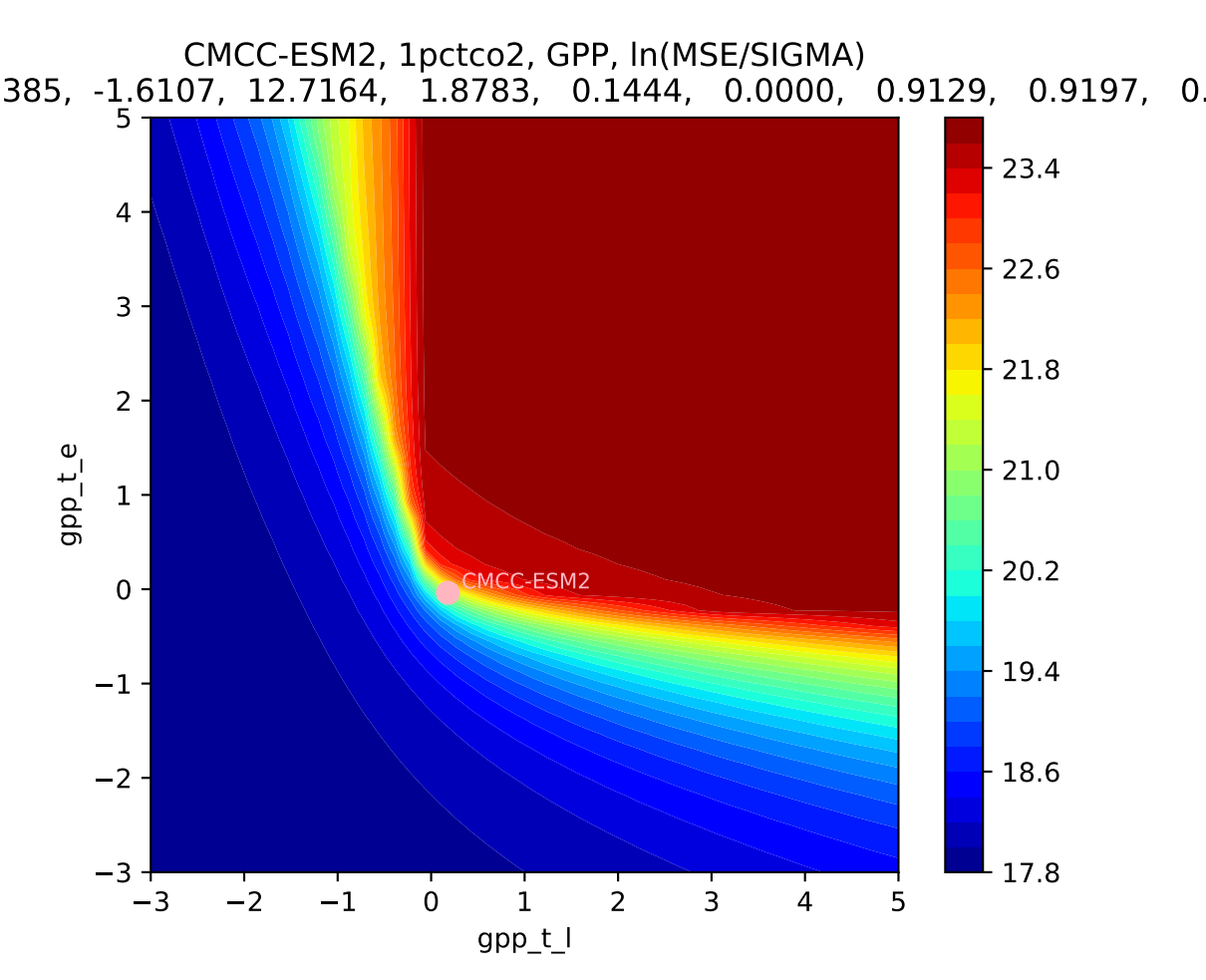

CMCC-ESM2, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
Year

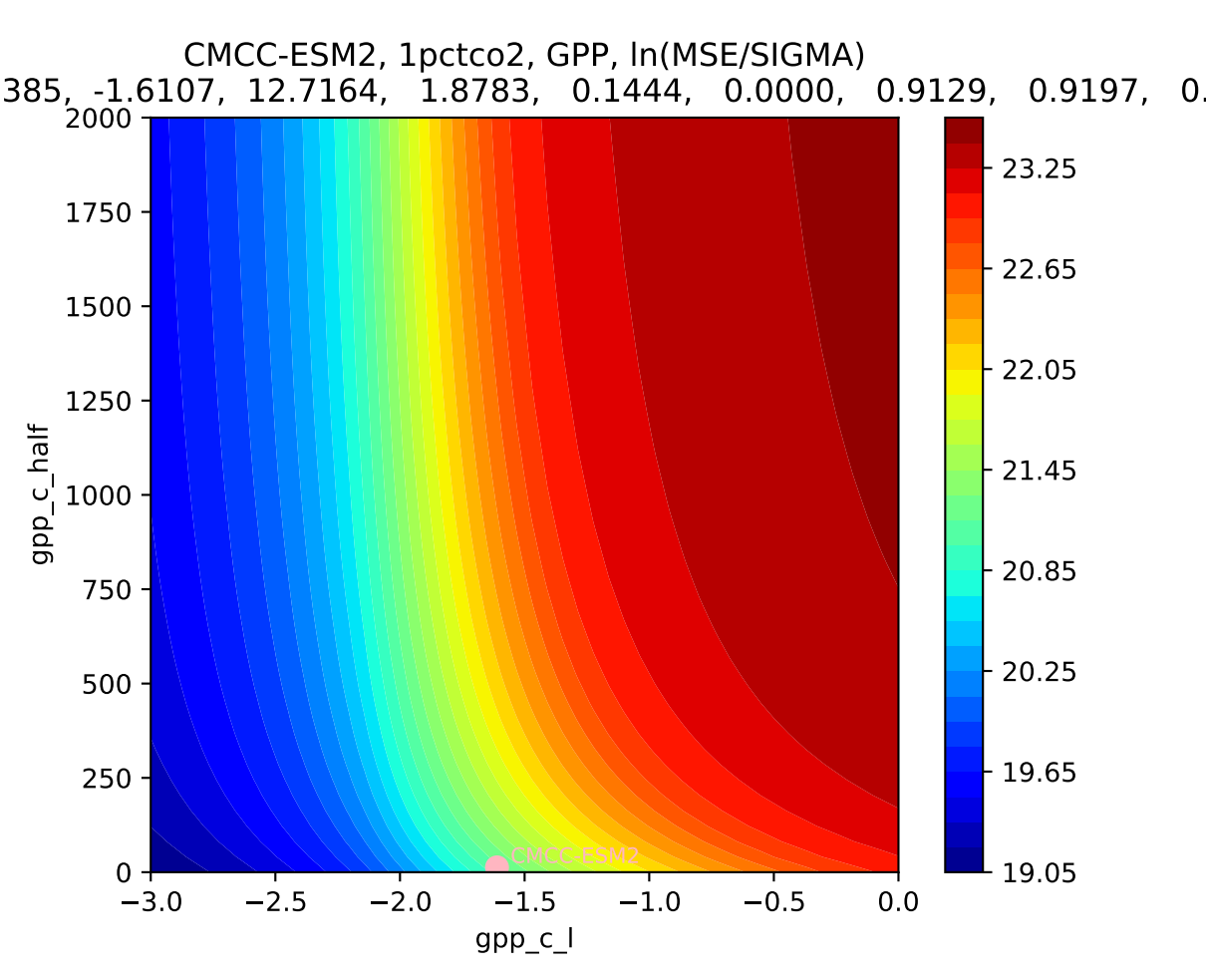

CMCC-ESM2, 1pctco2, GPP
ESM
Fit
GPP
ΔT

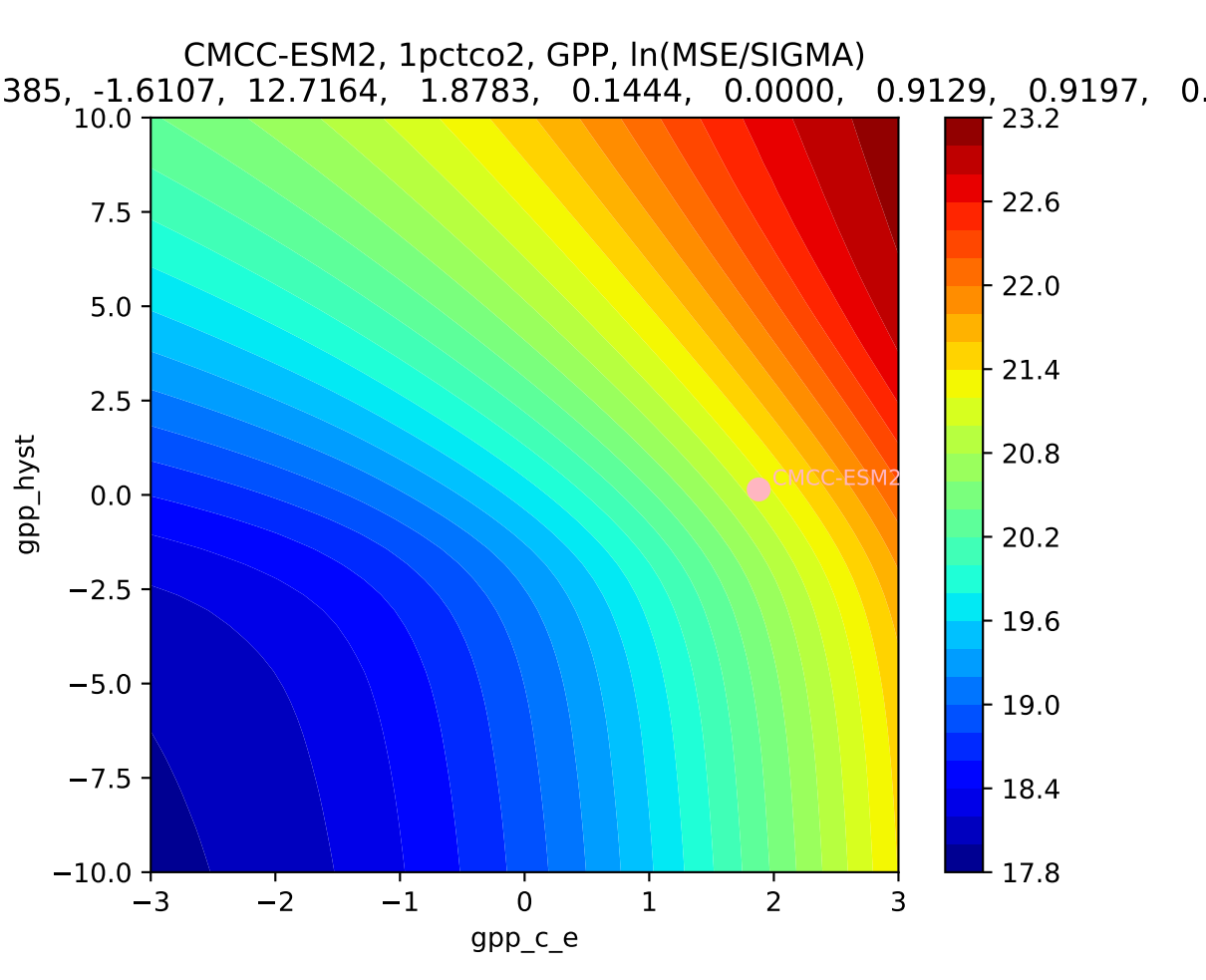

CMCC-ESM2, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
ΔT

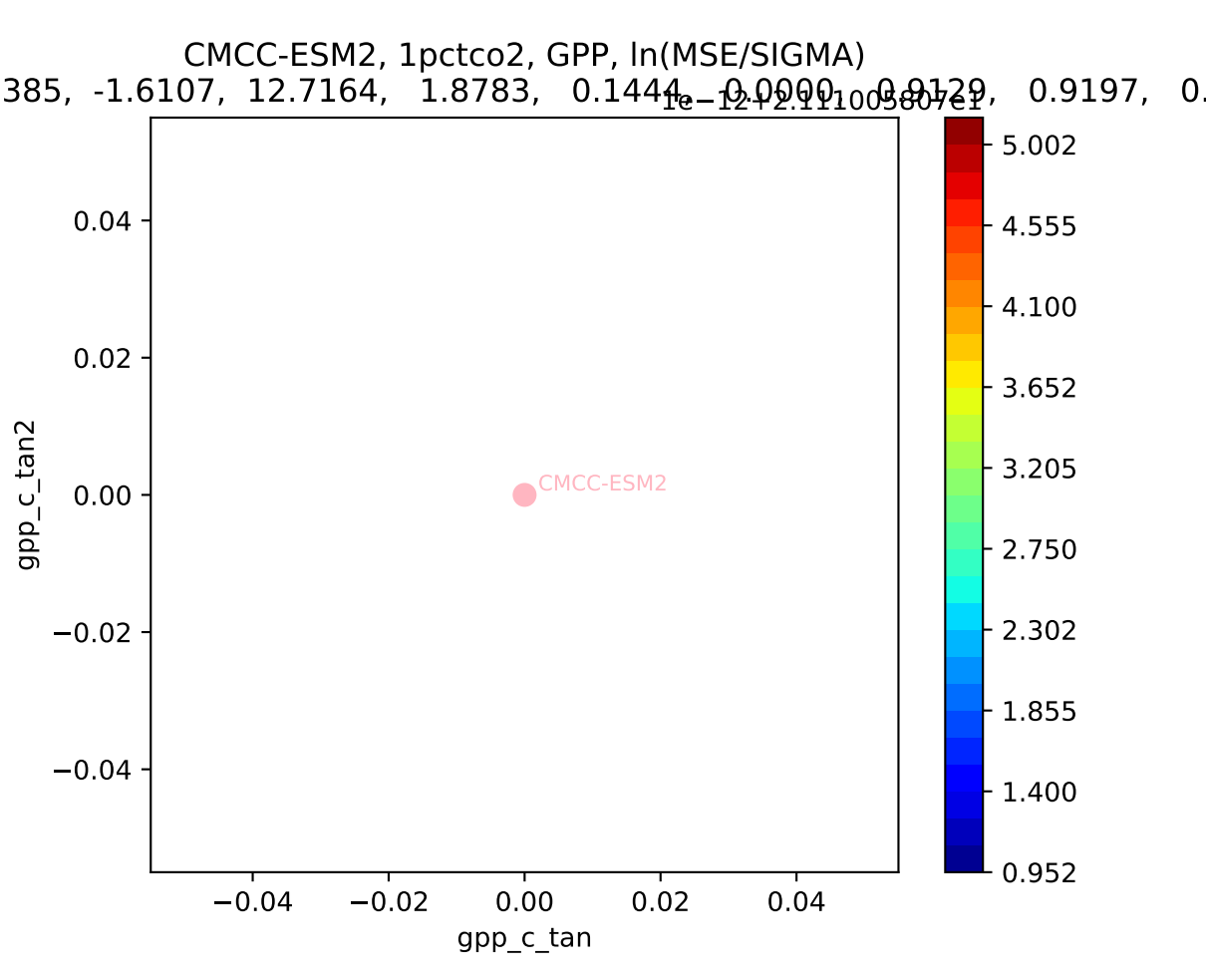

CMCC-ESM2, 1pctco2, GPP
ESM
Fit
GPP
c_atm

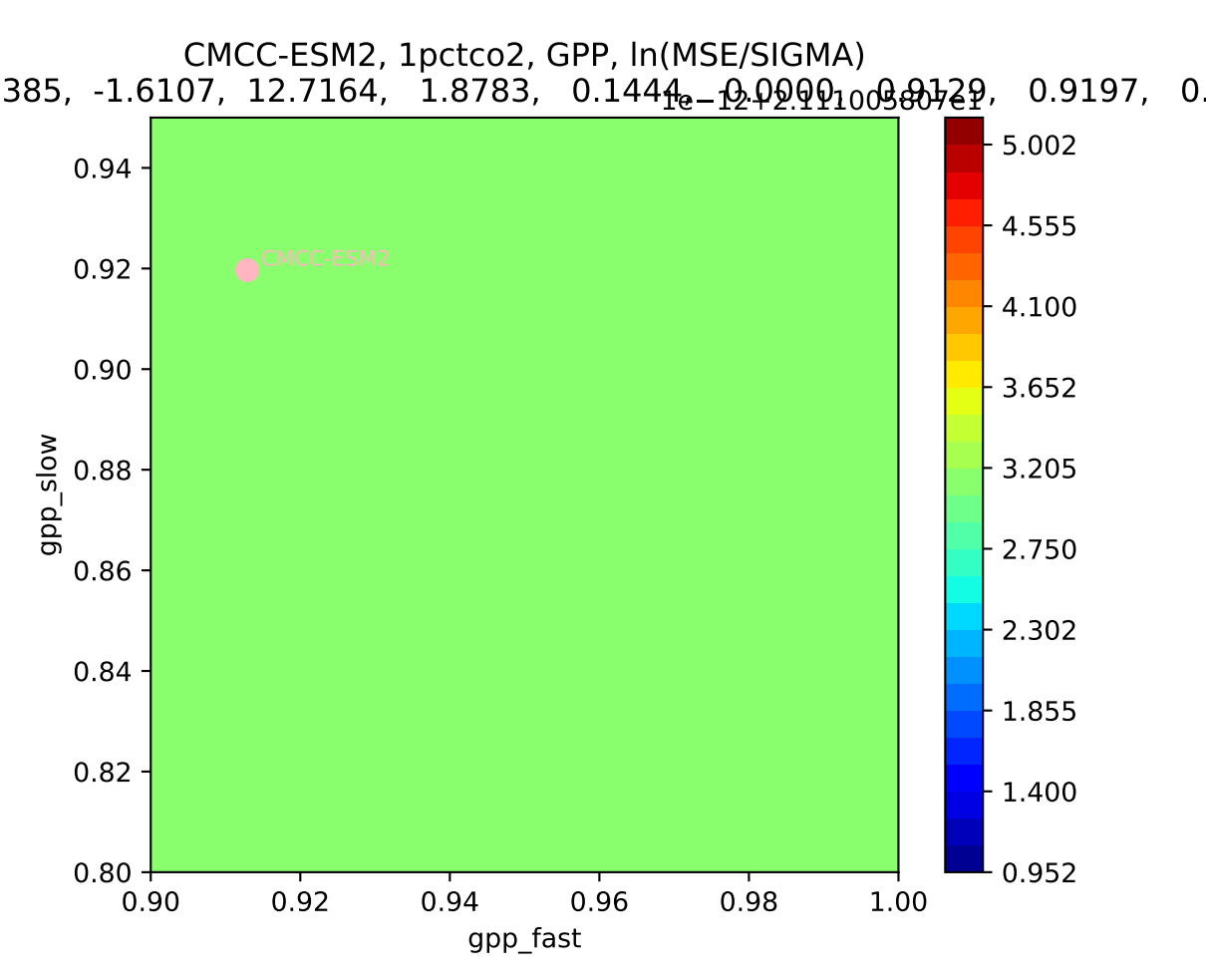

CMCC-ESM2, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
c_atm

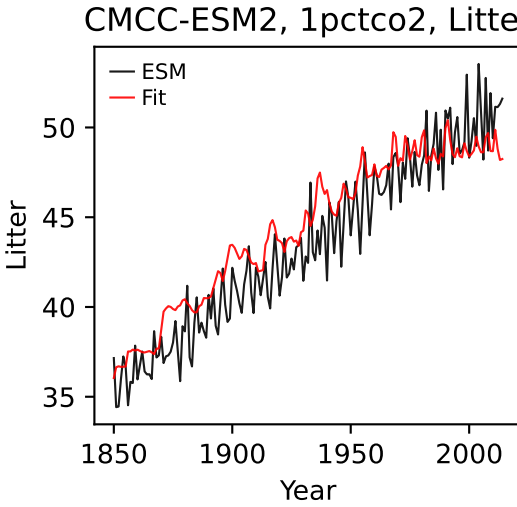

CMCC-ESM2, 1pctco2, GPP, ln(MSE/SIGMA)
385, -1.6107, 12.7164, 1.8783, 0.1444, 0.0000, 0.9129, 0.9197, 0.
CMCC-ESM2
gpp_t_e
gpp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
23.4
22.6
21.8
21.0
20.2
19.4
18.6
17.8

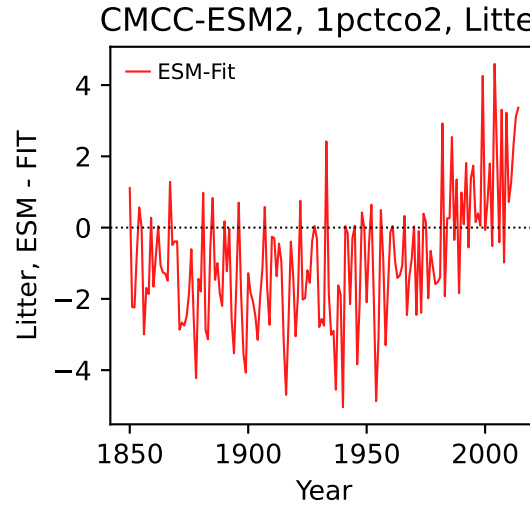

CMCC-ESM2, 1pctco2, GPP, ln(MSE/SIGMA)
385, -1.6107, 12.7164, 1.8783, 0.1444, 0.0000, 0.9129, 0.9197, 0.
gpp_c_half
gpp_c_l
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
23.25
22.65
22.05
21.45
20.85
20.25
19.65
19.05
CMCC-ESM2

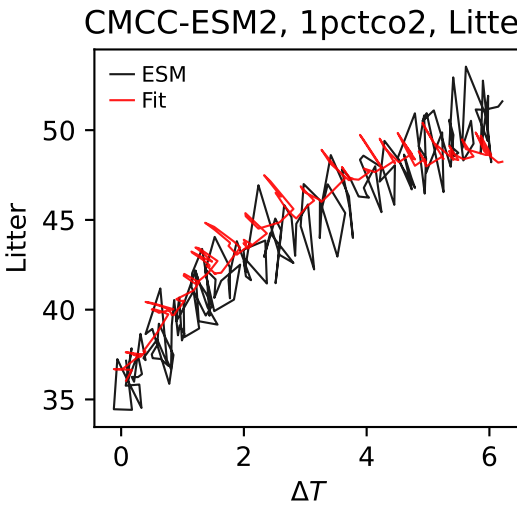

CMCC-ESM2, 1pctco2, GPP, ln(MSE/SIGMA)
385, -1.6107, 12.7164, 1.8783, 0.1444, 0.0000, 0.9129, 0.9197, 0.
CMCC-ESM2
gpp_hyst
gpp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
23.2
22.6
22.0
21.4
20.8
20.2
19.6
19.0
18.4
17.8

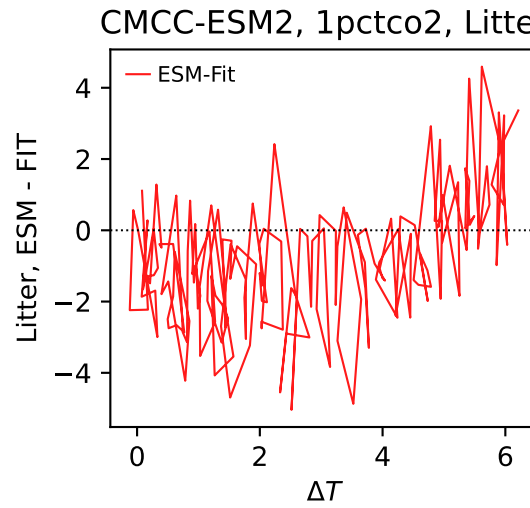

CMCC-ESM2, 1pctco2, GPP, ln(MSE/SIGMA)
385, -1.6107, 12.7164, 1.8783, 0.1444, 0.0000, 0.9129, 0.9197, 0.
1e−12+2.111005807e1
CMCC-ESM2
gpp_c_tan2
gpp_c_tan
0.04
0.02
0.00
−0.02
−0.04
5.002
4.555
4.100
3.652
3.205
2.750
2.302
1.855
1.400
0.952

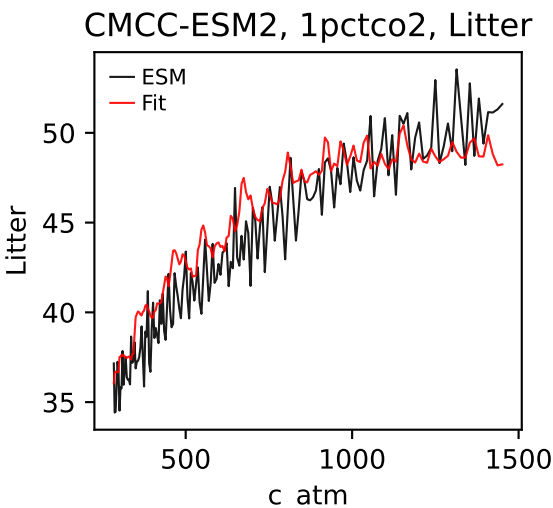

CMCC-ESM2, 1pctco2, GPP, ln(MSE/SIGMA)
385, -1.6107, 12.7164, 1.8783, 0.1444, 0.0000, 0.9129, 0.9197, 0.
1e−12+2.111005807e1
CMCC-ESM2
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
gpp_slow
0.90
0.92
0.94
0.96
0.98
1.00
gpp_fast
5.002
4.555
4.100
3.652
3.205
2.750
2.302
1.855
1.400
0.952

