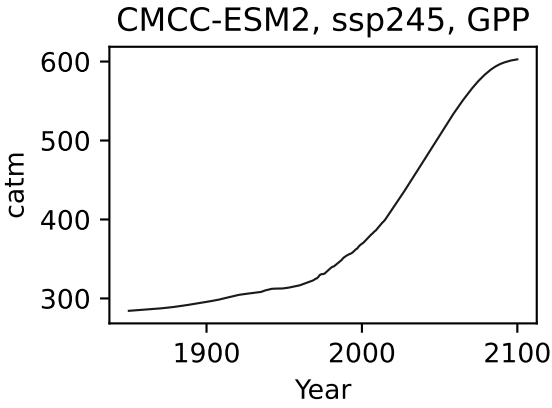
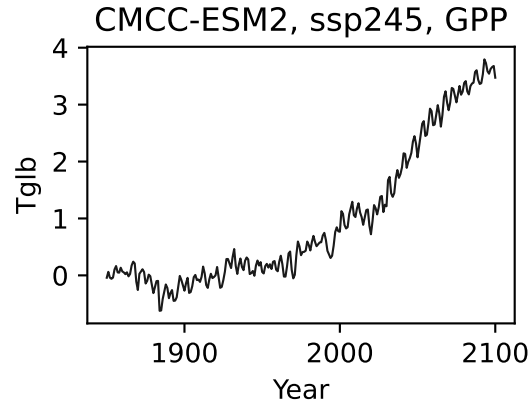
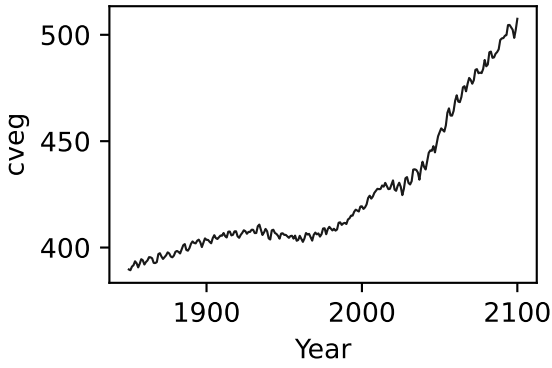
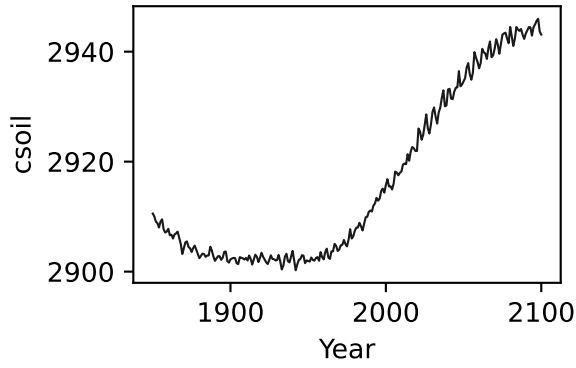
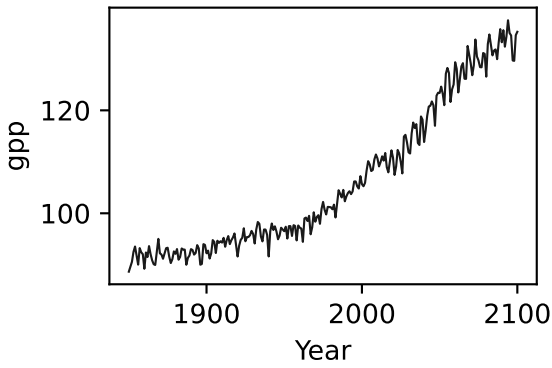
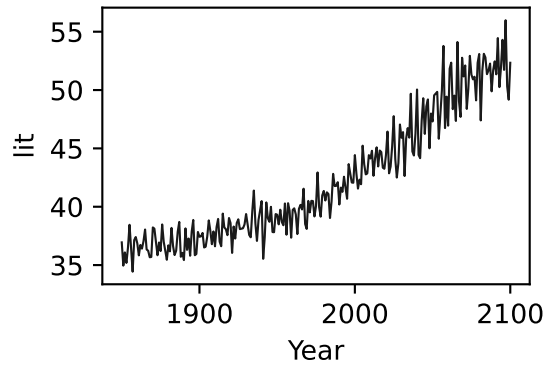