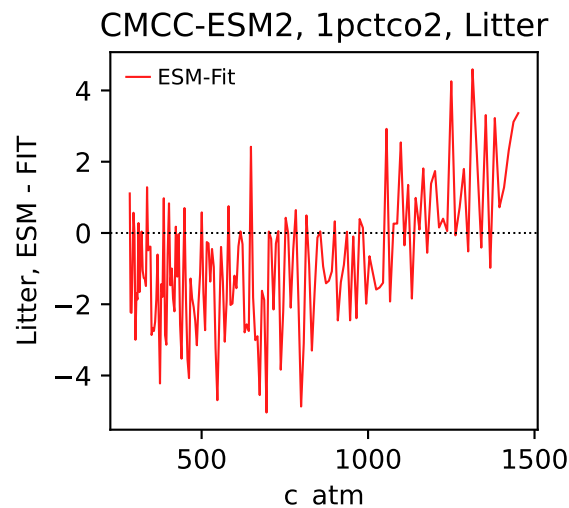

CMCC-ESM2, 1pctco2, Litter
ESM
Fit
Litter
Year

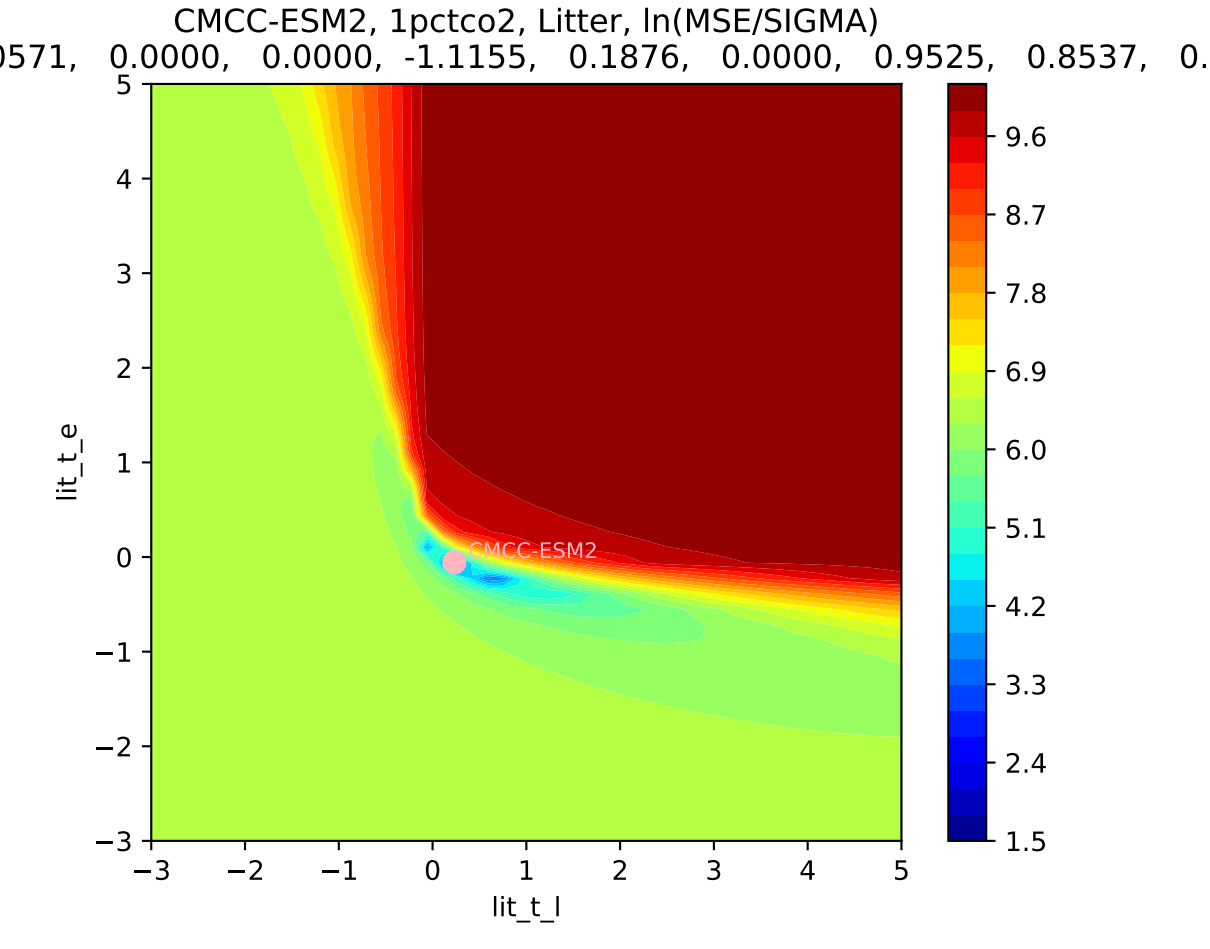

CMCC-ESM2, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
Year

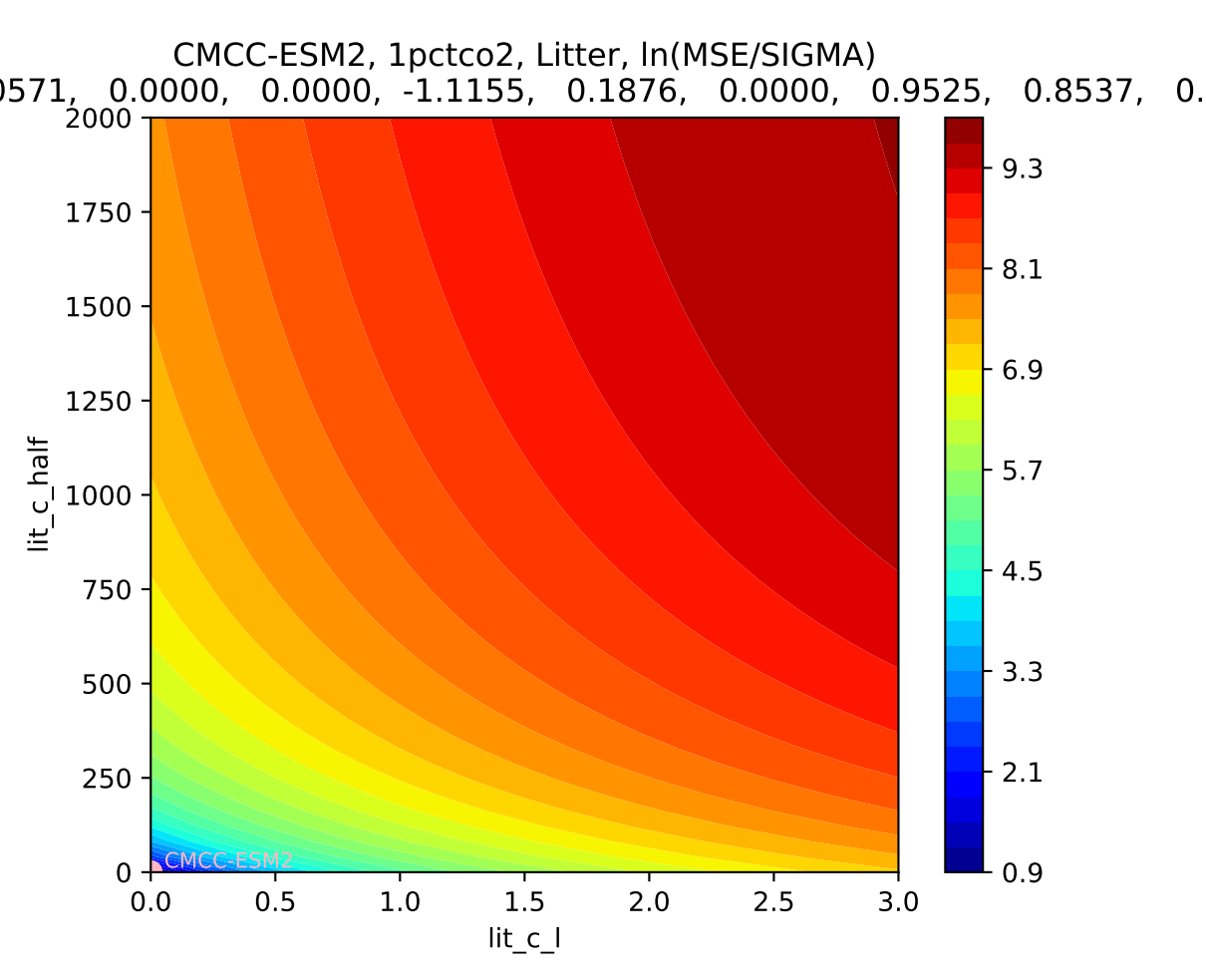

CMCC-ESM2, 1pctco2, Litter
ESM
Fit
Litter
ΔT

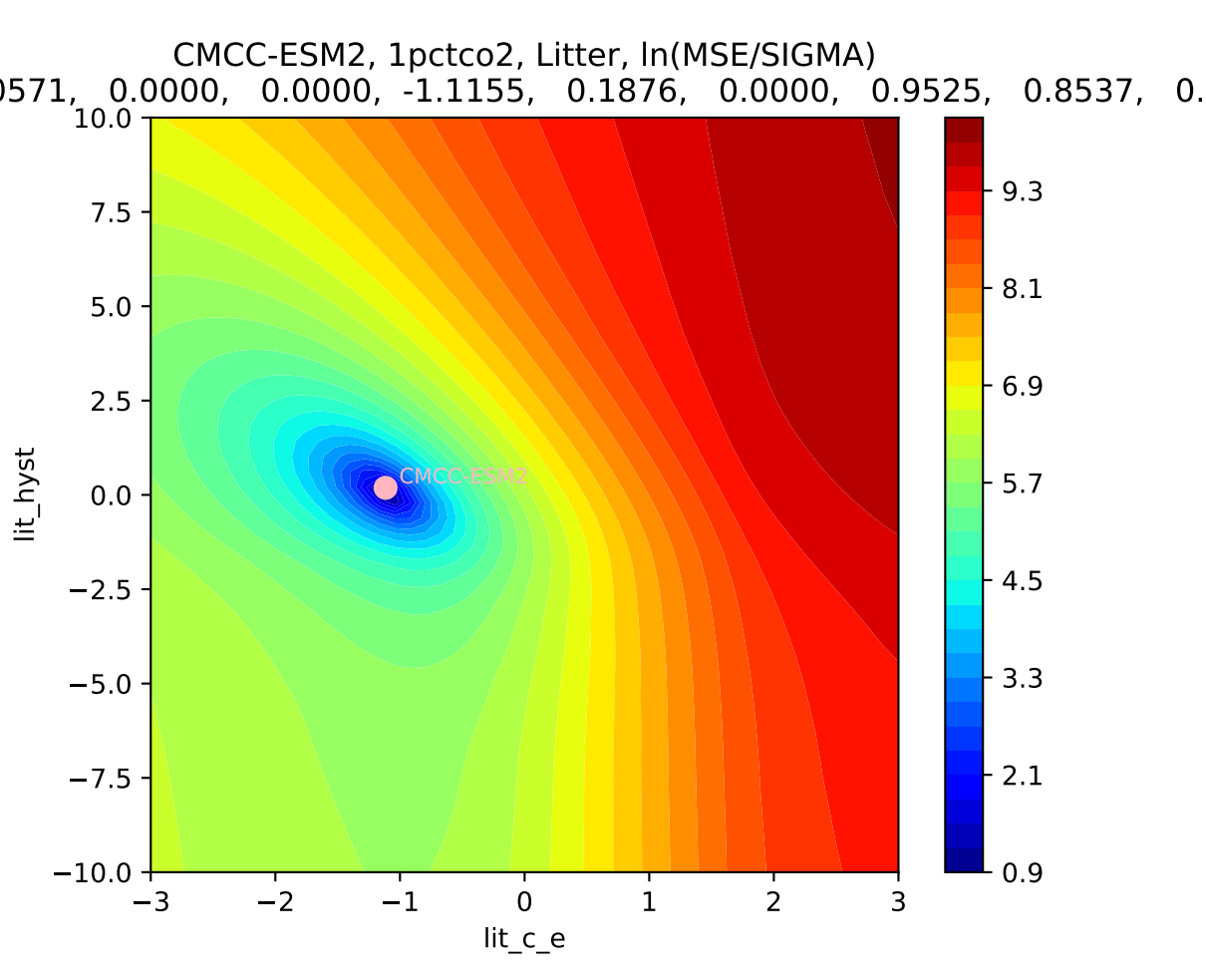

CMCC-ESM2, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

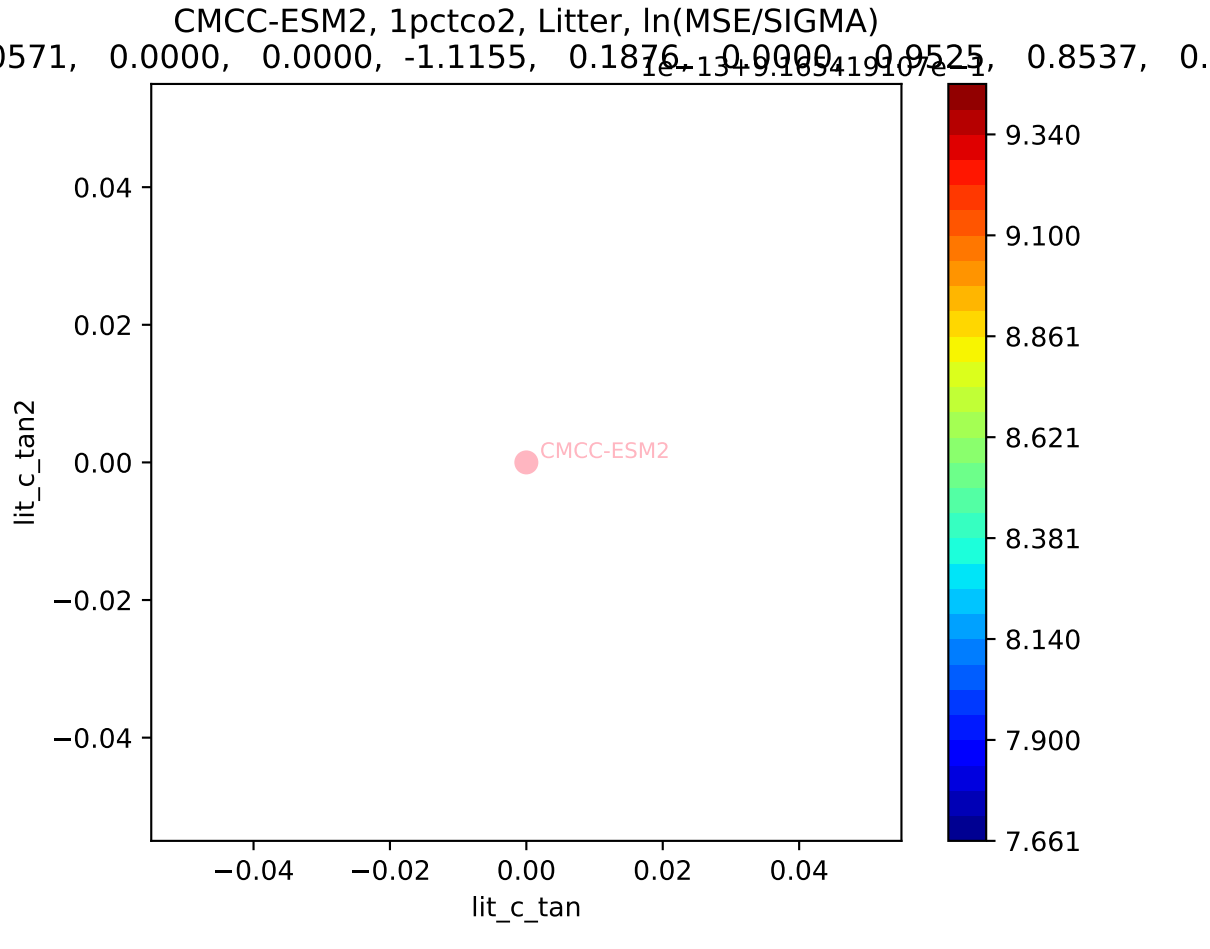

CMCC-ESM2, 1pctco2, Litter
ESM
Fit
Litter
c_atm

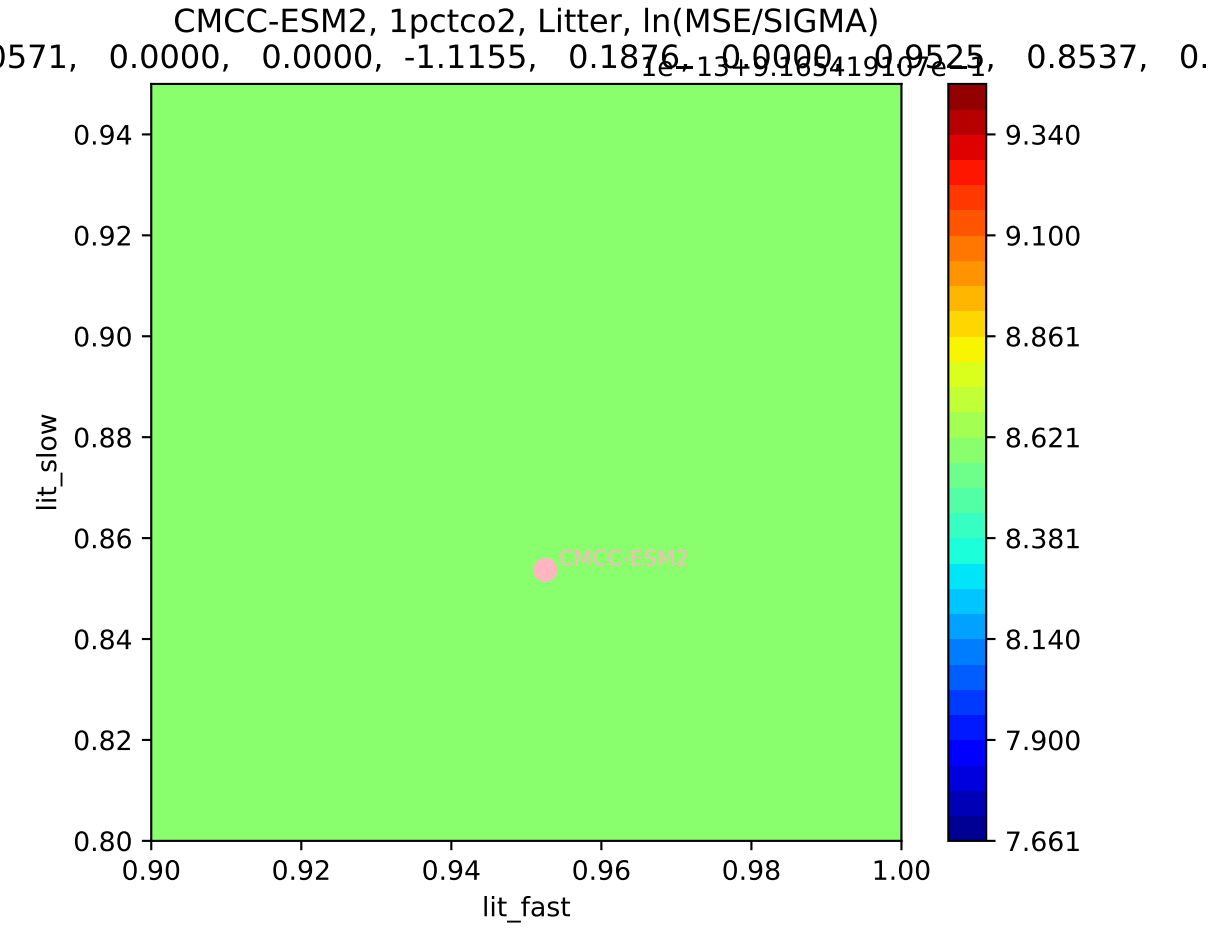

CMCC-ESM2, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

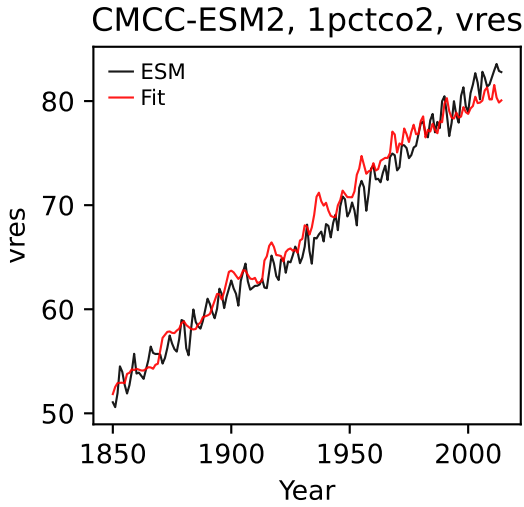

CMCC-ESM2, 1pctco2, Litter, ln(MSE/SIGMA)
0571, 0.0000, 0.0000, -1.1155, 0.1876, 0.0000, 0.9525, 0.8537, 0.
CMCC-ESM2
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
9.6
8.7
7.8
6.9
6.0
5.1
4.2
3.3
2.4
1.5

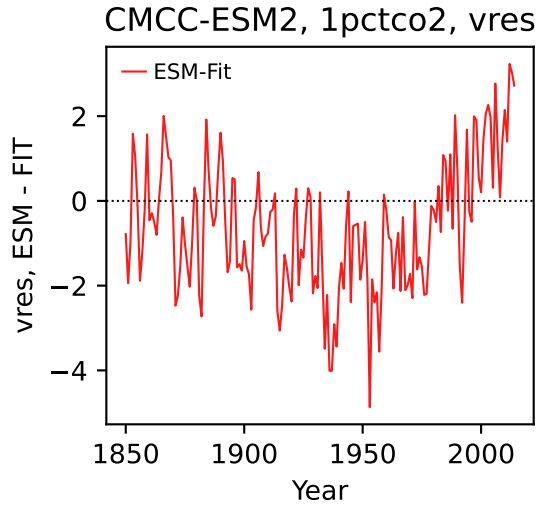

CMCC-ESM2, 1pctco2, Litter, ln(MSE/SIGMA)
0571, 0.0000, 0.0000, -1.1155, 0.1876, 0.0000, 0.9525, 0.8537, 0.
lit_c_half
lit_c_l
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
9.3
8.1
6.9
5.7
4.5
3.3
2.1
0.9
CMCC-ESM2

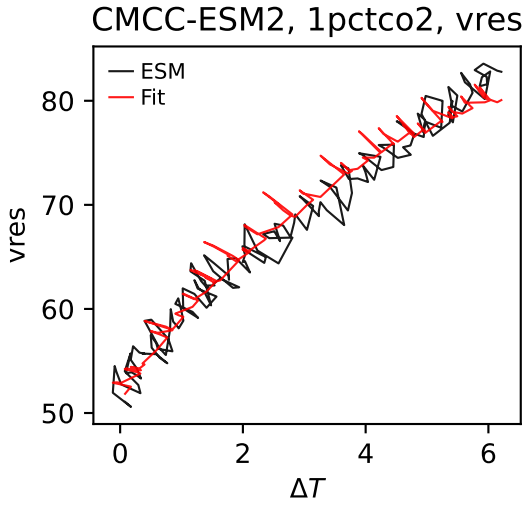

CMCC-ESM2, 1pctco2, Litter, ln(MSE/SIGMA)
0571, 0.0000, 0.0000, -1.1155, 0.1876, 0.0000, 0.9525, 0.8537, 0.
CMCC-ESM2
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
9.3
8.1
6.9
5.7
4.5
3.3
2.1
0.9

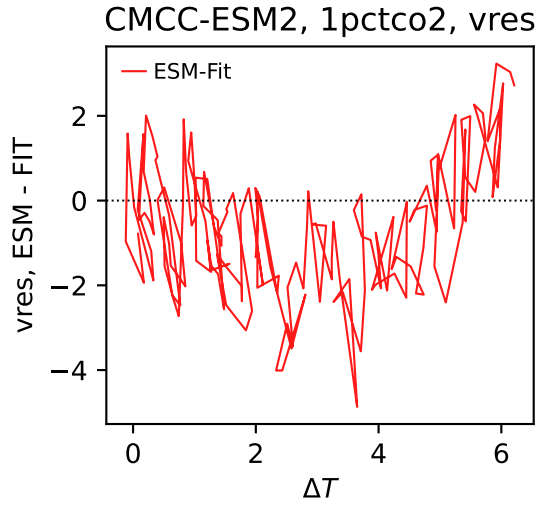

CMCC-ESM2, 1pctco2, Litter, ln(MSE/SIGMA)
0571, 0.0000, 0.0000, -1.1155, 0.1876, 0.0000, 0.9525, 0.8537, 0.
1e-134 9.165419107e-1
CMCC-ESM2
0.04
0.02
0.00
−0.02
−0.04
lit_c_tan2
−0.04
−0.02
0.00
0.02
0.04
lit_c_tan
9.340
9.100
8.861
8.621
8.381
8.140
7.900
7.661

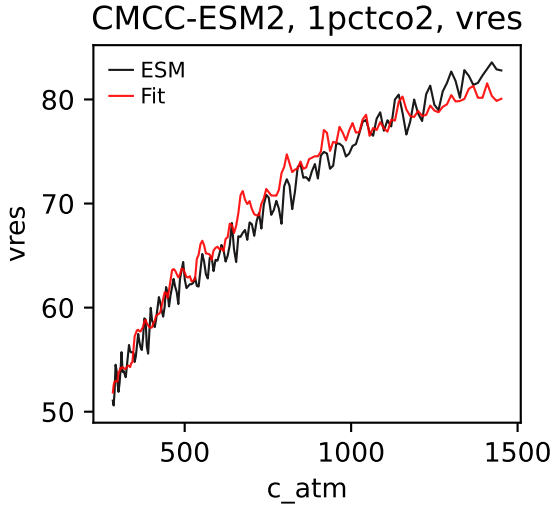

CMCC-ESM2, 1pctco2, Litter, ln(MSE/SIGMA)
0571, 0.0000, 0.0000, -1.1155, 0.1876, 0.0000, 0.9525, 0.8537, 0.
1e-13+9.1654191e-1
CMCC-ESM2
lit_slow
lit_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
9.340
9.100
8.861
8.621
8.381
8.140
7.900
7.661