CMCC-ESM2, ssp245, GPP
catm
600
500
400
300
1900
2000
2100
Year

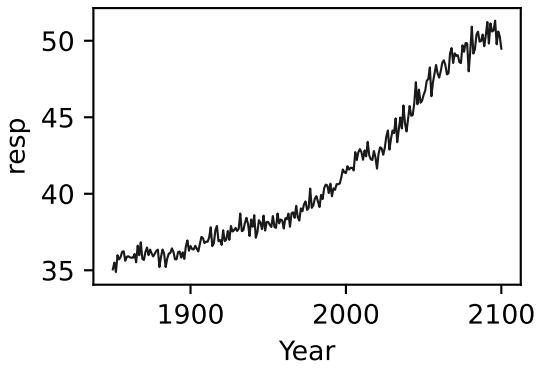

CMCC-ESM2, ssp245, GPP
Tglb
4
3
2
1
0
1900
2000
2100
Year

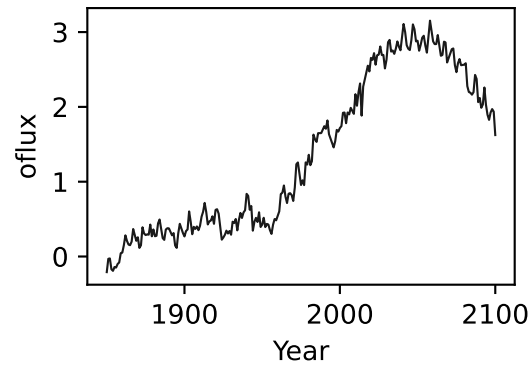

cveg
500
450
400
1900
2000
2100
Year

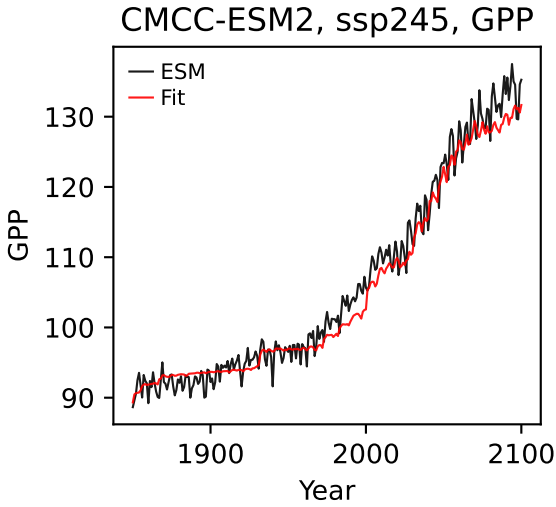

csoil
2940
2920
2900
1900
2000
2100
Year

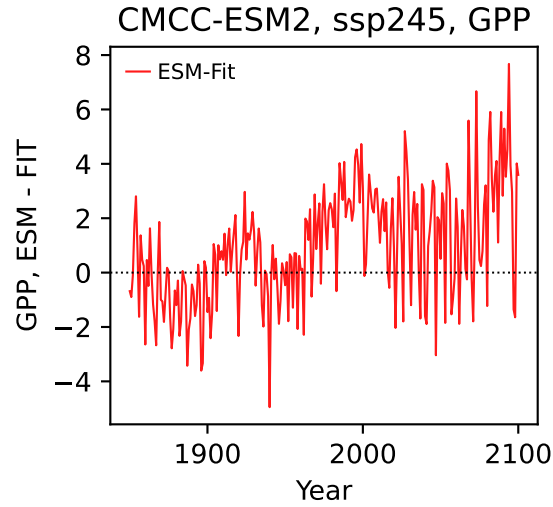

gpp
120
100
1900
2000
2100
Year

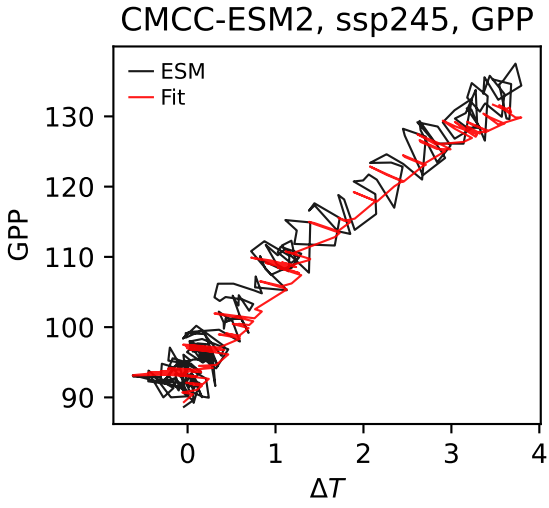

lit
55
50
45
40
35
1900
2000
2100
Year

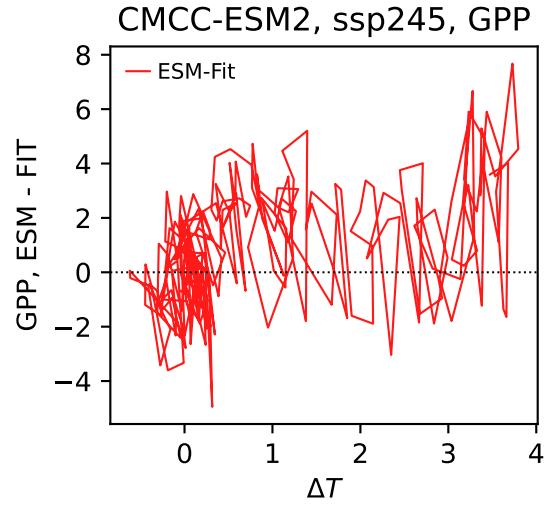

resp
50
45
40
35
1900
2000
2100
Year

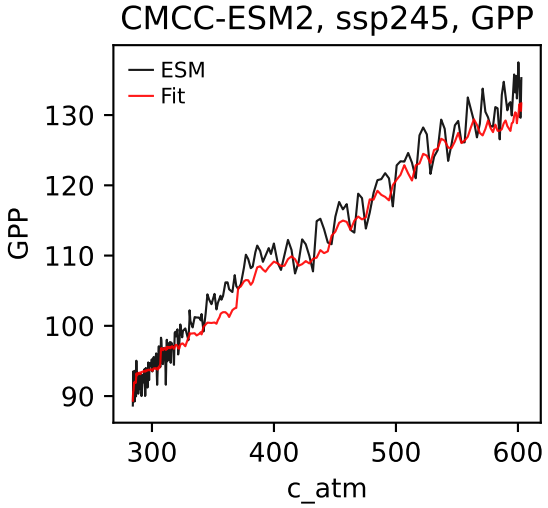

oflux
3
2
1
0
1900
2000
2100
Year

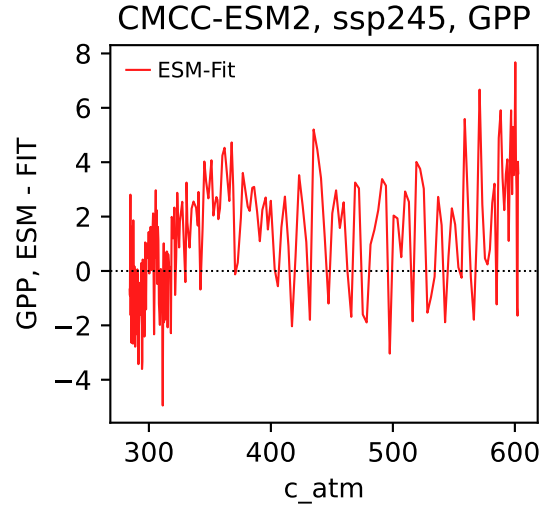

CMCC-ESM2, ssp245, GPP
ESM
Fit
GPP
Year

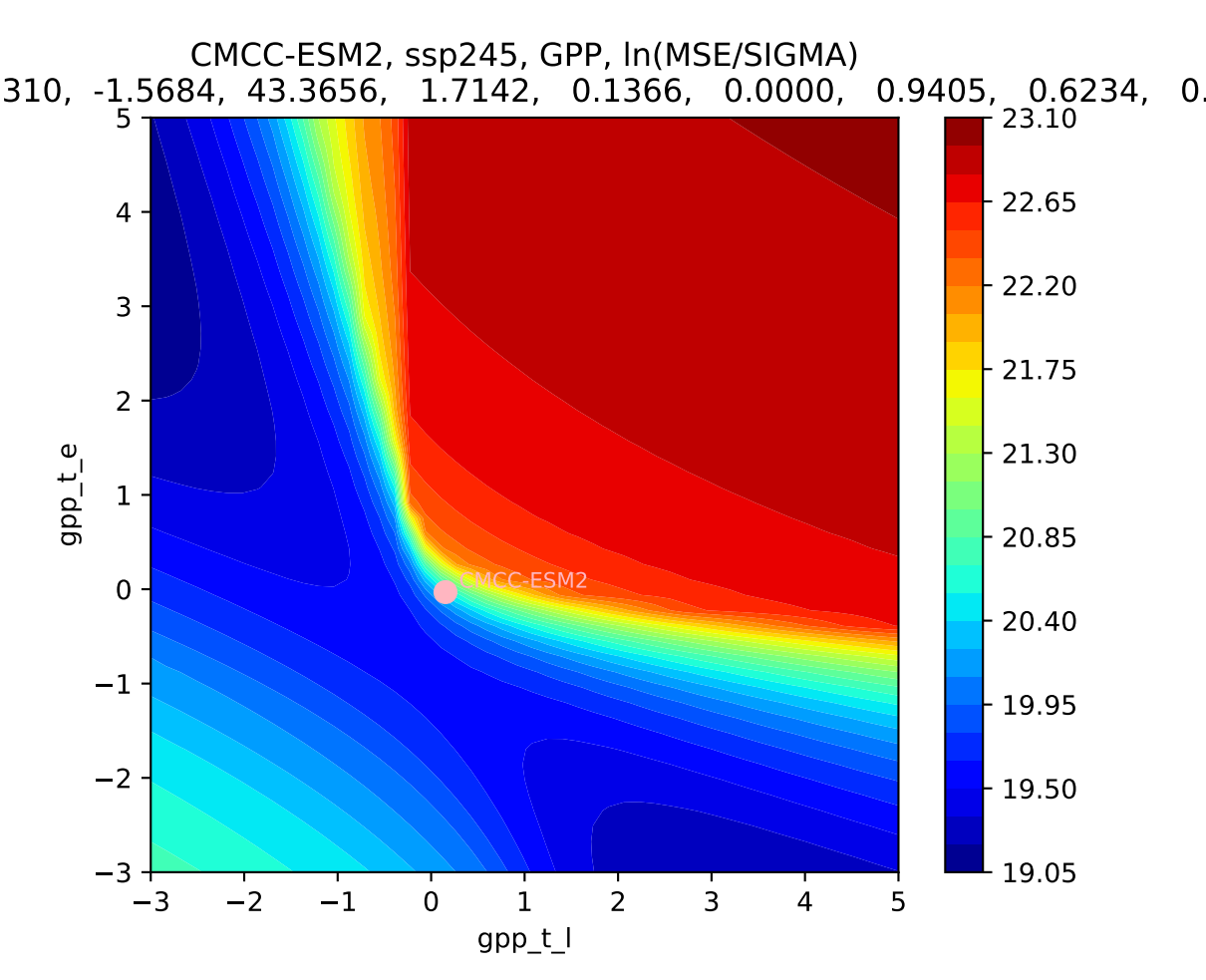

CMCC-ESM2, ssp245, GPP
ESM-Fit
GPP, ESM - FIT
Year