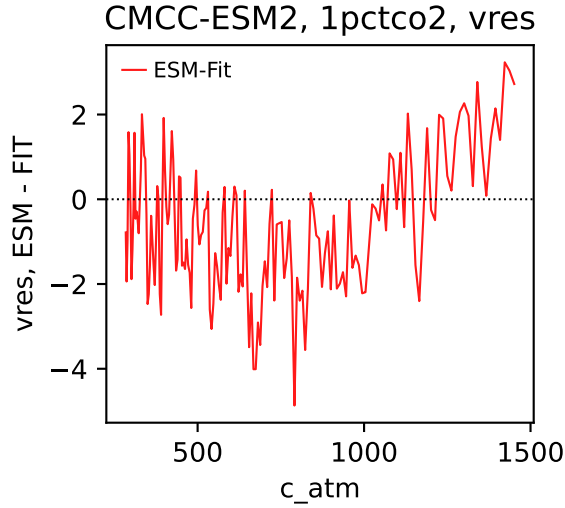

CMCC-ESM2, 1pctco2, vres
ESM
Fit
vres
Year

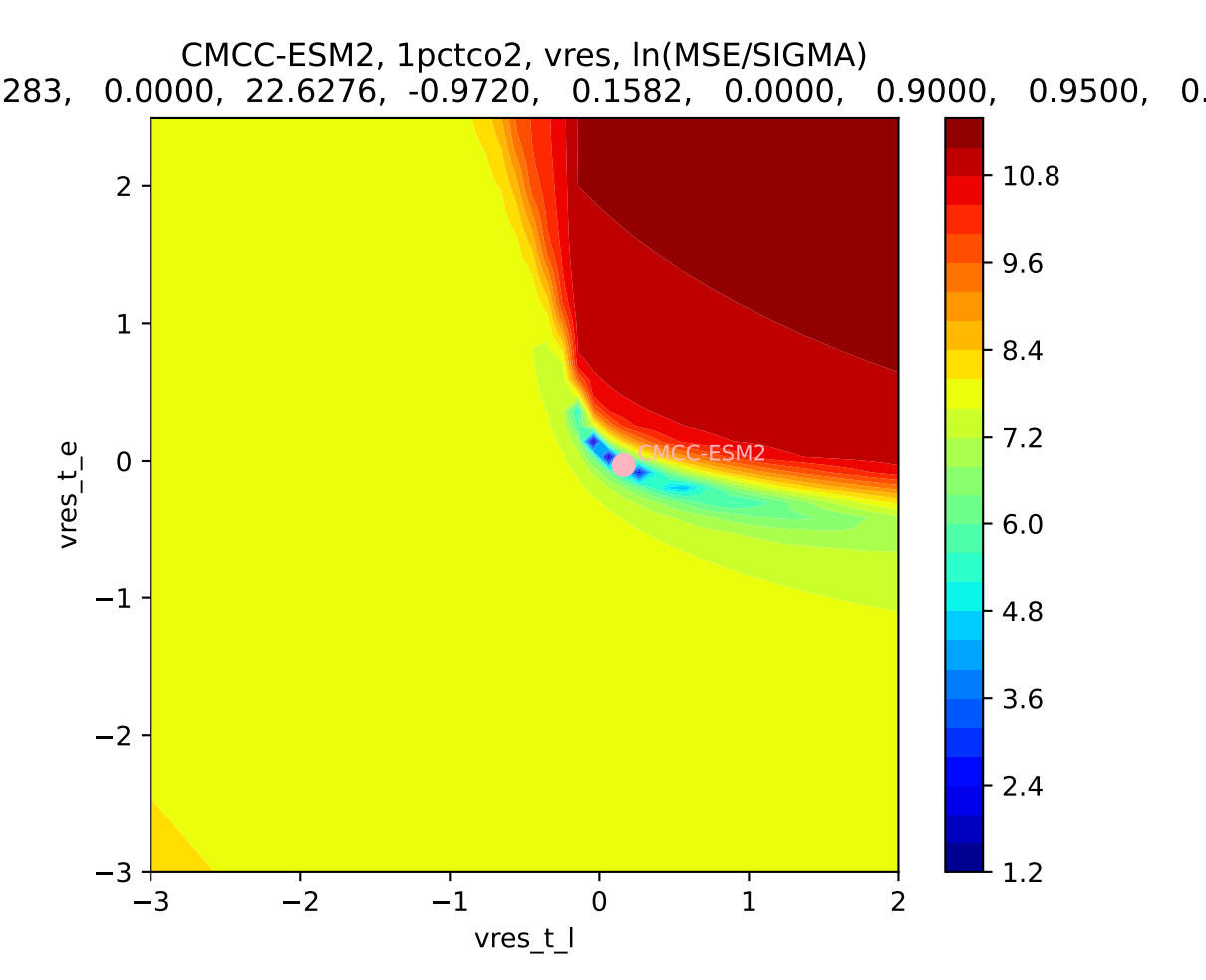

CMCC-ESM2, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
Year

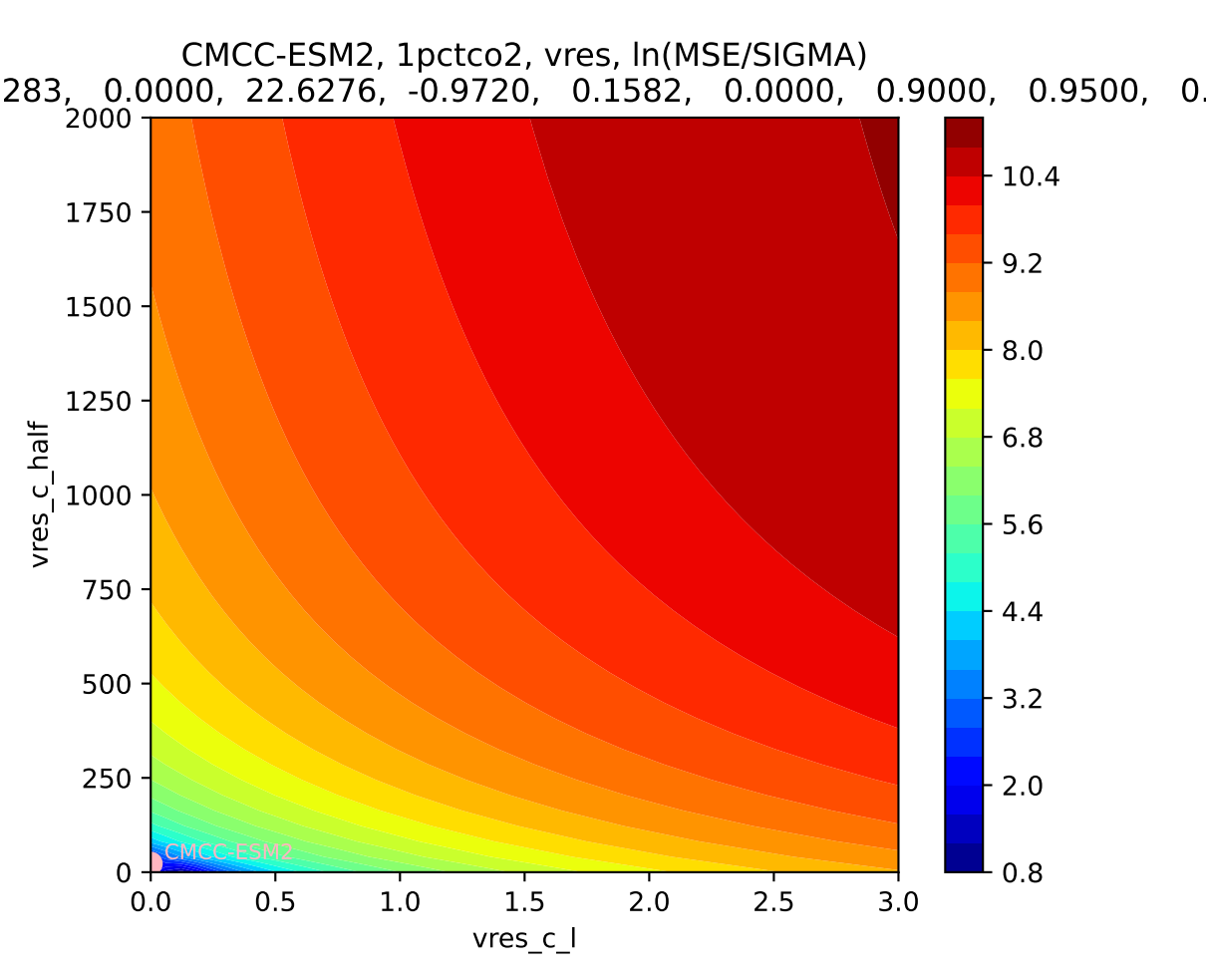

CMCC-ESM2, 1pctco2, vres
ESM
Fit
vres
ΔT

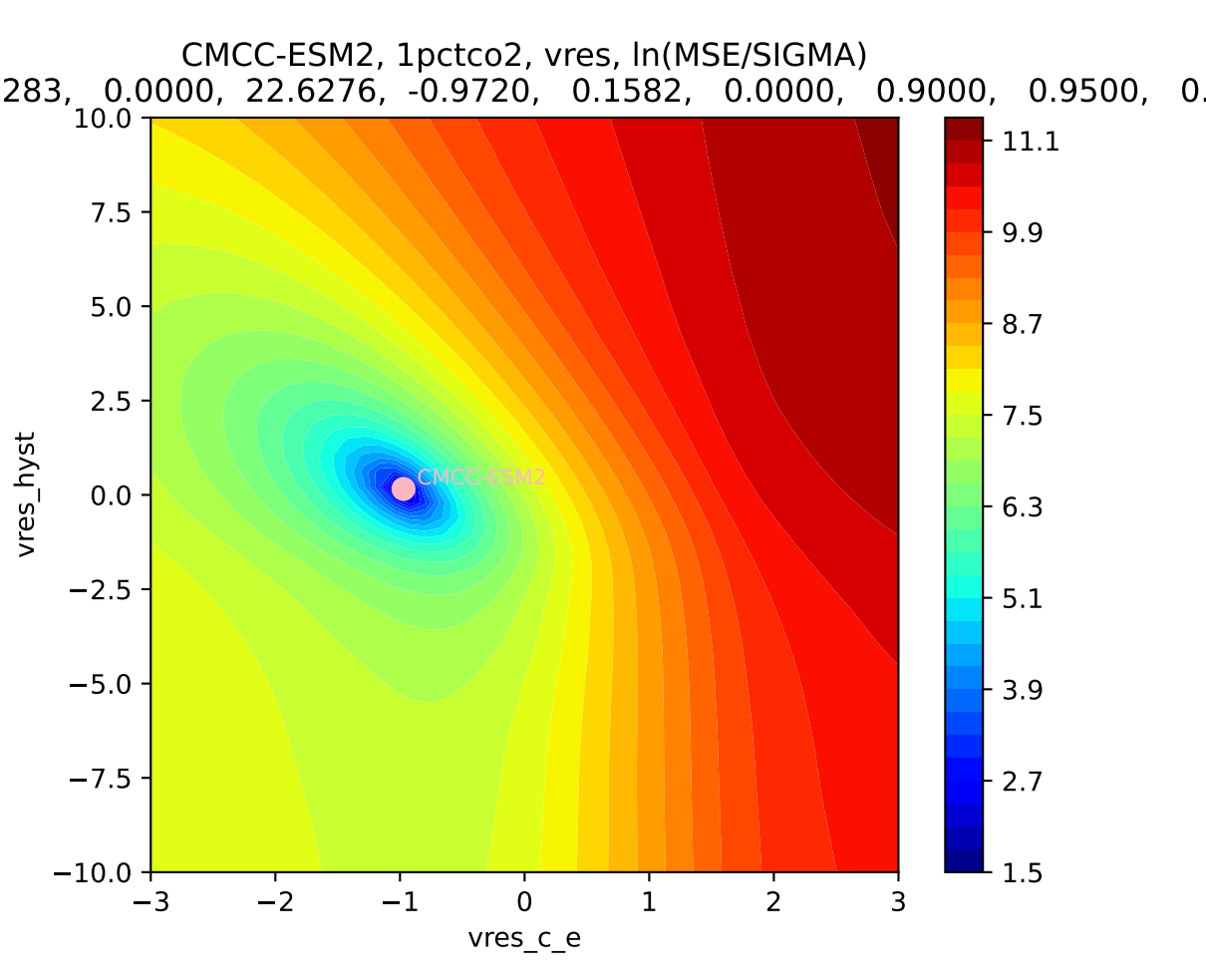

CMCC-ESM2, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
ΔT

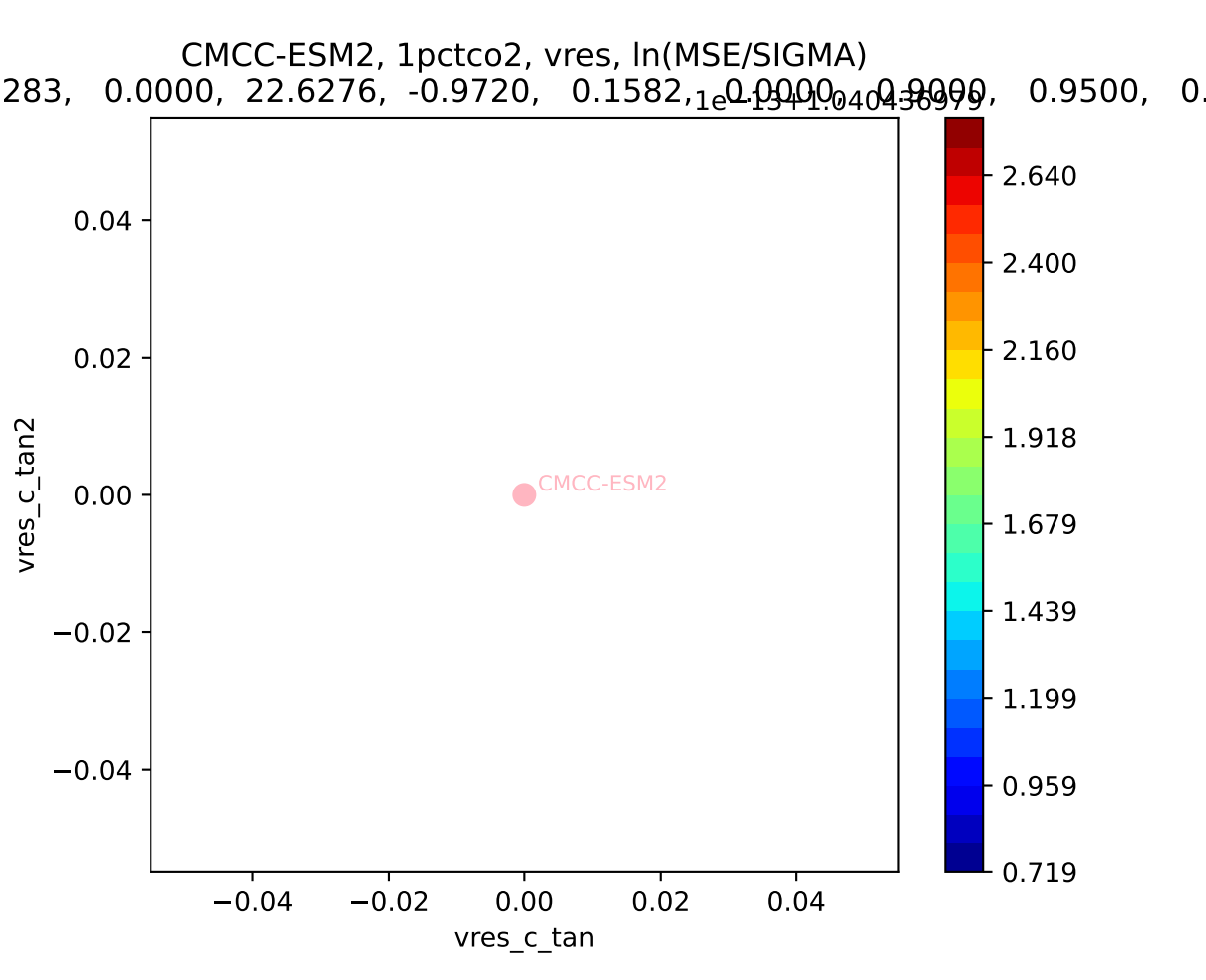

CMCC-ESM2, 1pctco2, vres
ESM
Fit
vres
c_atm

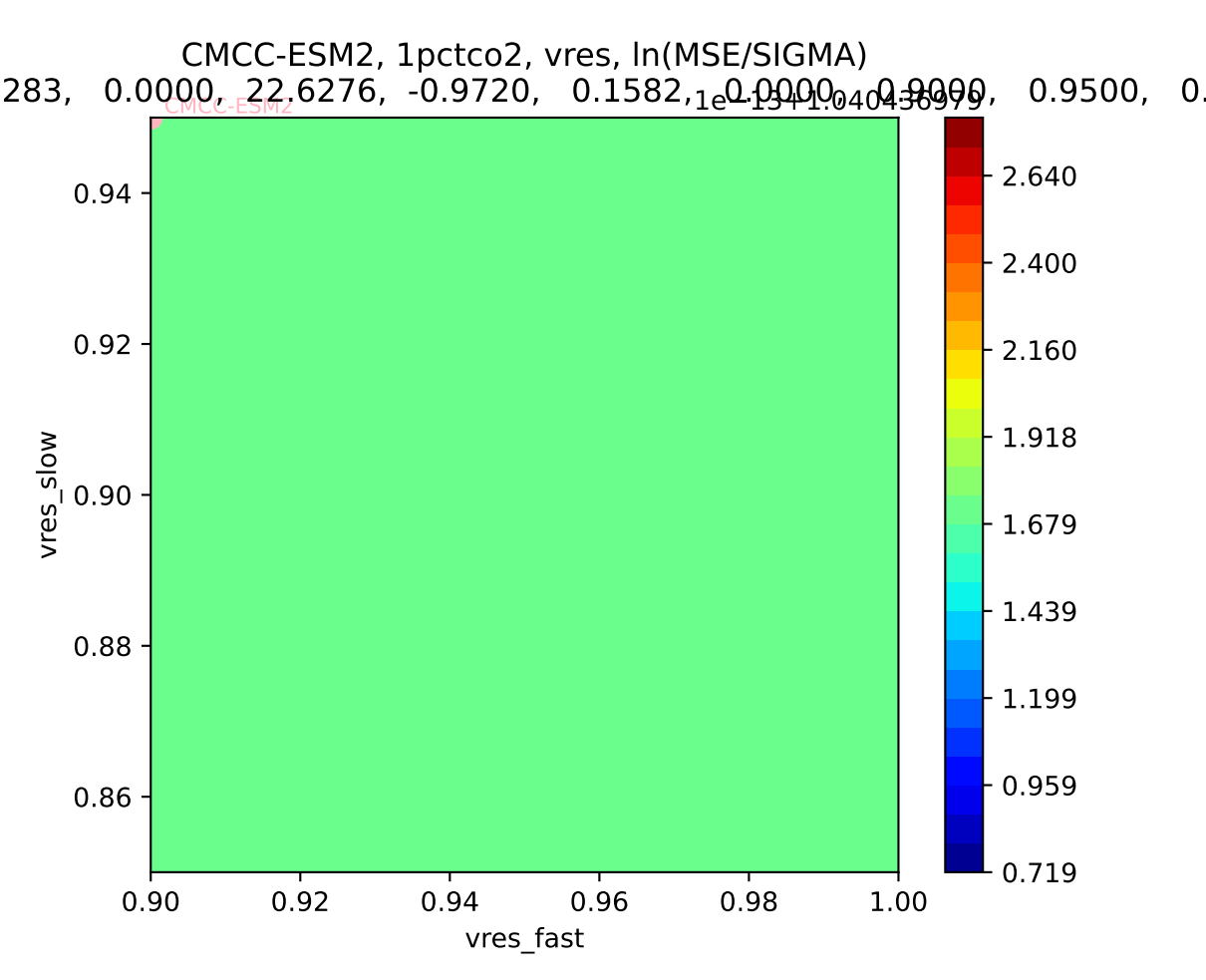

CMCC-ESM2, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
c_atm

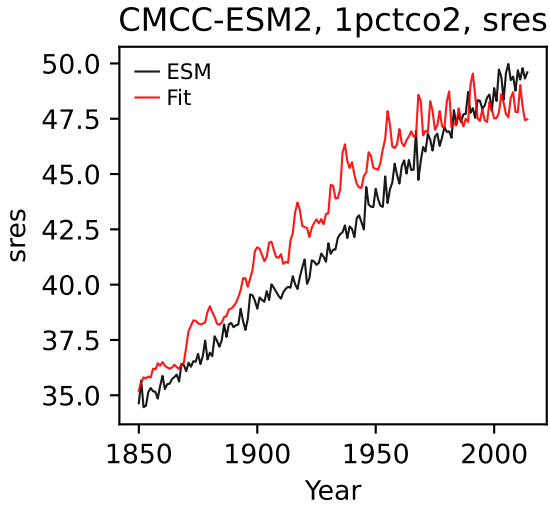

CMCC-ESM2, 1pctco2, vres, ln(MSE/SIGMA)
283, 0.0000, 22.6276, -0.9720, 0.1582, 0.0000, 0.9000, 0.9500, 0.
CMCC-ESM2
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
10.8
9.6
8.4
7.2
6.0
4.8
3.6
2.4
1.2

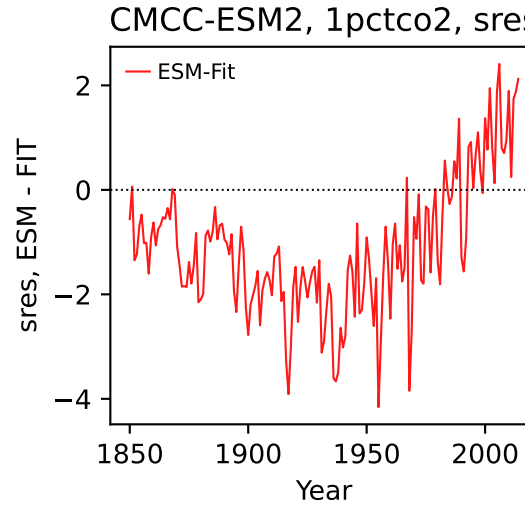

CMCC-ESM2, 1pctco2, vres, ln(MSE/SIGMA)
283, 0.0000, 22.6276, -0.9720, 0.1582, 0.0000, 0.9000, 0.9500, 0.
vres_c_half
vres_c_l
CMCC-ESM2
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
10.4
9.2
8.0
6.8
5.6
4.4
3.2
2.0
0.8

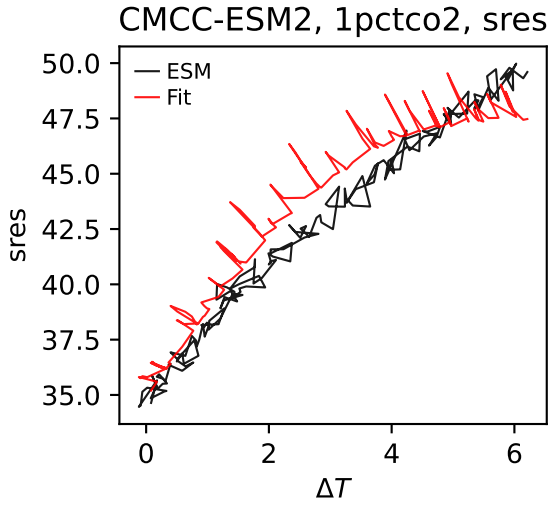

CMCC-ESM2, 1pctco2, vres, ln(MSE/SIGMA)
283, 0.0000, 22.6276, -0.9720, 0.1582, 0.0000, 0.9000, 0.9500, 0.
CMCC-ESM2
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
11.1
9.9
8.7
7.5
6.3
5.1
3.9
2.7
1.5

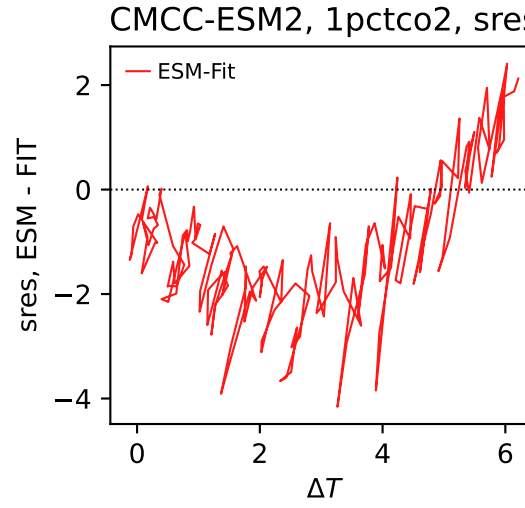

CMCC-ESM2, 1pctco2, vres, ln(MSE/SIGMA)
283, 0.0000, 22.6276, -0.9720, 0.1582, 0.0000, 0.9000, 0.9500, 0.
1e-13 1.040436979
CMCC-ESM2
vres_c_tan2
vres_c_tan
0.04
0.02
0.00
−0.02
−0.04
2.640
2.400
2.160
1.918
1.679
1.439
1.199
0.959
0.719

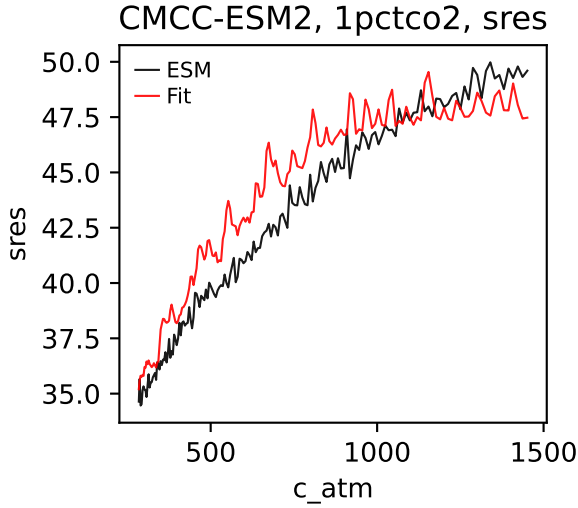

CMCC-ESM2, 1pctco2, vres, ln(MSE/SIGMA)
283, 0.0000, 22.6276, -0.9720, 0.1582, 0.0000, 0.9000, 0.9500, 0.
CMCC-ESM2
1e-13 1.040436979
0.94
0.92
0.90
0.88
0.86
vres_slow
0.90
0.92
0.94
0.96
0.98
1.00
vres_fast
2.640
2.400
2.160
1.918
1.679
1.439
1.199
0.959
0.719