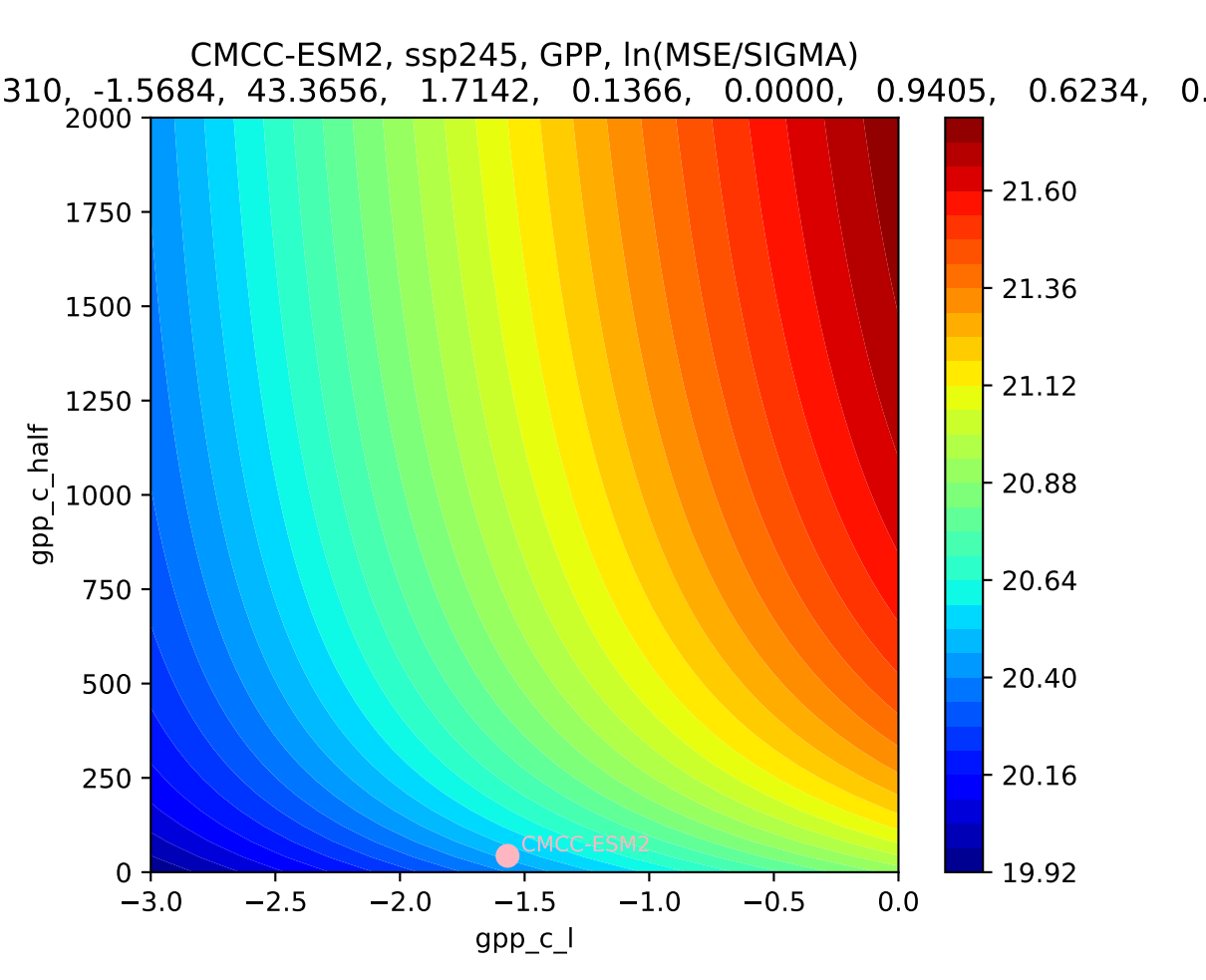

CMCC-ESM2, ssp245, GPP
ESM
Fit
GPP
ΔT

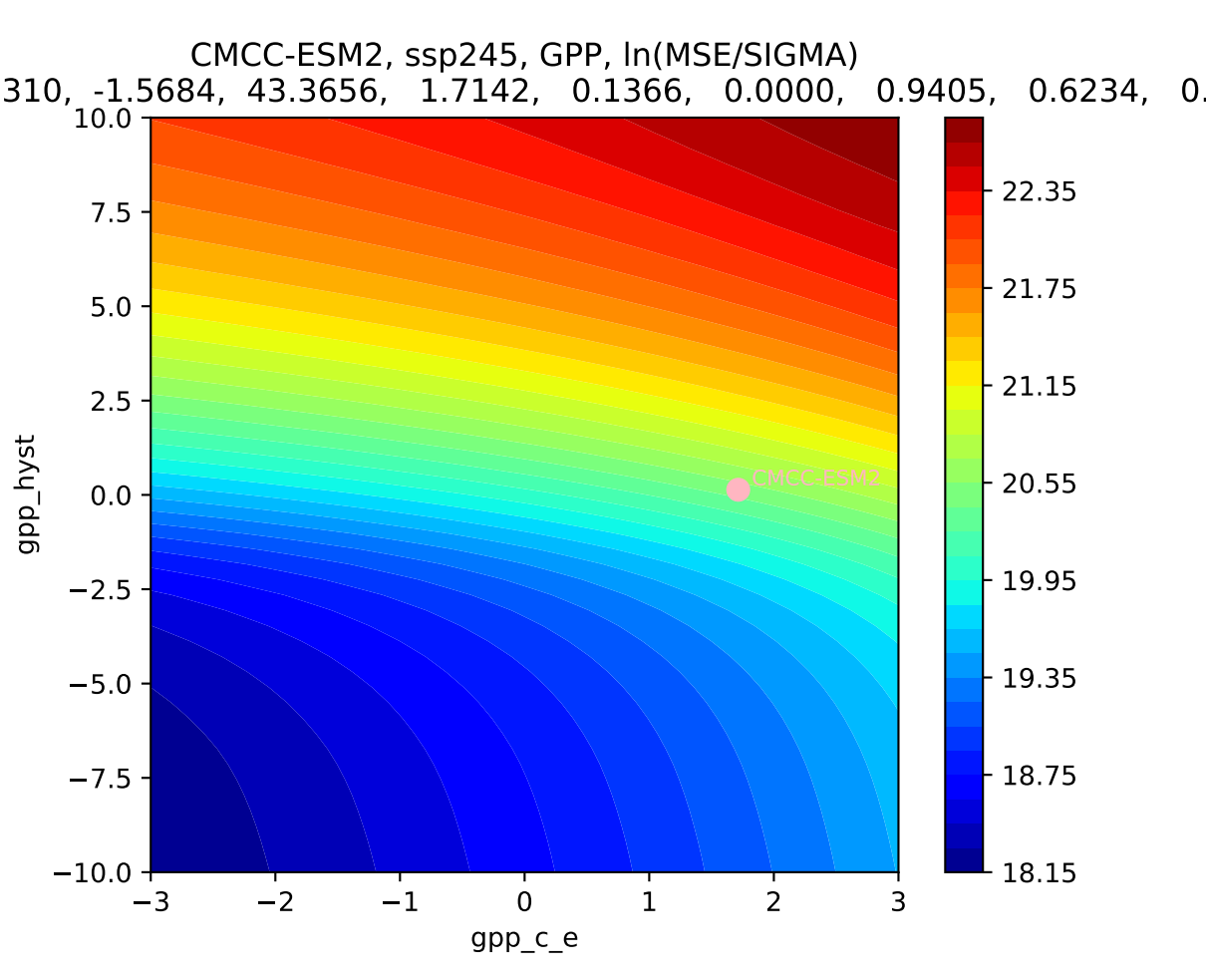

CMCC-ESM2, ssp245, GPP
ESM-Fit
GPP, ESM - FIT
ΔT

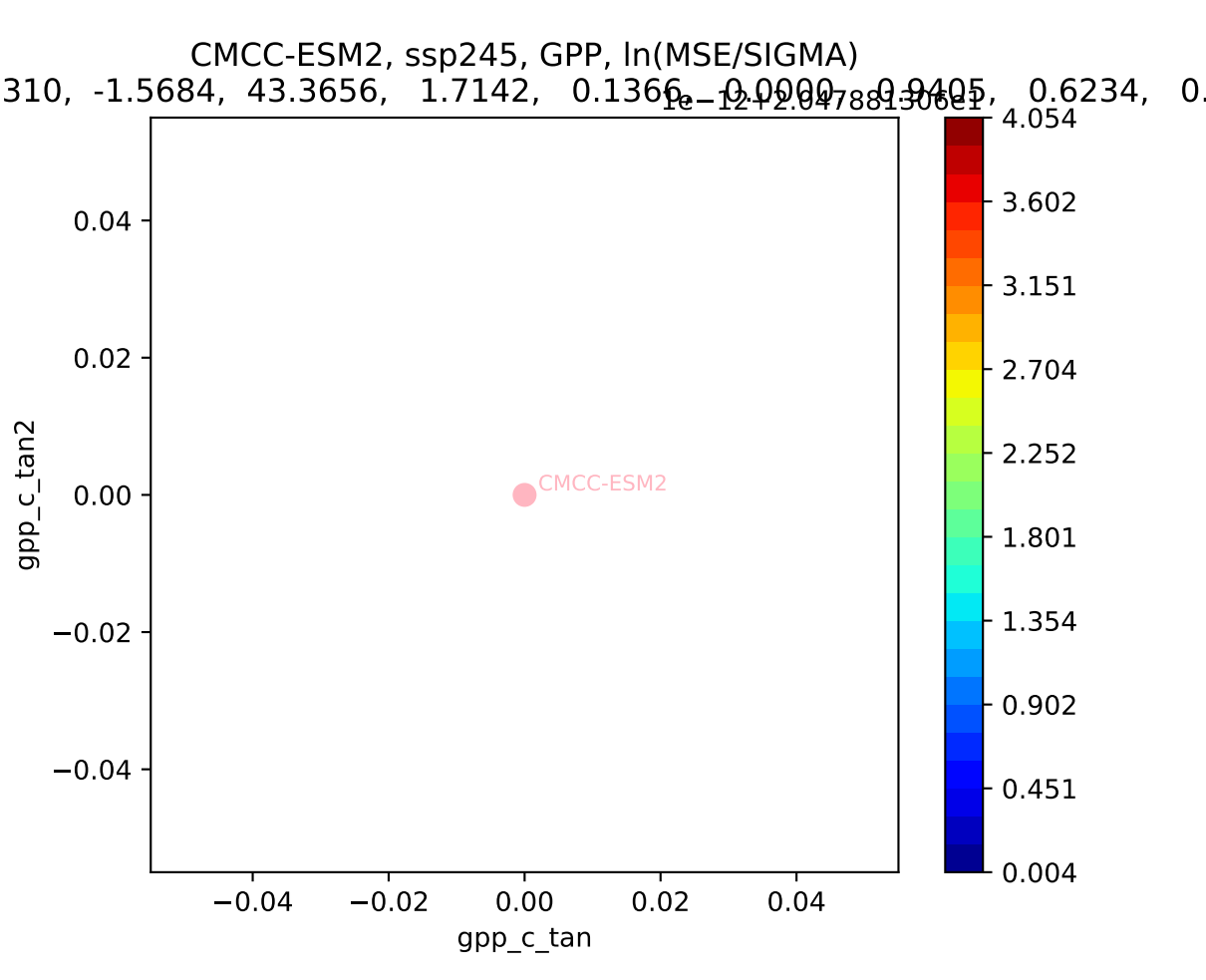

CMCC-ESM2, ssp245, GPP
ESM
Fit
GPP
c_atm

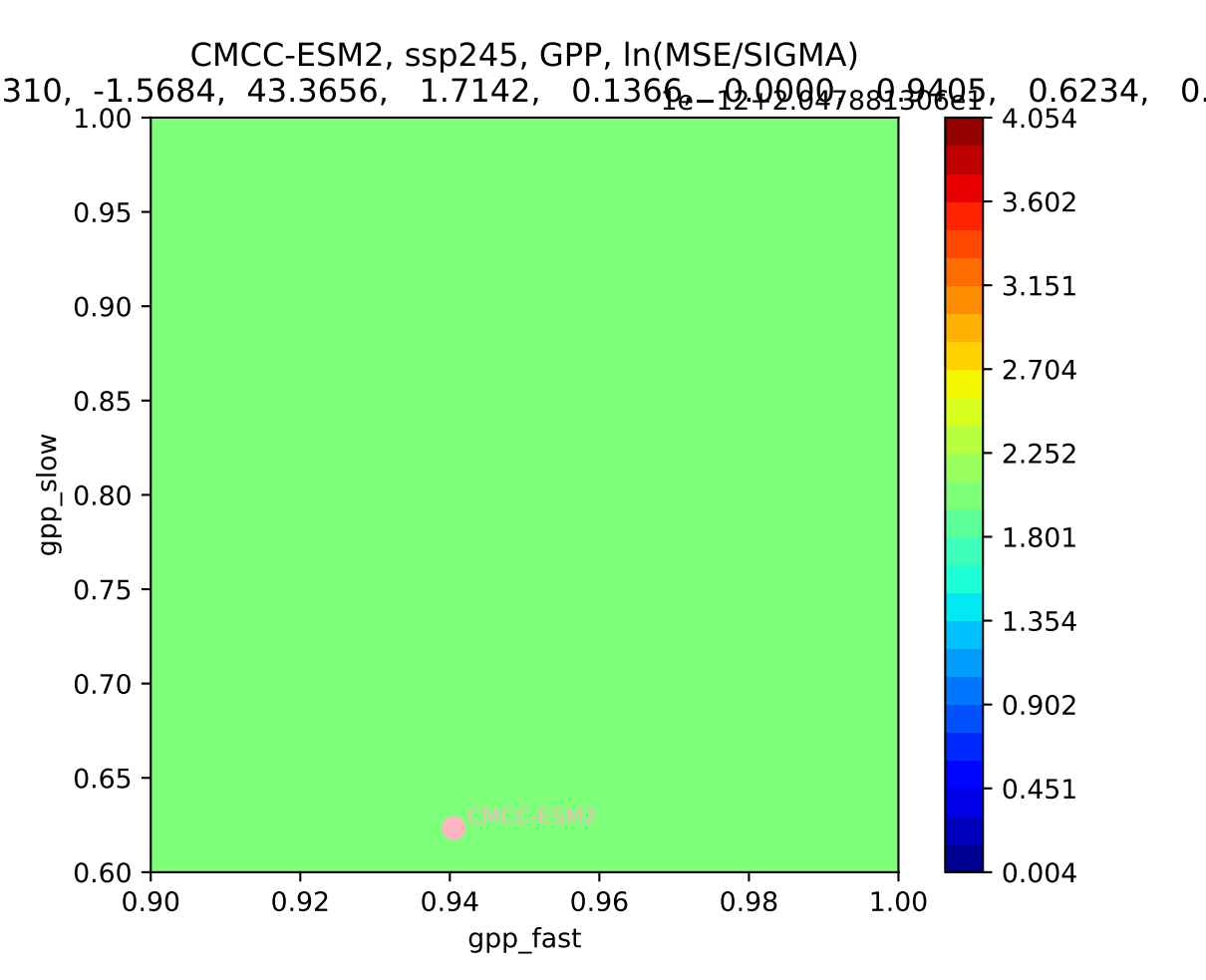

CMCC-ESM2, ssp245, GPP
ESM-Fit
GPP, ESM - FIT
c_atm

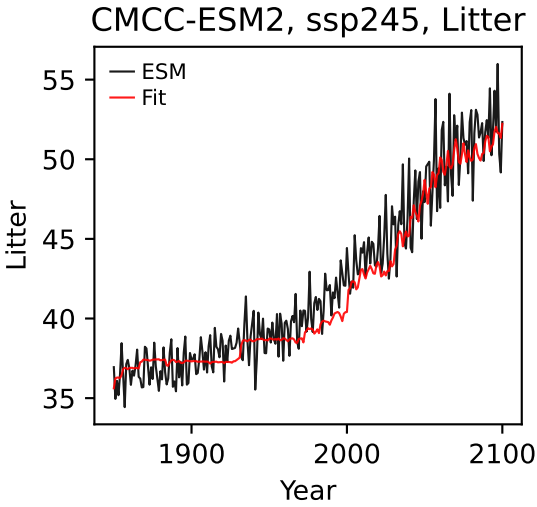

CMCC-ESM2, ssp245, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
CMCC-ESM2
gpp_t_e
gpp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
23.10
22.65
22.20
21.75
21.30
20.85
20.40
19.95
19.50
19.05

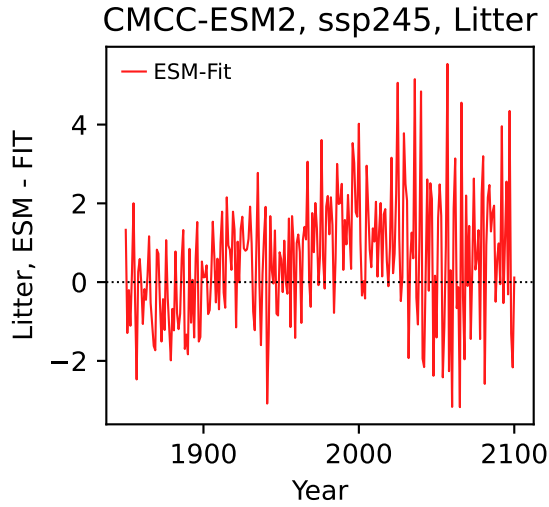

CMCC-ESM2, ssp245, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
gpp_c_half
gpp_c_l
CMCC-ESM2
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
21.60
21.36
21.12
20.88
20.64
20.40
20.16
19.92

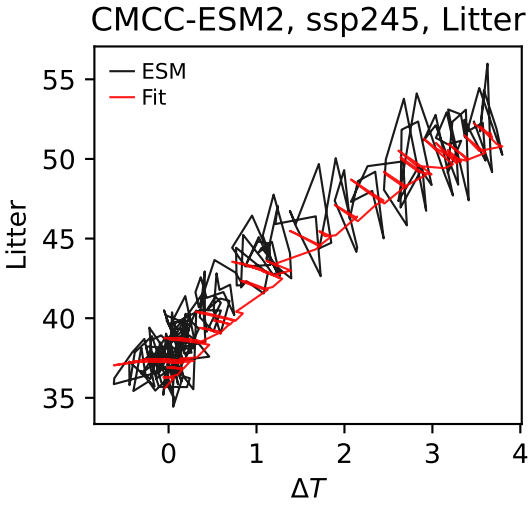

CMCC-ESM2, ssp245, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
gpp_hyst
gpp_c_e
CMCC-ESM2
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.35
21.75
21.15
20.55
19.95
19.35
18.75
18.15

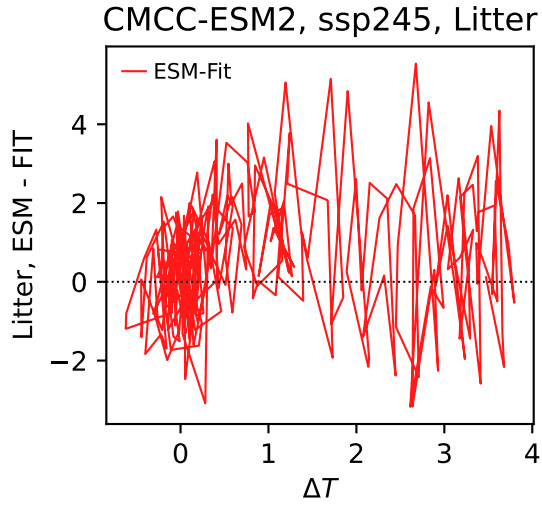

CMCC-ESM2, ssp245, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
1e−12+2.047881306e1
4.054
3.602
3.151
2.704
2.252
1.801
1.354
0.902
0.451
0.004
CMCC-ESM2
0.04
0.02
0.00
−0.02
−0.04
gpp_c_tan2
−0.04
−0.02
0.00
0.02
0.04
gpp_c_tan

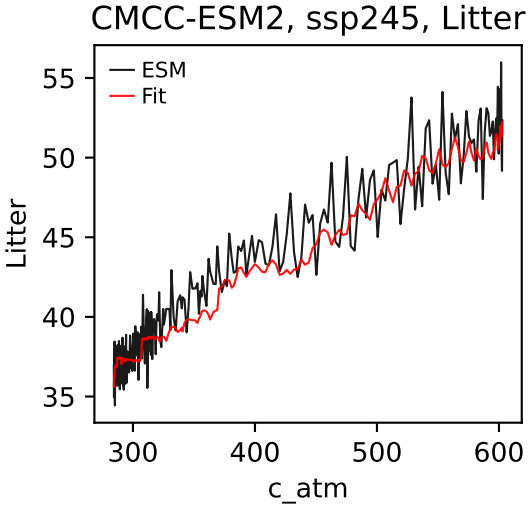

CMCC-ESM2, ssp245, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
1e−12+2.047881306e1
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
gpp_slow
0.90
0.92
0.94
0.96
0.98
1.00
gpp_fast
CMCC-ESM2
4.054
3.602
3.151
2.704
2.252
1.801
1.354
0.902
0.451
0.004