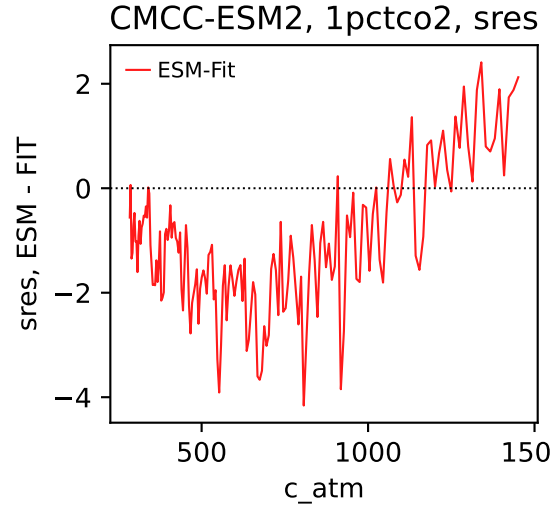

CMCC-ESM2, 1pctco2, sres
ESM
Fit
sres
Year

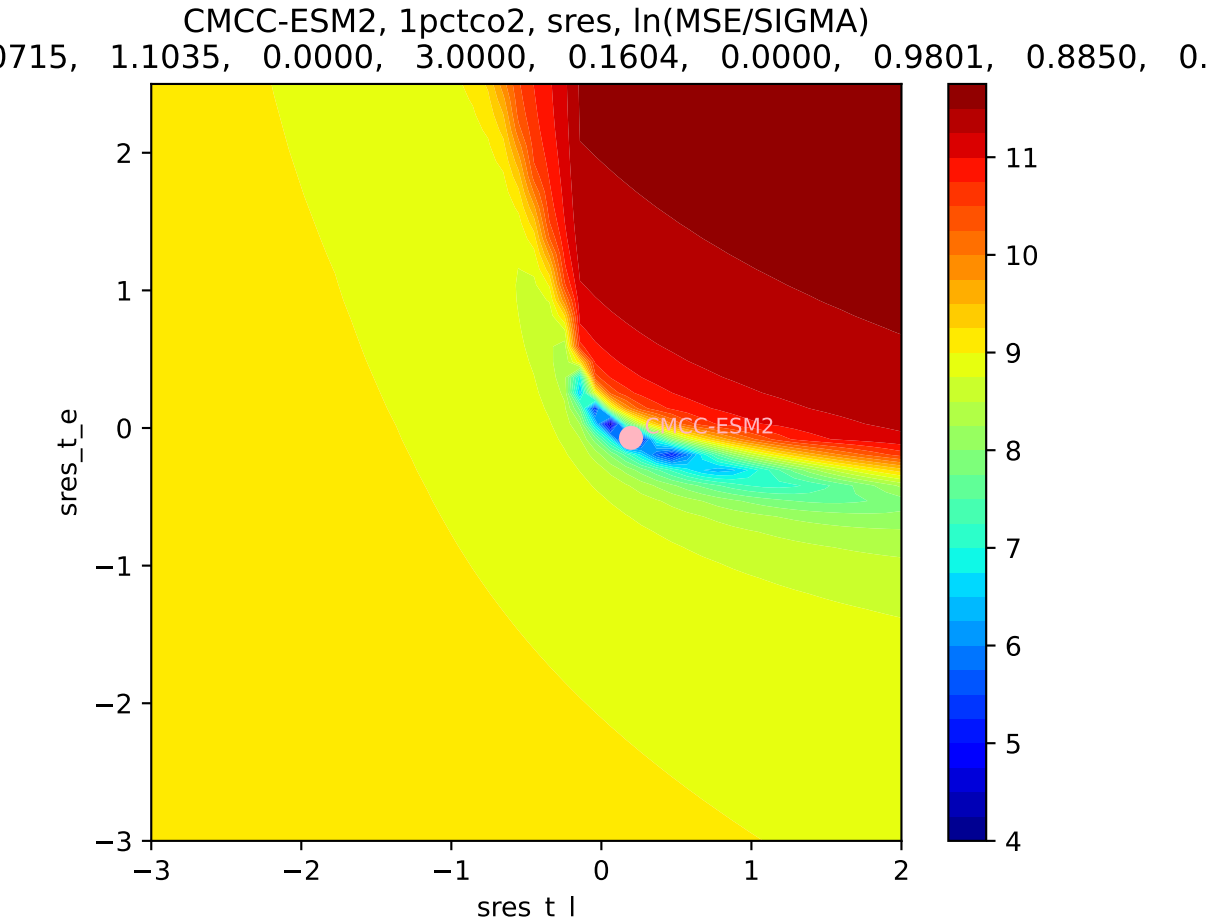

CMCC-ESM2, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
Year

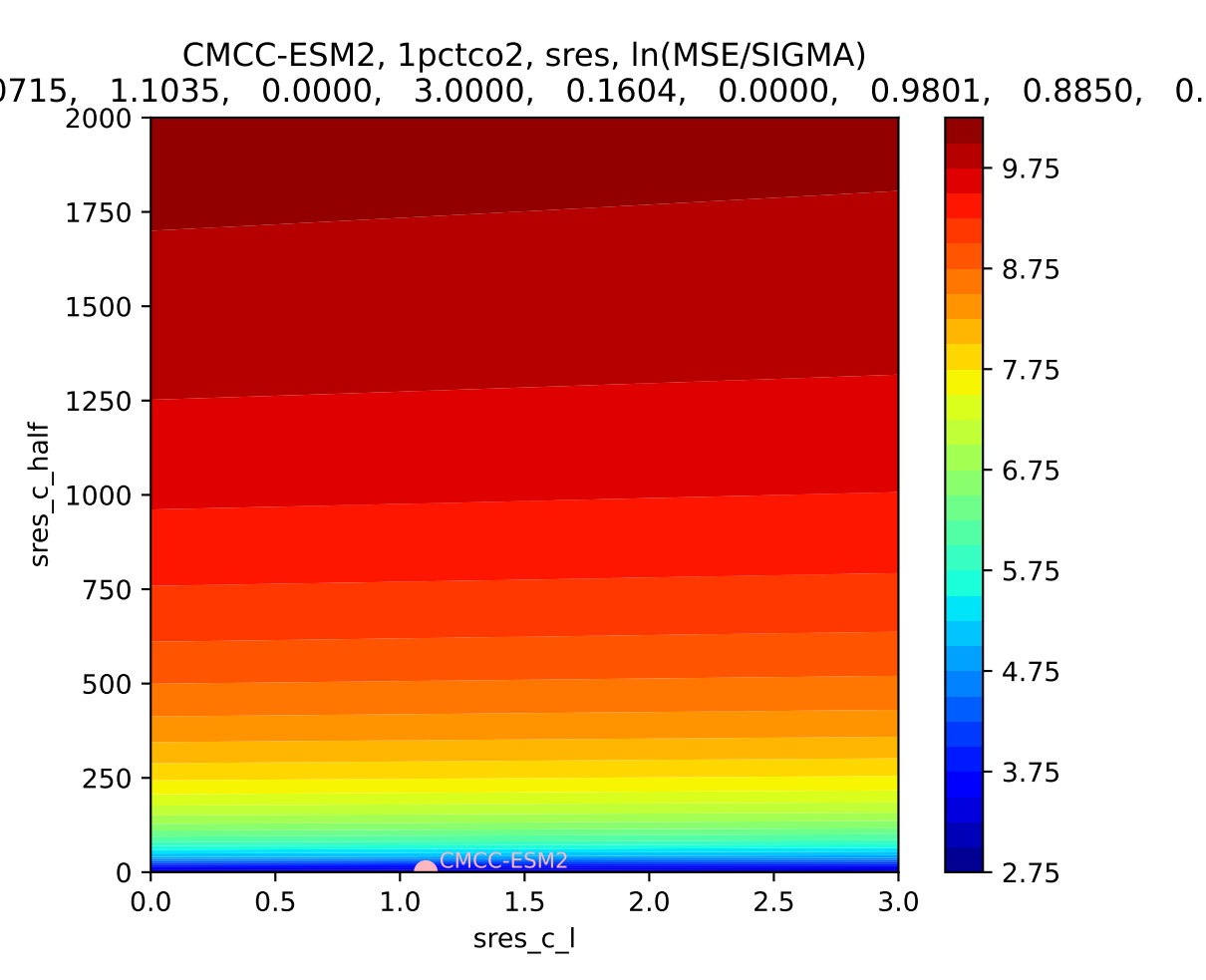

CMCC-ESM2, 1pctco2, sres
ESM
Fit
sres
ΔT

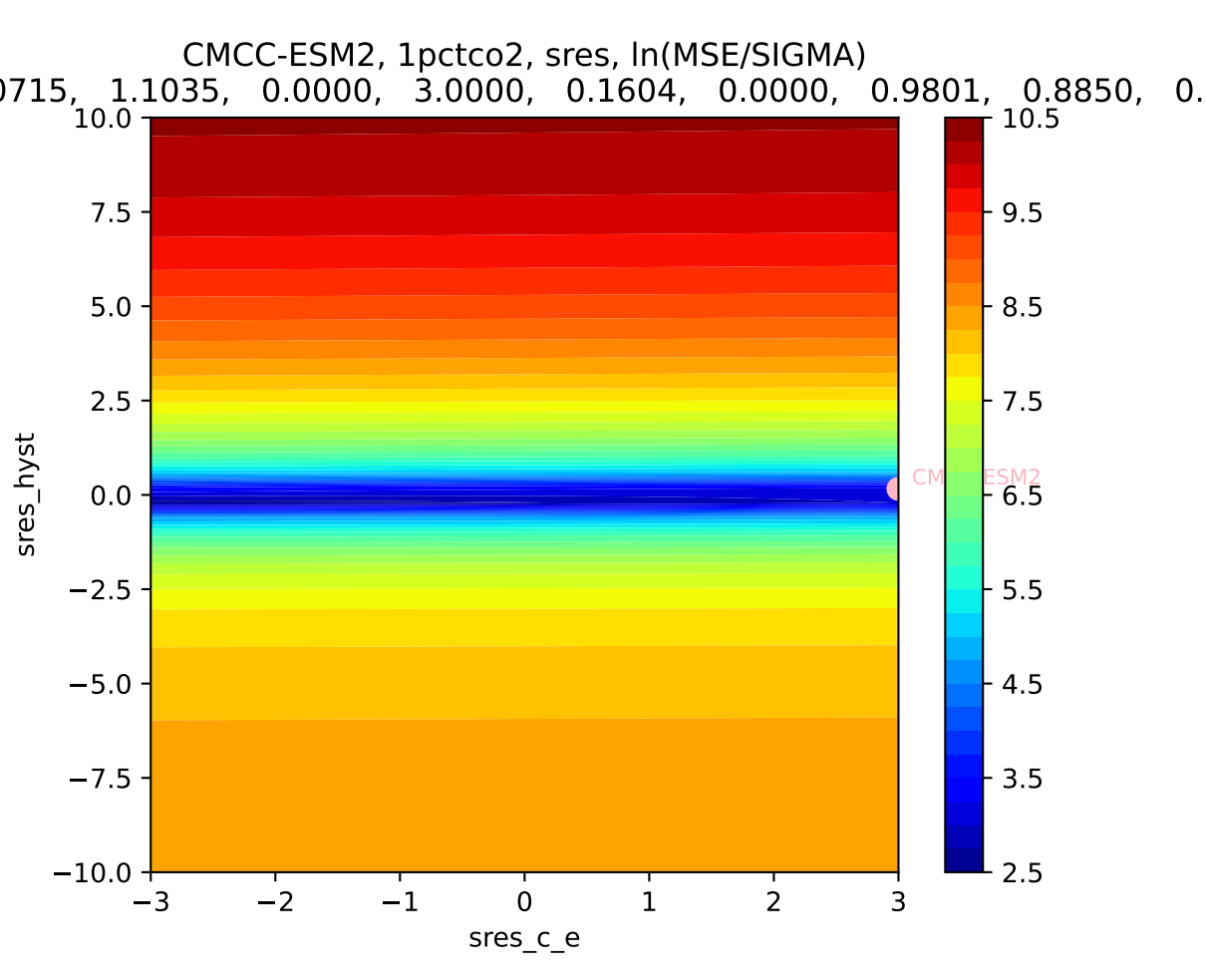

CMCC-ESM2, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
ΔT

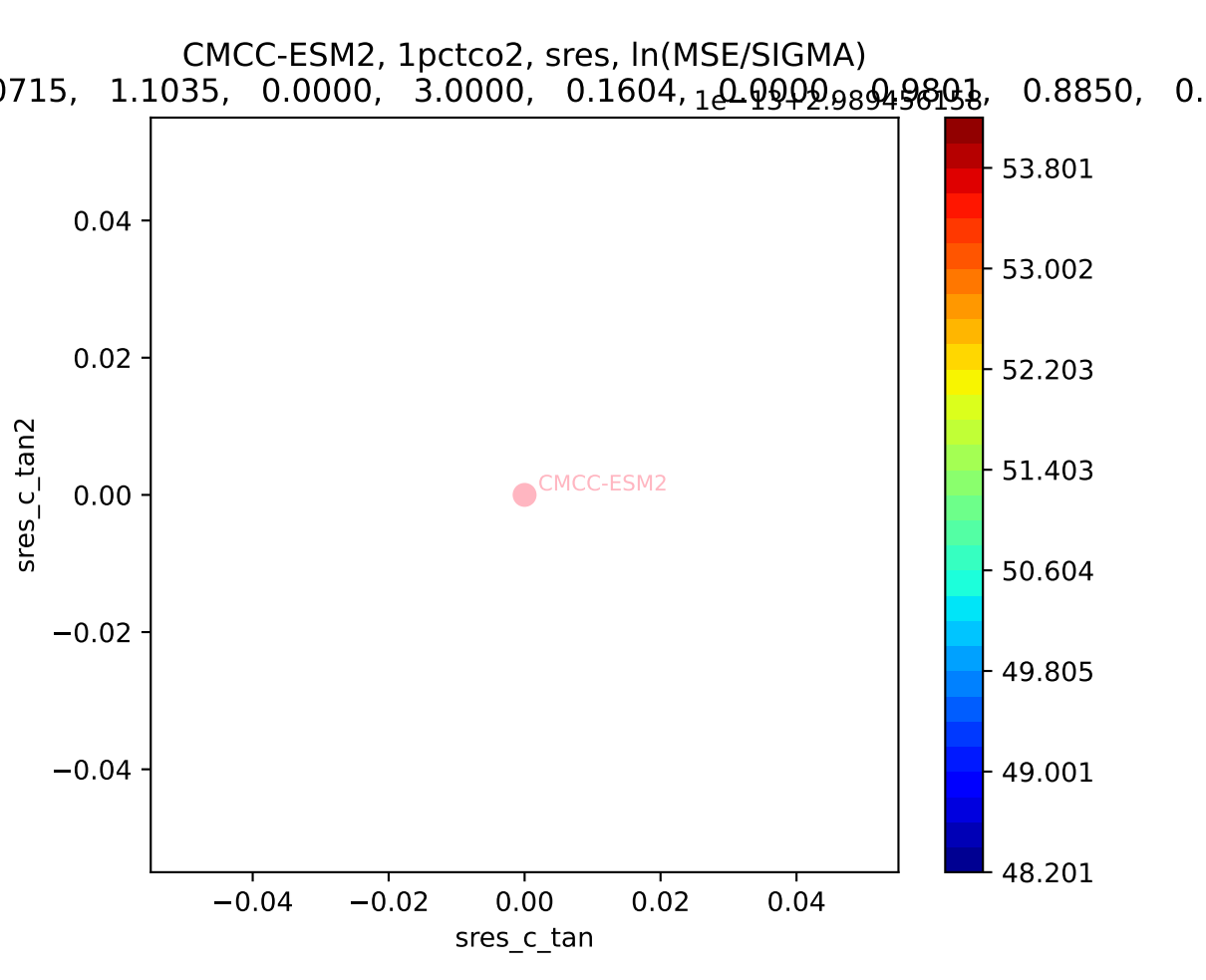

CMCC-ESM2, 1pctco2, sres
ESM
Fit
sres
c_atm

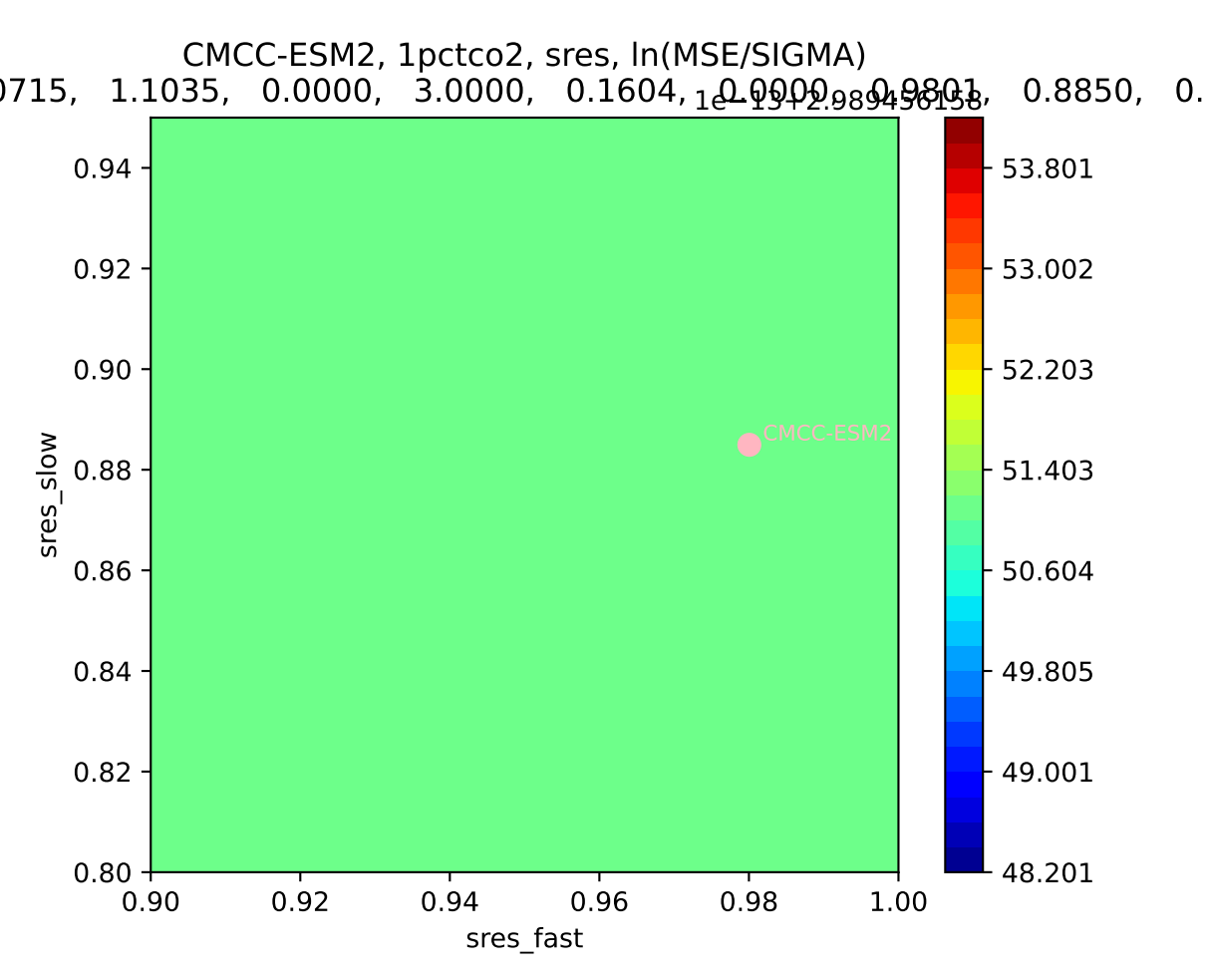

CMCC-ESM2, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
c_atm

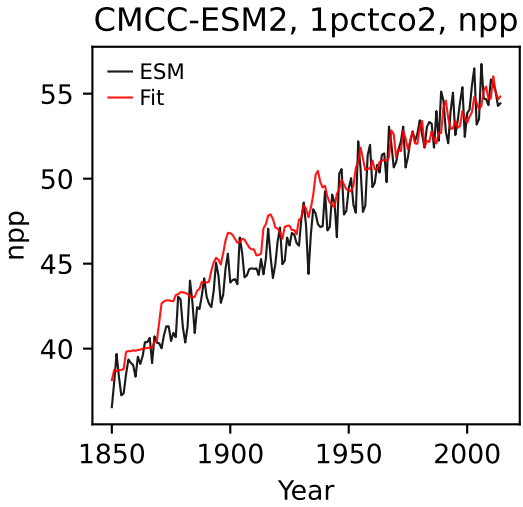

CMCC-ESM2, 1pctco2, sres, ln(MSE/SIGMA)
0715, 1.1035, 0.0000, 3.0000, 0.1604, 0.0000, 0.9801, 0.8850, 0.
CMCC-ESM2
sres_t_e
sres_t_l
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
11
10
9
8
7
6
5
4