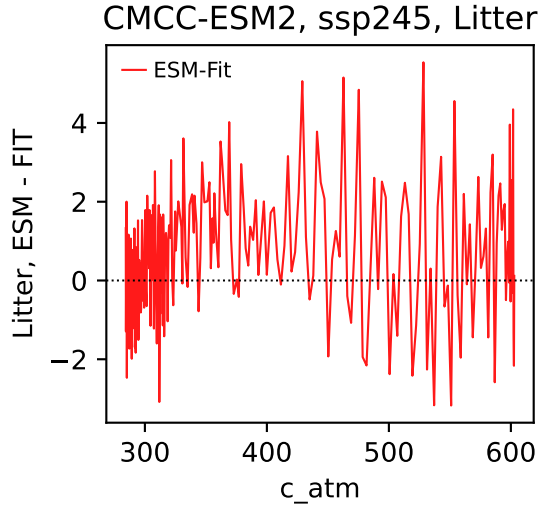

CMCC-ESM2, ssp245, Litter
ESM
Fit
Litter
Year

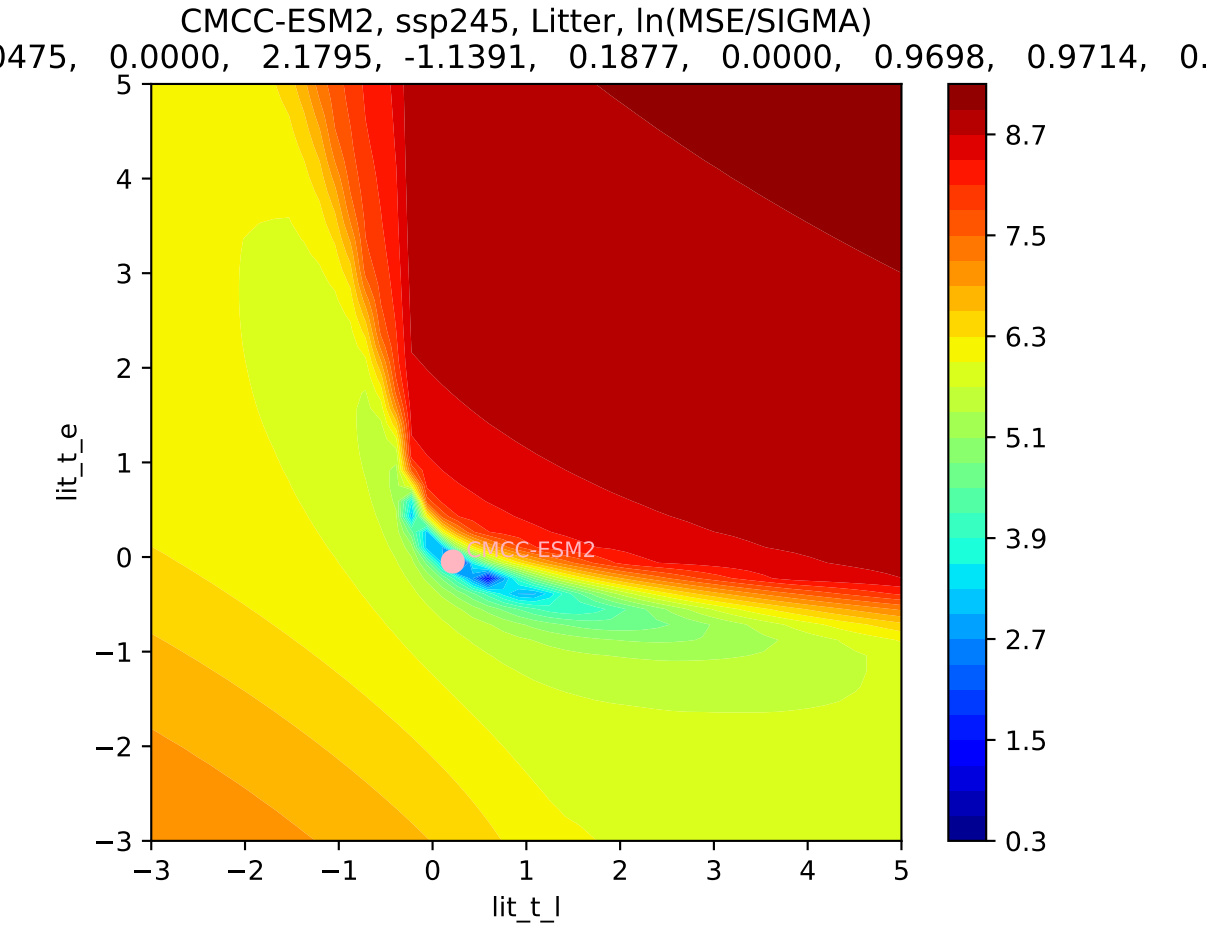

CMCC-ESM2, ssp245, Litter
ESM-Fit
Litter, ESM - FIT
Year

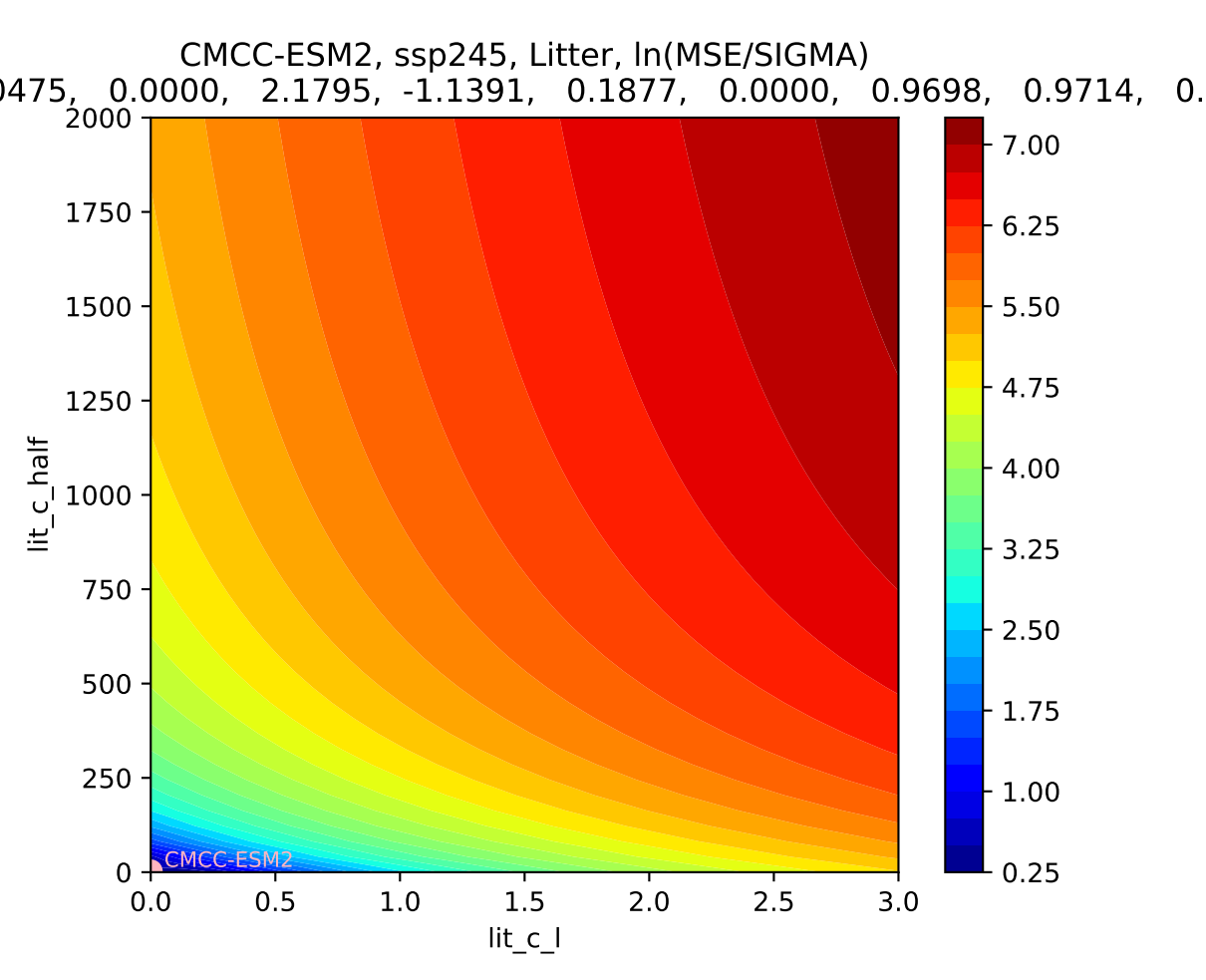

CMCC-ESM2, ssp245, Litter
ESM
Fit
Litter
ΔT

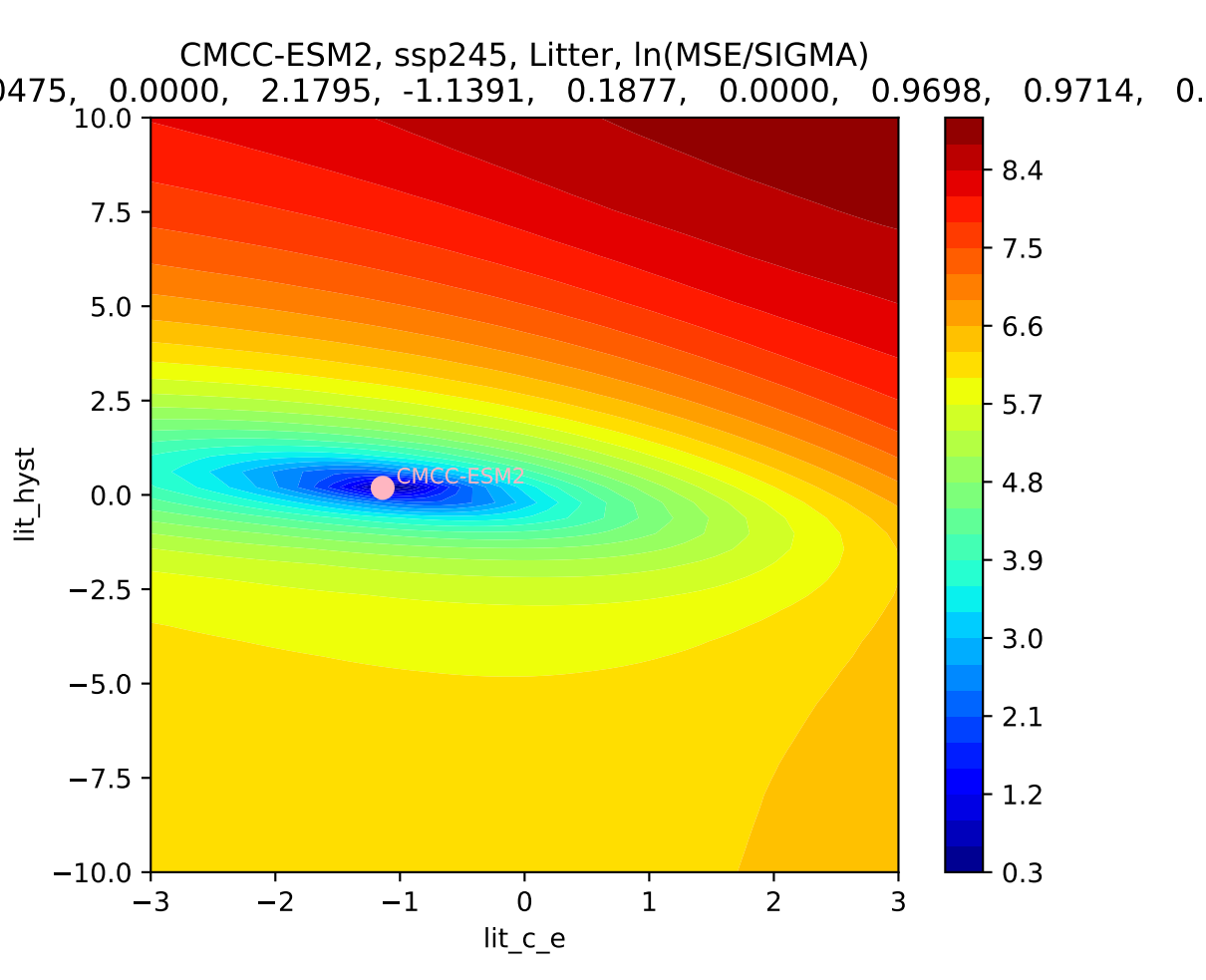

CMCC-ESM2, ssp245, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

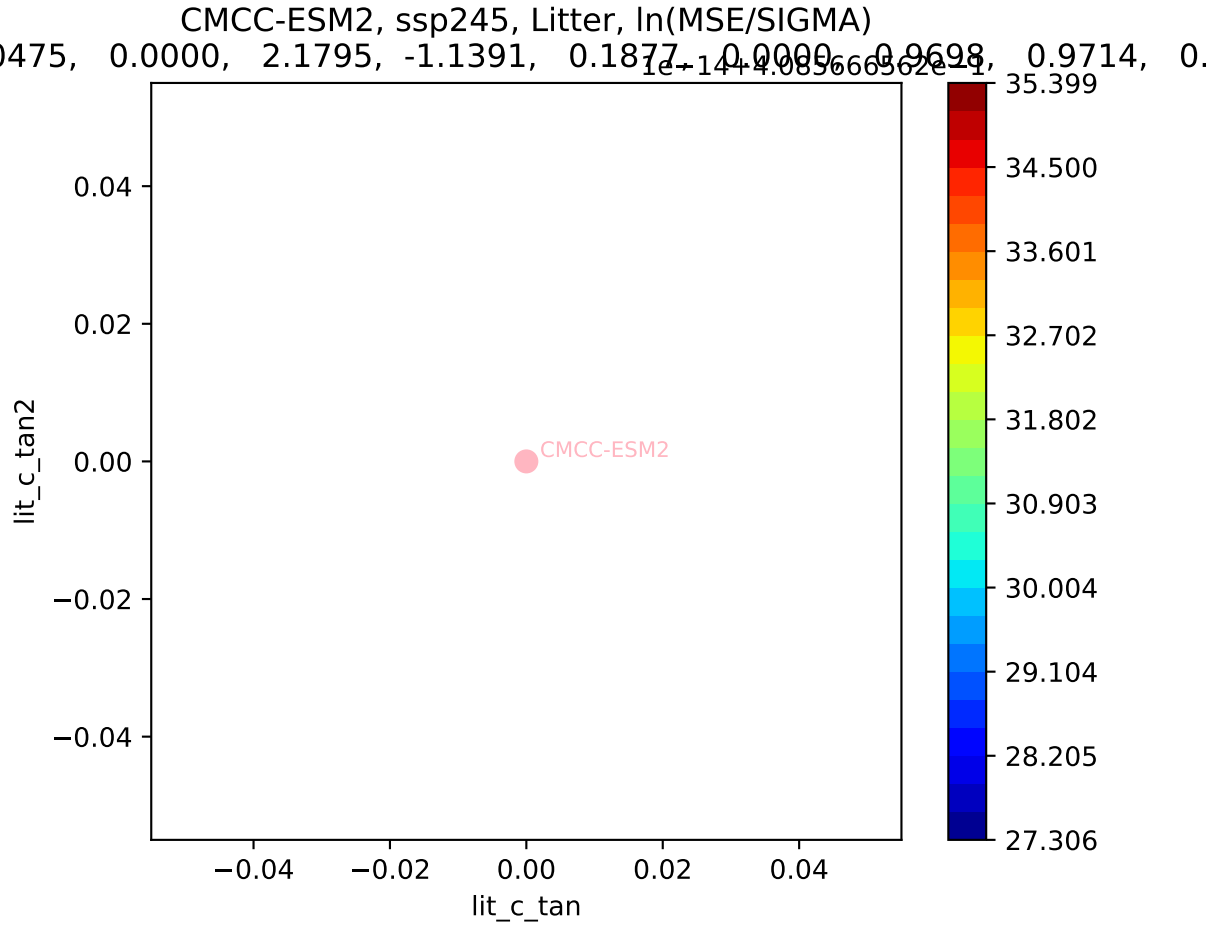

CMCC-ESM2, ssp245, Litter
ESM
Fit
Litter
c_atm

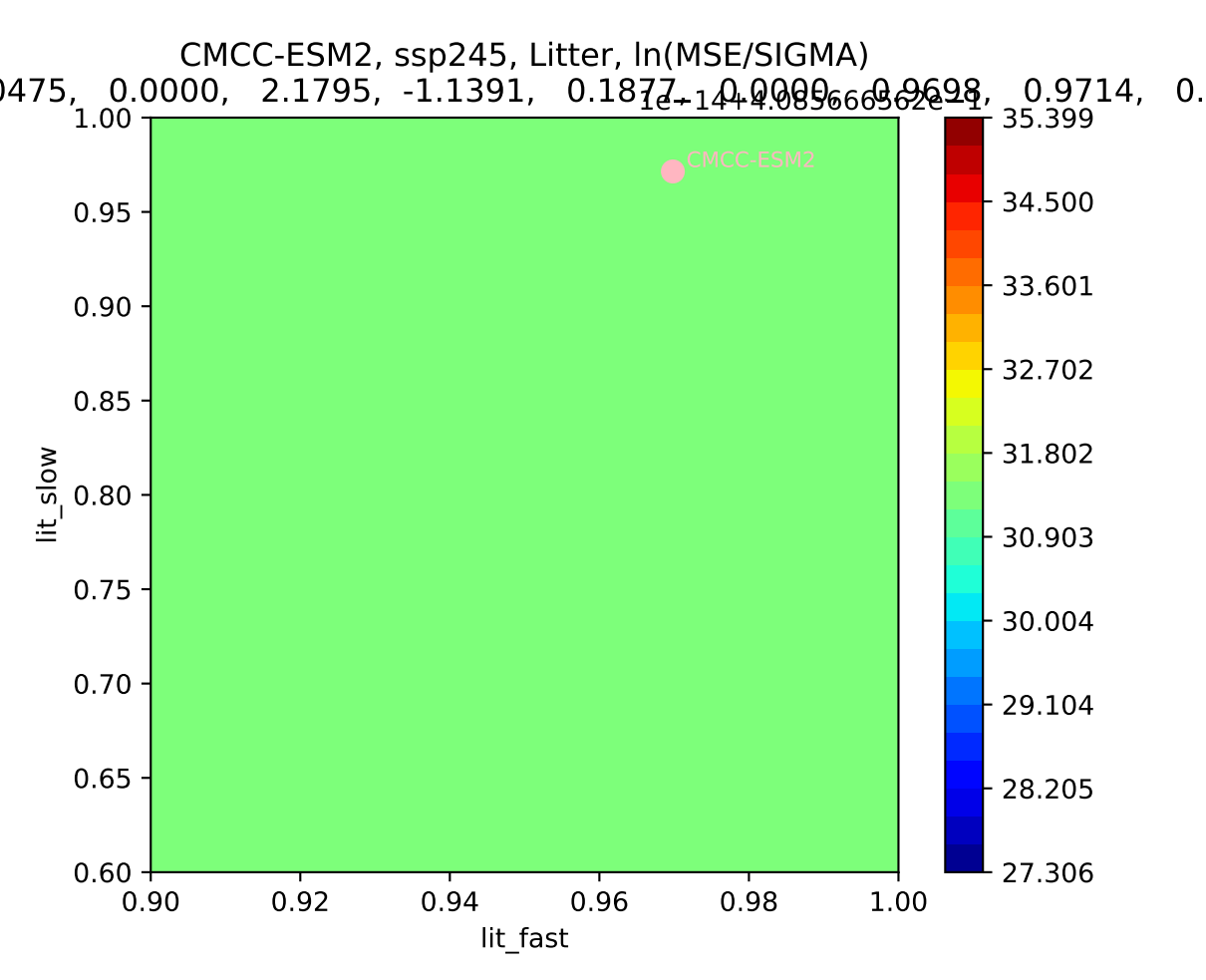

CMCC-ESM2, ssp245, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

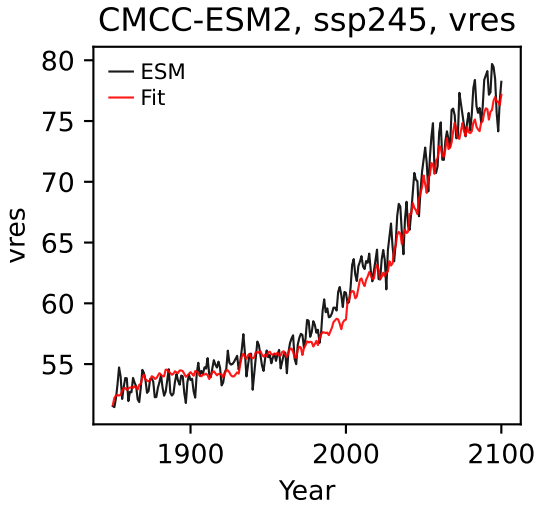

CMCC-ESM2, ssp245, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
CMCC-ESM2
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
8.7
7.5
6.3
5.1
3.9
2.7
1.5
0.3

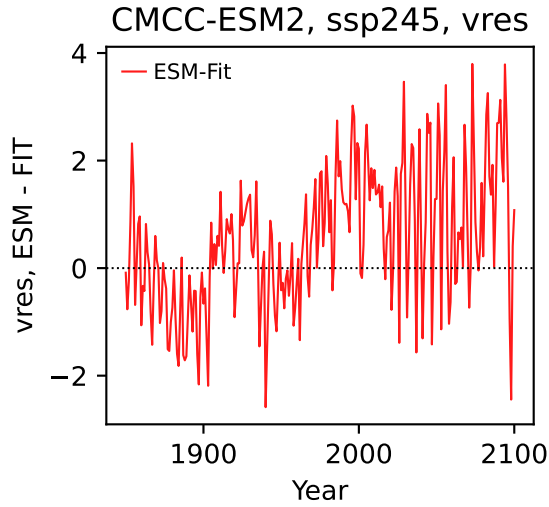

CMCC-ESM2, ssp245, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
lit_c_half
lit_c_l
CMCC-ESM2
0
250
500
750
1000
1250
1500
1750
2000
0.0
0.5
1.0
1.5
2.0
2.5
3.0
7.00
6.25
5.50
4.75
4.00
3.25
2.50
1.75
1.00
0.25