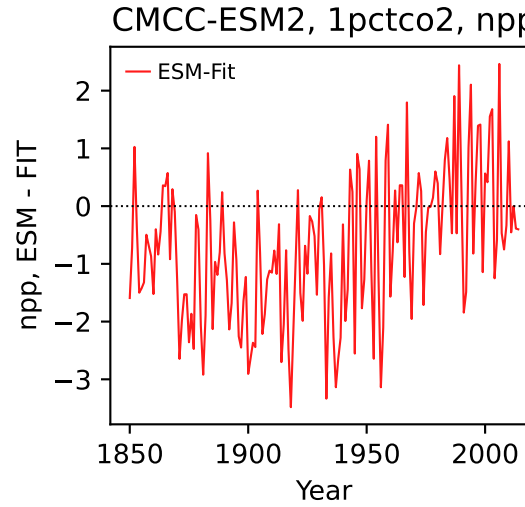

CMCC-ESM2, 1pctco2, sres, ln(MSE/SIGMA)
0715, 1.1035, 0.0000, 3.0000, 0.1604, 0.0000, 0.9801, 0.8850, 0.
sres_c_half
sres_c_l
CMCC-ESM2
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
9.75
8.75
7.75
6.75
5.75
4.75
3.75
2.75

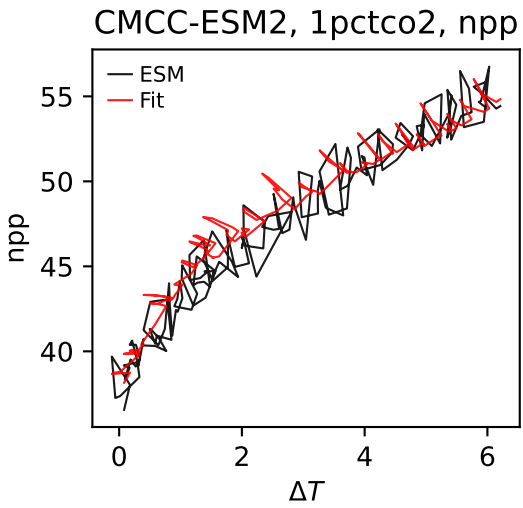

CMCC-ESM2, 1pctco2, sres, ln(MSE/SIGMA)
0715, 1.1035, 0.0000, 3.0000, 0.1604, 0.0000, 0.9801, 0.8850, 0.
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.5
9.5
8.5
7.5
6.5
5.5
4.5
3.5
2.5

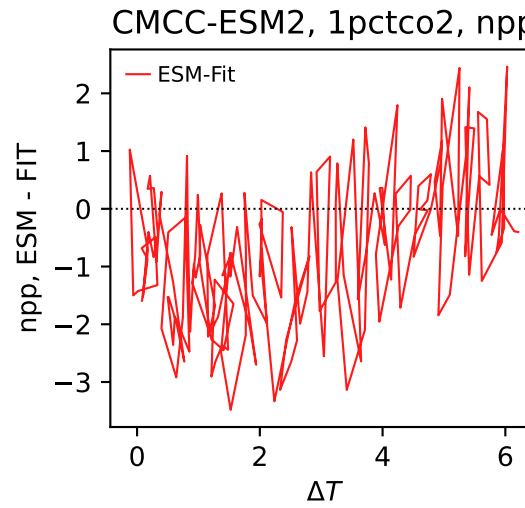

CMCC-ESM2, 1pctco2, sres, ln(MSE/SIGMA)
0715, 1.1035, 0.0000, 3.0000, 0.1604, 0.0000, 0.9801, 0.8850, 0.
1e−13+2.989456158
CMCC-ESM2
0.04
0.02
0.00
−0.02
−0.04
sres_c_tan2
−0.04
−0.02
0.00
0.02
0.04
sres_c_tan
53.801
53.002
52.203
51.403
50.604
49.805
49.001
48.201

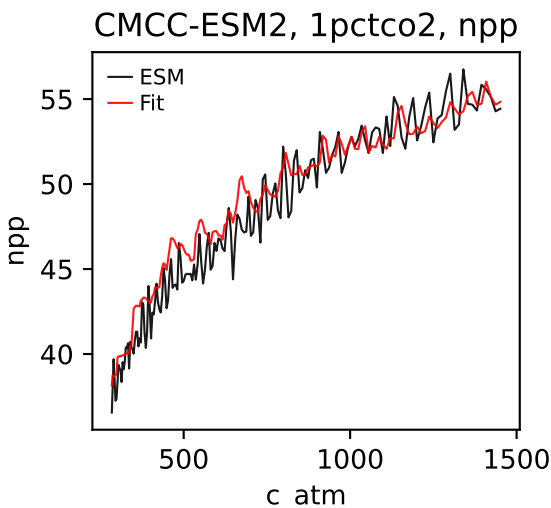

CMCC-ESM2, 1pctco2, sres, ln(MSE/SIGMA)
0715, 1.1035, 0.0000, 3.0000, 0.1604, 0.0000, 0.9801, 0.8850, 0.
1e−13+2.989456158
CMCC-ESM2
sres_slow
sres_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
53.801
53.002
52.203
51.403
50.604
49.805
49.001
48.201