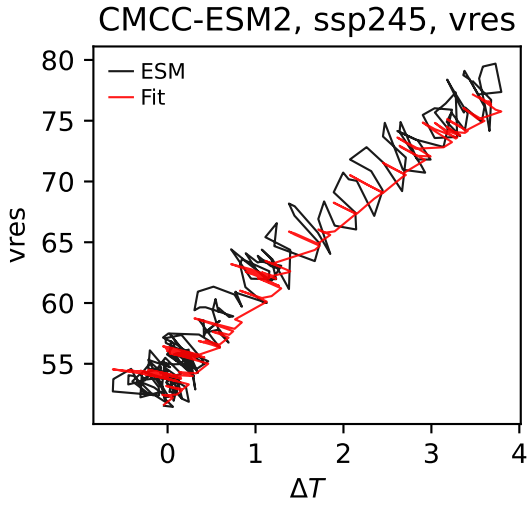

CMCC-ESM2, ssp245, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
CMCC-ESM2
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
8.4
7.5
6.6
5.7
4.8
3.9
3.0
2.1
1.2
0.3

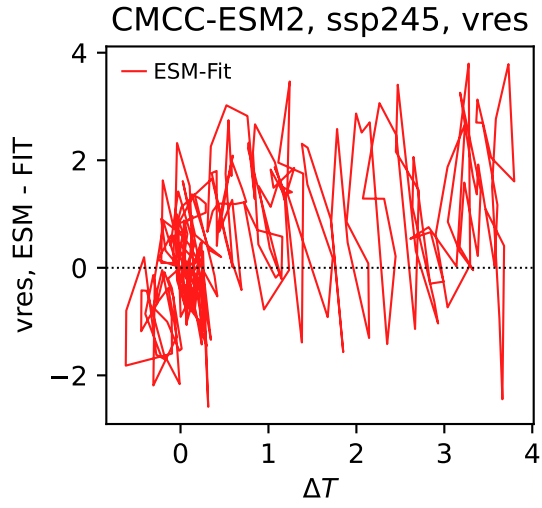

CMCC-ESM2, ssp245, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
1e+14+4.085666562e+1
CMCC-ESM2
0.04
0.02
0.00
−0.02
−0.04
lit_c_tan2
−0.04
−0.02
0.00
0.02
0.04
lit_c_tan
35.399
34.500
33.601
32.702
31.802
30.903
30.004
29.104
28.205
27.306

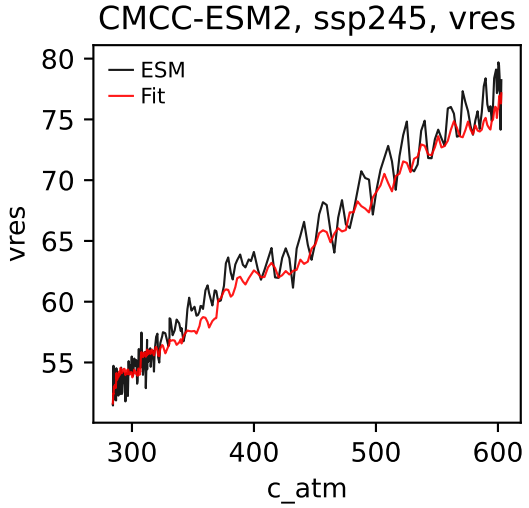

CMCC-ESM2, ssp245, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
1e+14+4.085666562e+1
CMCC-ESM2
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
lit_slow
0.90
0.92
0.94
0.96
0.98
1.00
lit_fast
35.399
34.500
33.601
32.702
31.802
30.903
30.004
29.104
28.205
27.306