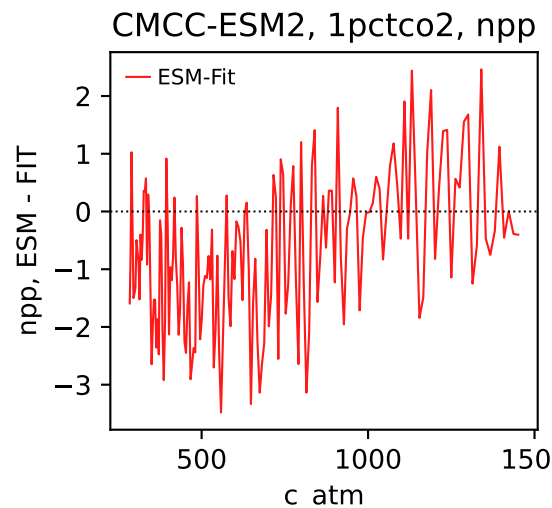

CMCC-ESM2, 1pctco2, npp
ESM
Fit
npp
Year

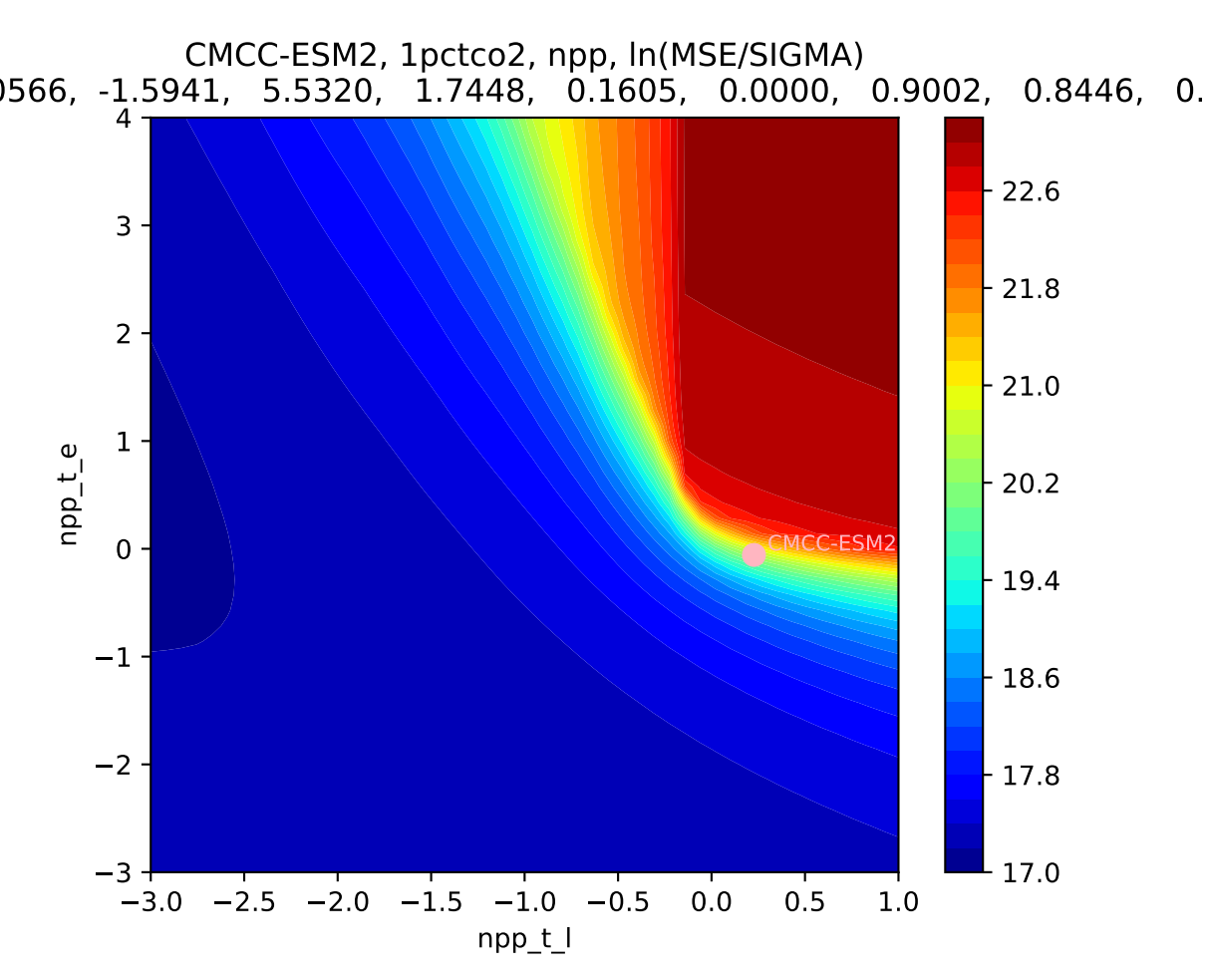

CMCC-ESM2, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
Year

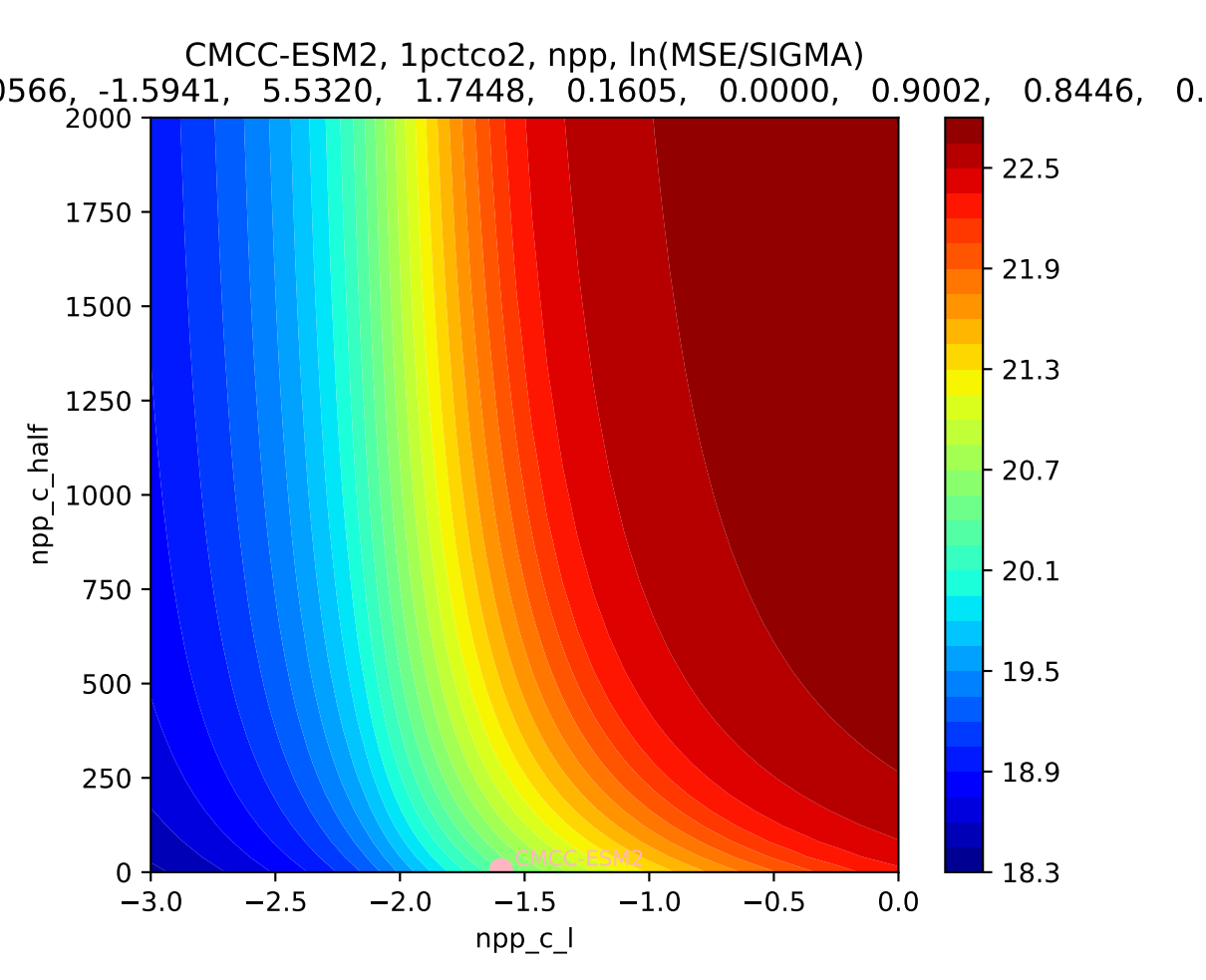

CMCC-ESM2, 1pctco2, npp
ESM
Fit
npp
ΔT

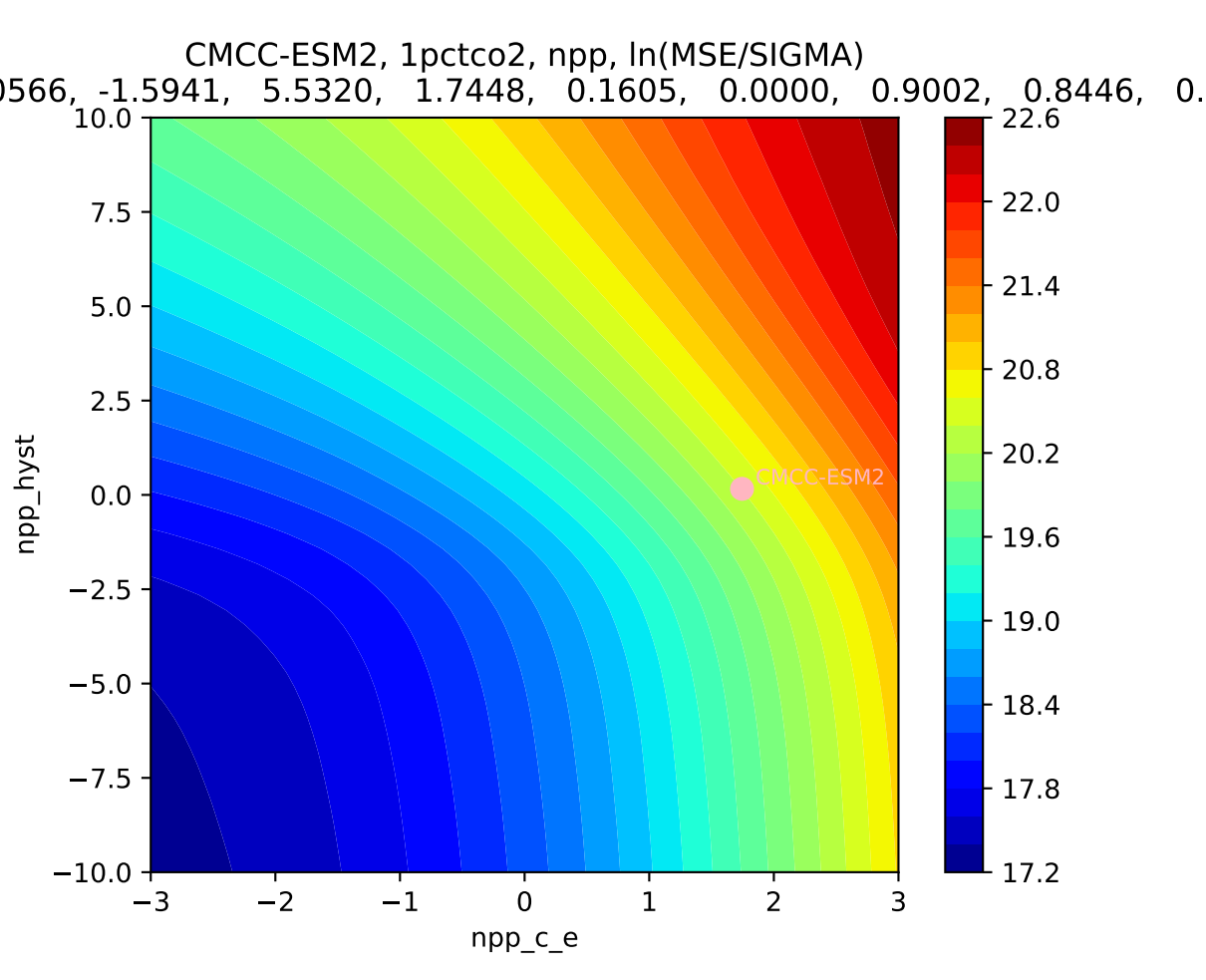

CMCC-ESM2, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
ΔT

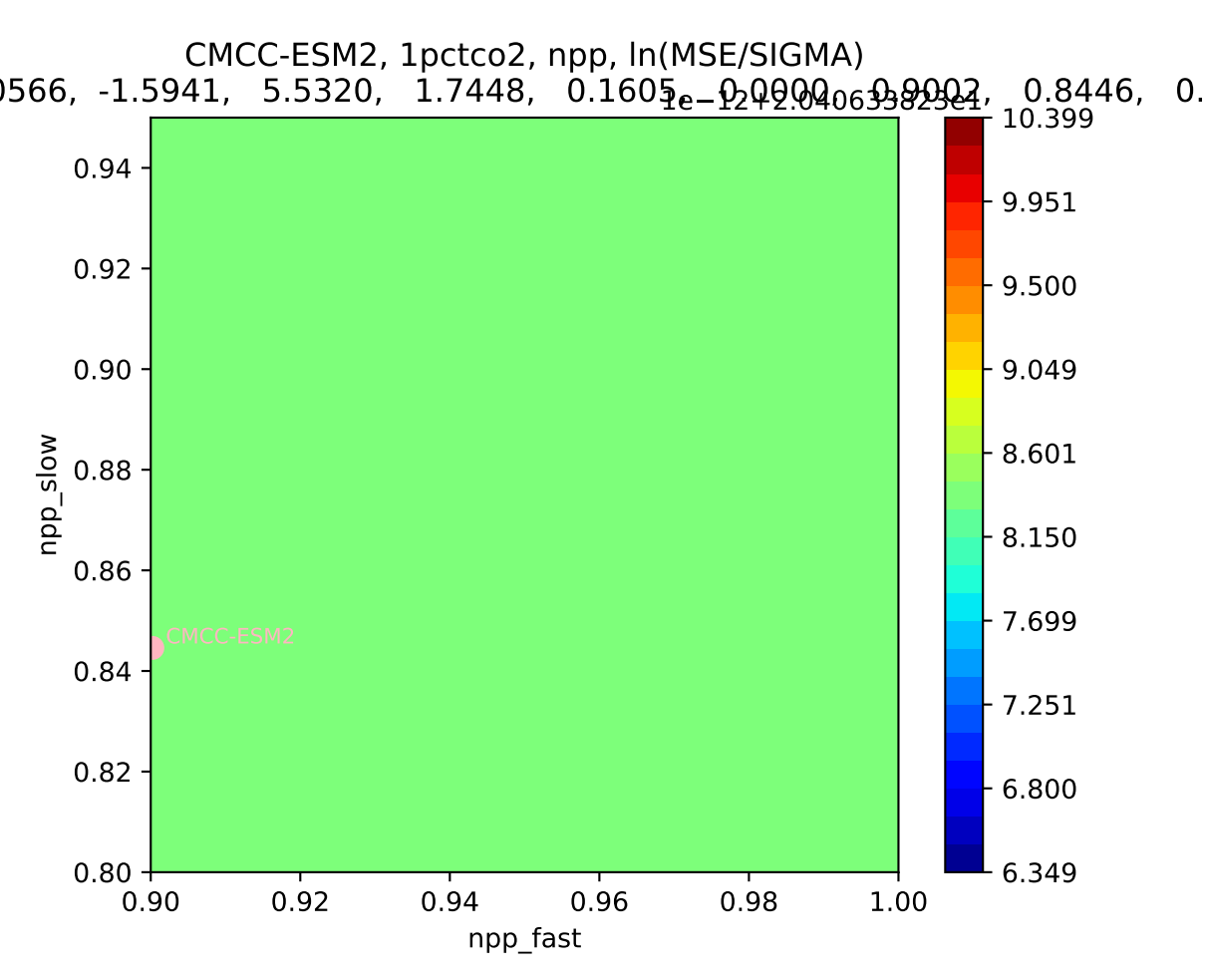

CMCC-ESM2, 1pctco2, npp
ESM
Fit
npp
c_atm

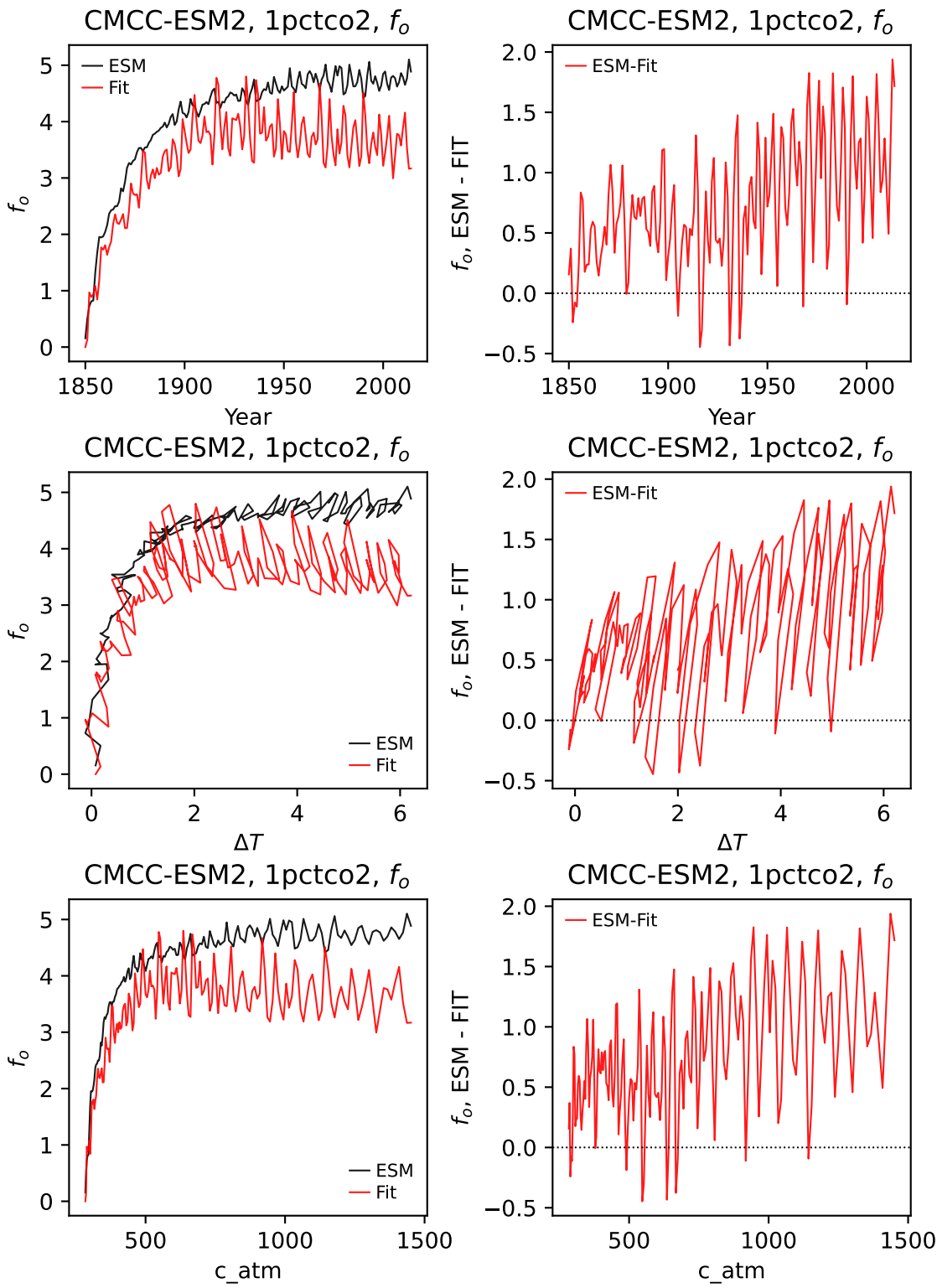

CMCC-ESM2, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
c_atm

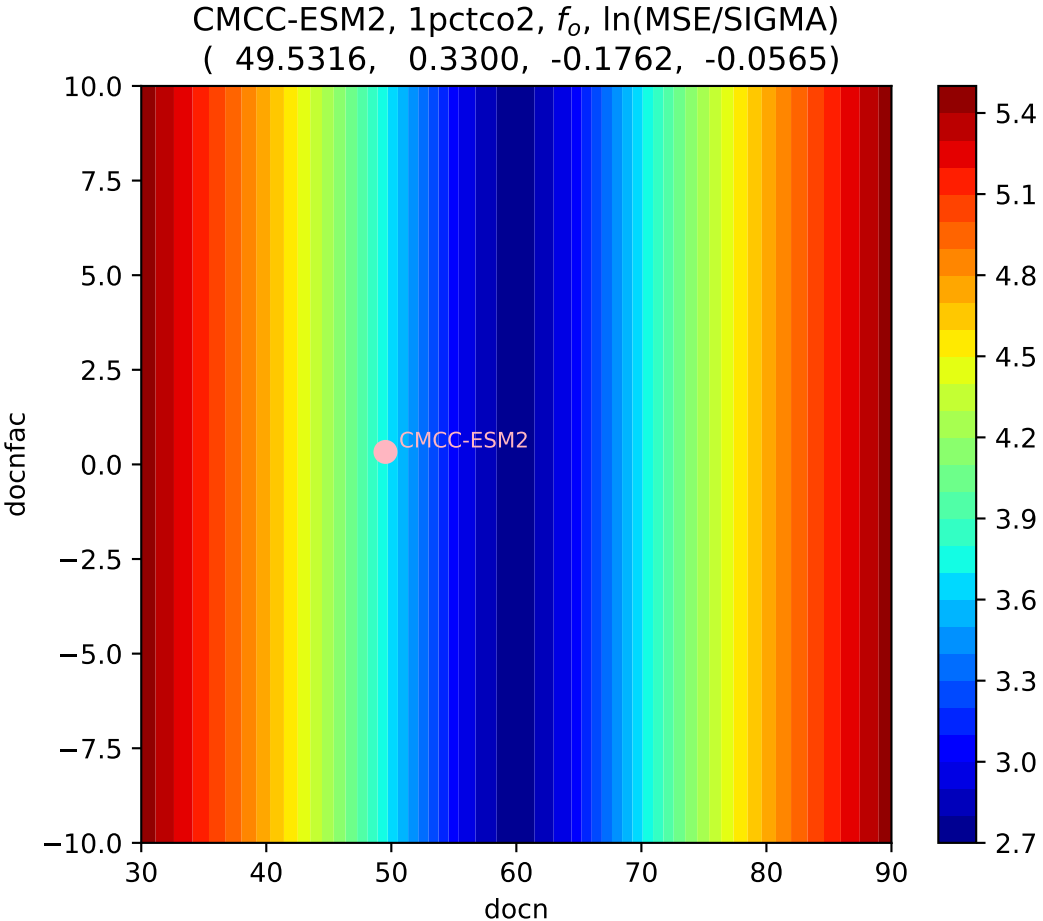

CMCC-ESM2, 1pctco2, npp, ln(MSE/SIGMA)
0566, -1.5941, 5.5320, 1.7448, 0.1605, 0.0000, 0.9002, 0.8446, 0.
CMCC-ESM2
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
22.6
21.8
21.0
20.2
19.4
18.6
17.8
17.0

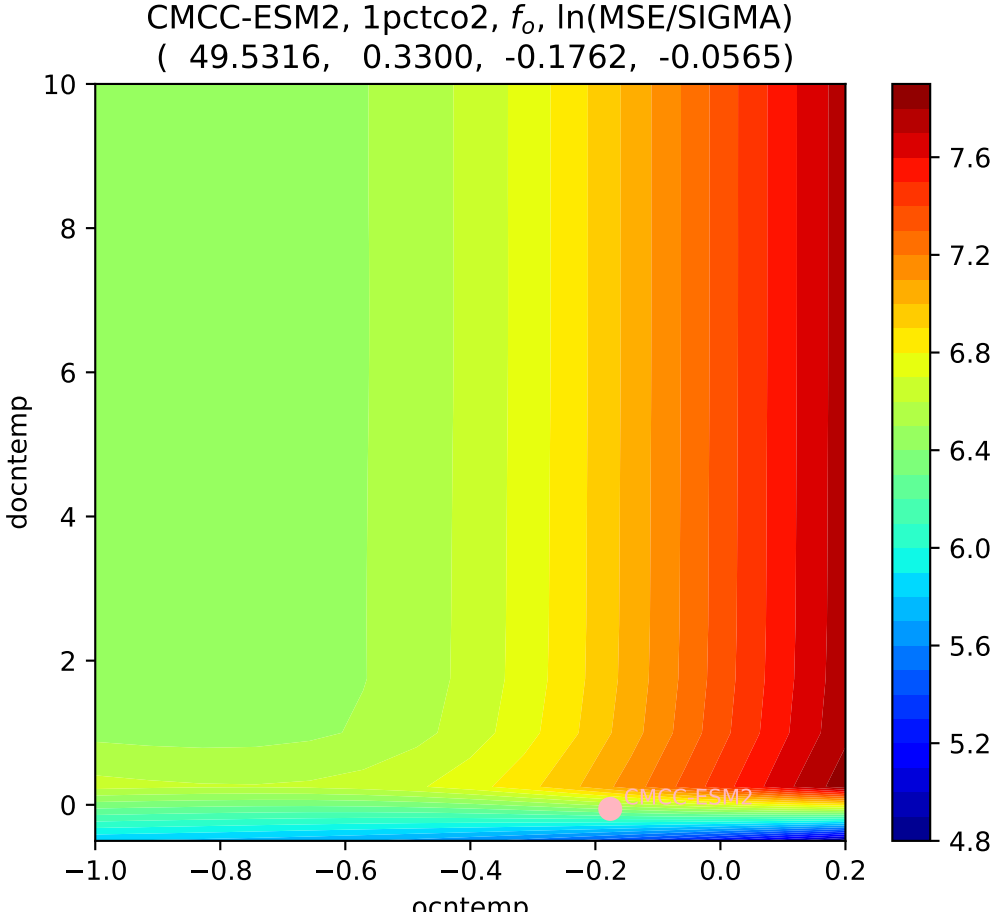

CMCC-ESM2, 1pctco2, npp, ln(MSE/SIGMA)
0566, -1.5941, 5.5320, 1.7448, 0.1605, 0.0000, 0.9002, 0.8446, 0.
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
npp_c_l
22.5
21.9
21.3
20.7
20.1
19.5
18.9
18.3
CMCC-ESM2


CMCC-ESM2, 1pctco2, npp, ln(MSE/SIGMA)
0566, -1.5941, 5.5320, 1.7448, 0.1605, 0.0000, 0.9002, 0.8446, 0.
CMCC-ESM2
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.6
22.0
21.4
20.8
20.2
19.6
19.0
18.4
17.8
17.2


CMCC-ESM2, 1pctco2, npp, ln(MSE/SIGMA)
0566, -1.5941, 5.5320, 1.7448, 0.1605, 0.0000, 0.9002, 0.8446, 0.
1e−12+2.040633823e1
10.399
9.951
9.500
9.049
8.601
8.150
7.699
7.251
6.800
6.349
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
npp_slow
CMCC-ESM2
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast


CMCC-ESM2, 1pctco2, f_o
ESM
Fit
f_o
Year
CMCC-ESM2, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
Year
CMCC-ESM2, 1pctco2, f_o
ESM
Fit
f_o
ΔT
CMCC-ESM2, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
ΔT
CMCC-ESM2, 1pctco2, f_o
ESM
Fit
f_o
c_atm
CMCC-ESM2, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
c_atm


CMCC-ESM2, 1pctco2, f_o, ln(MSE/SIGMA)
(49.5316, 0.3300, -0.1762, -0.0565)
CMCC-ESM2
docnfac
docn
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
30
40
50
60
70
80
90
5.4
5.1
4.8
4.5
4.2
3.9
3.6
3.3
3.0
2.7


CMCC-ESM2, 1pctco2, f_o, ln(MSE/SIGMA)
(49.5316, 0.3300, -0.1762, -0.0565)
10
8
6
4
2
0
docntemp
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
ocntemp
CMCC-ESM2
7.6
7.2
6.8
6.4
6.0
5.6
5.2
4.8