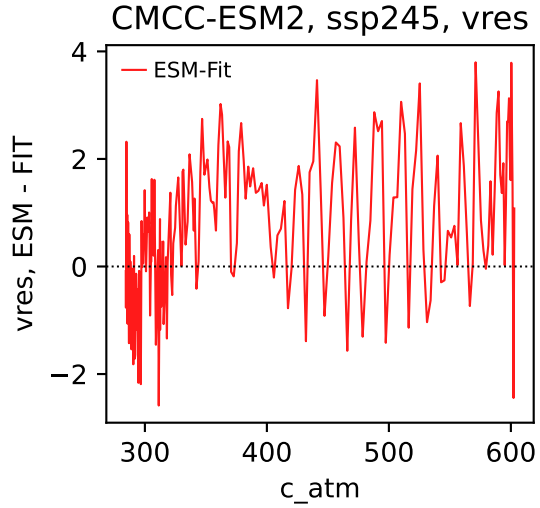

CMCC-ESM2, ssp245, vres
ESM
Fit
vres
Year

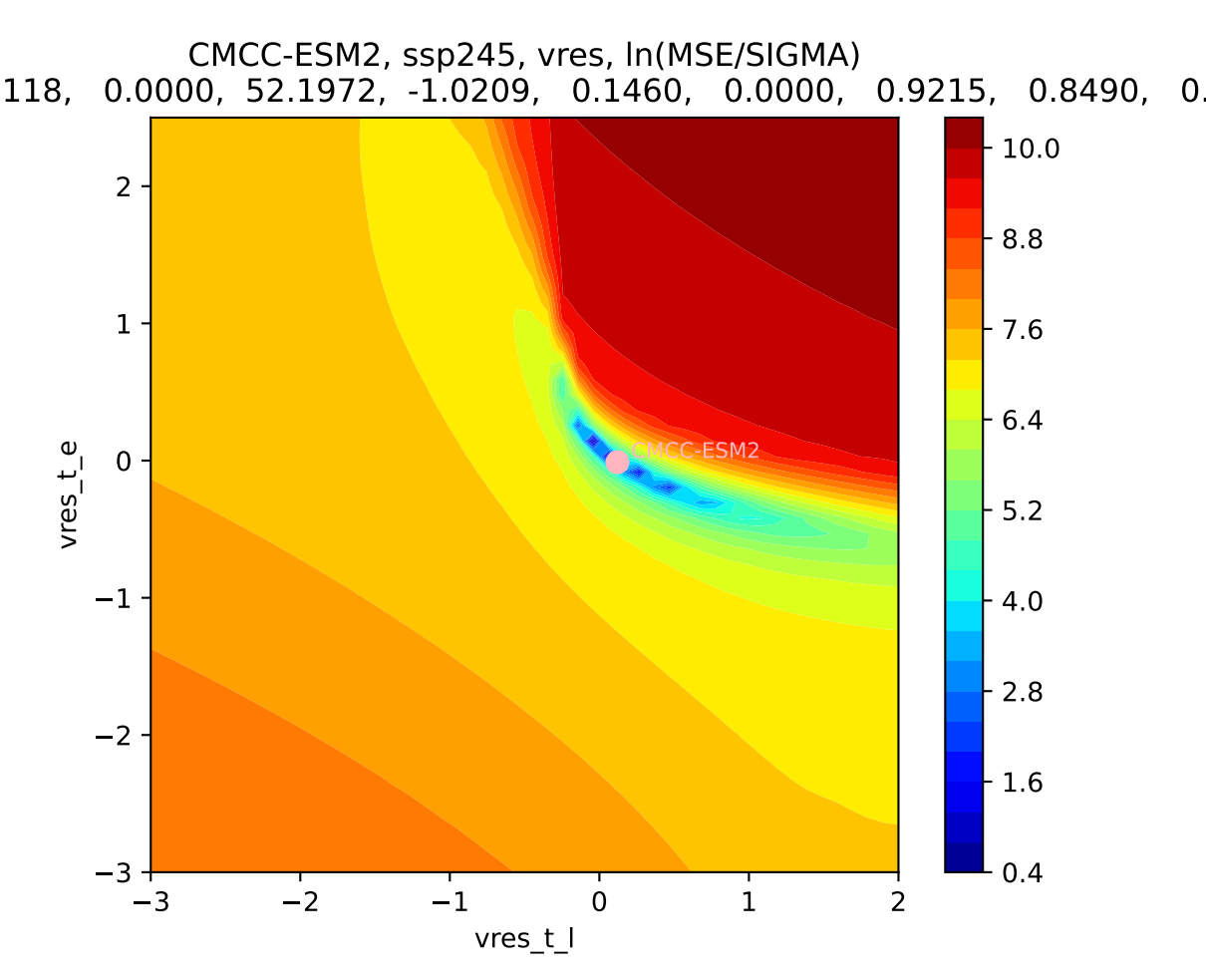

CMCC-ESM2, ssp245, vres
ESM-Fit
vres, ESM - FIT
Year

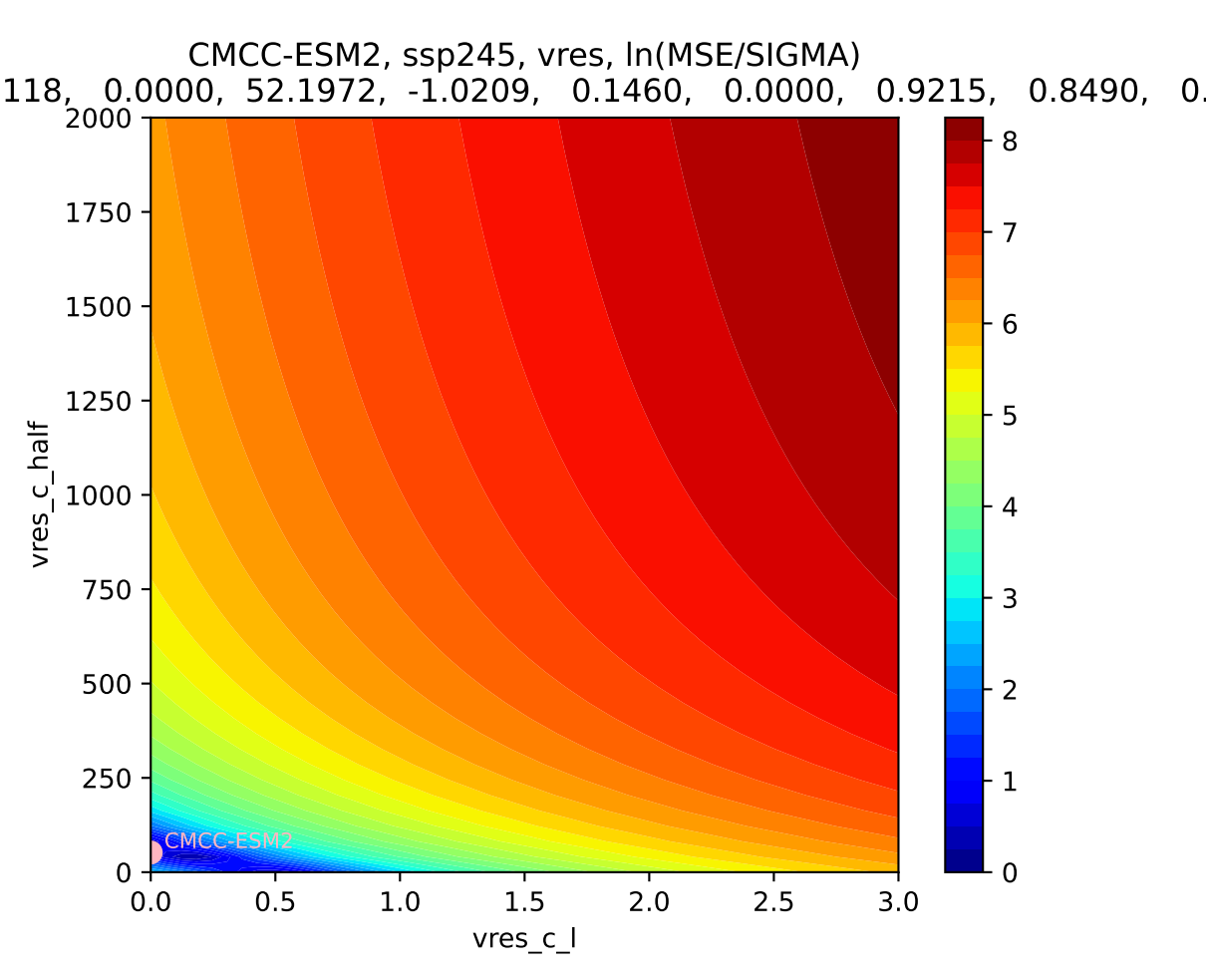

CMCC-ESM2, ssp245, vres
ESM
Fit
vres
ΔT

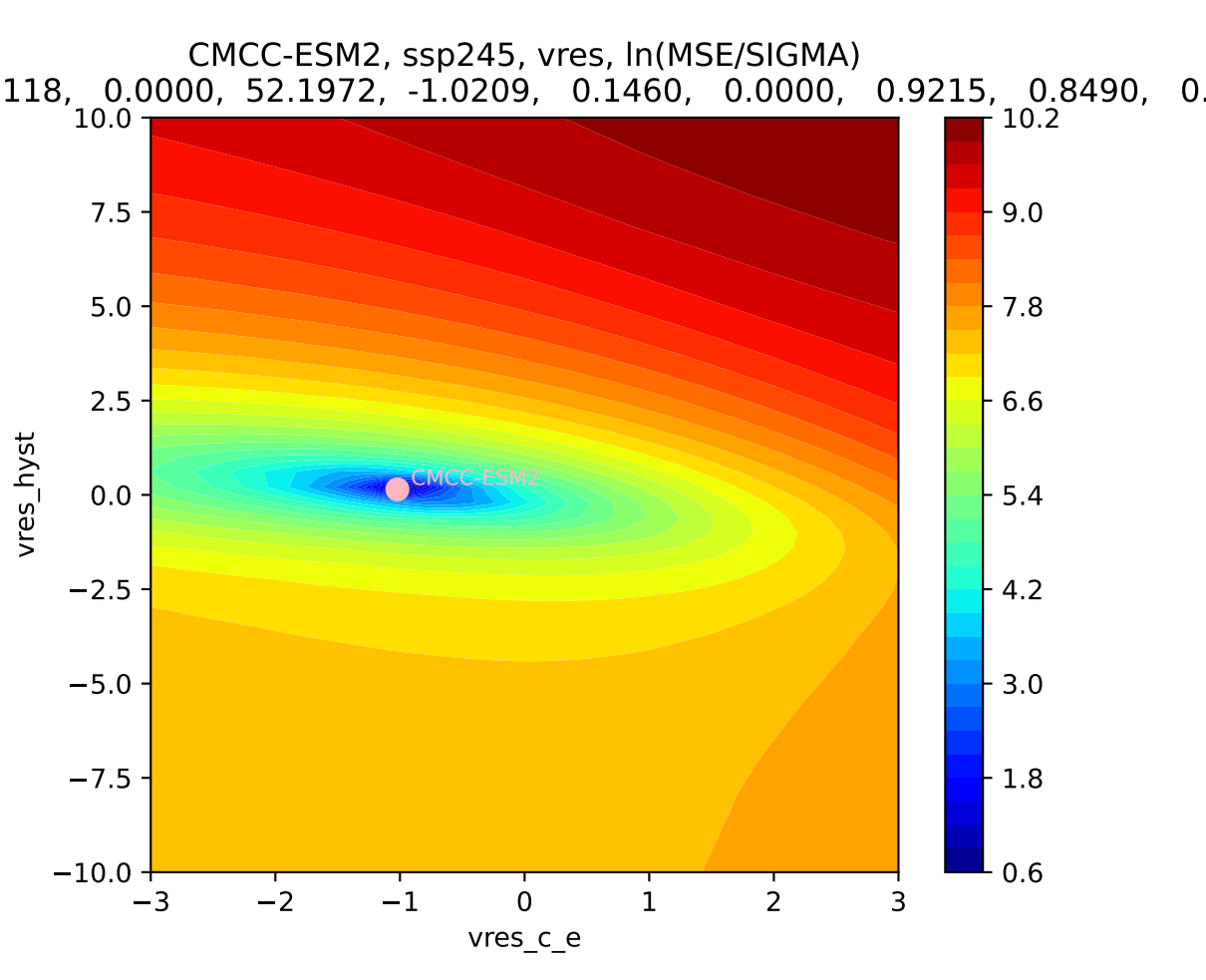

CMCC-ESM2, ssp245, vres
ESM-Fit
vres, ESM - FIT
ΔT

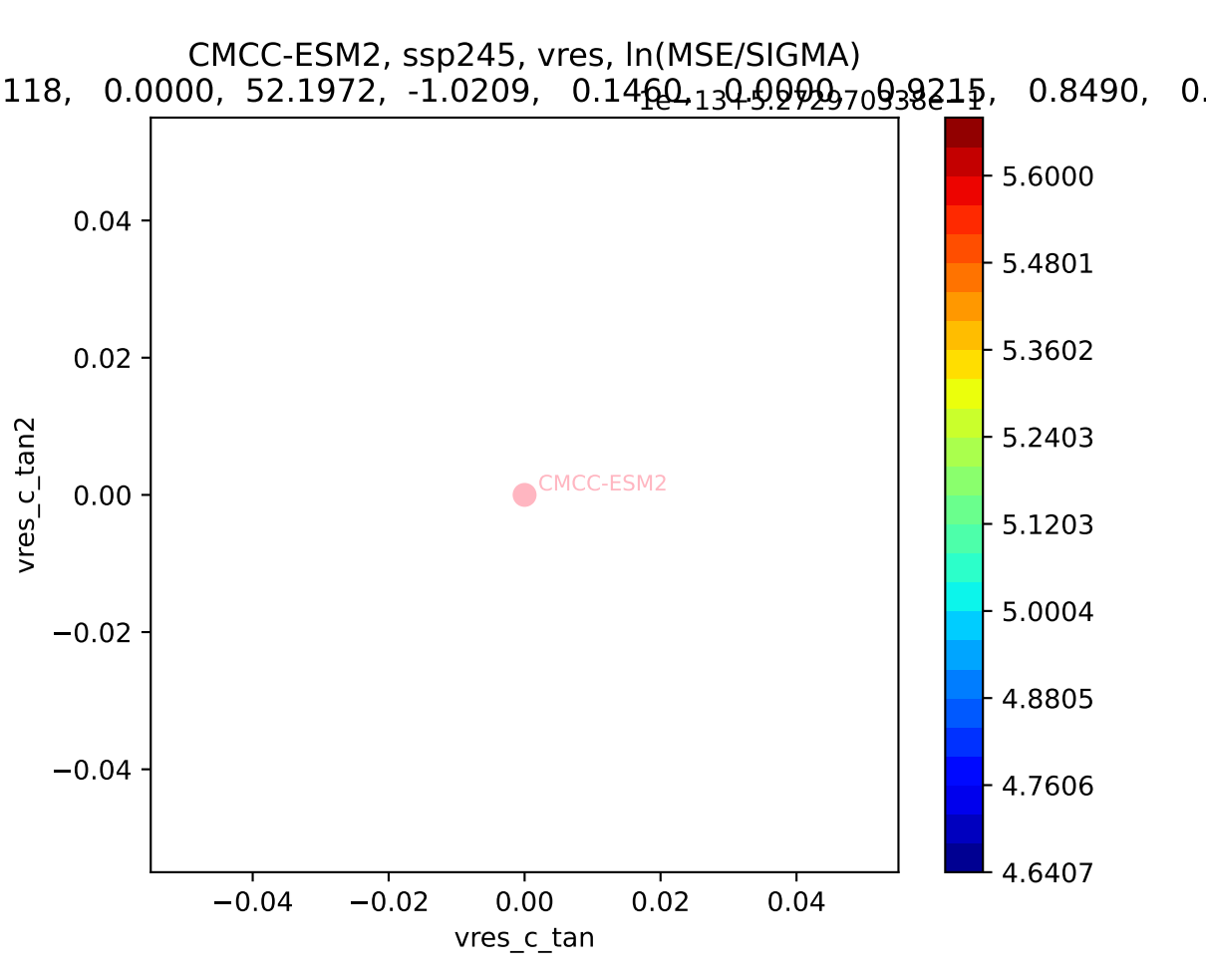

CMCC-ESM2, ssp245, vres
ESM
Fit
vres
c_atm

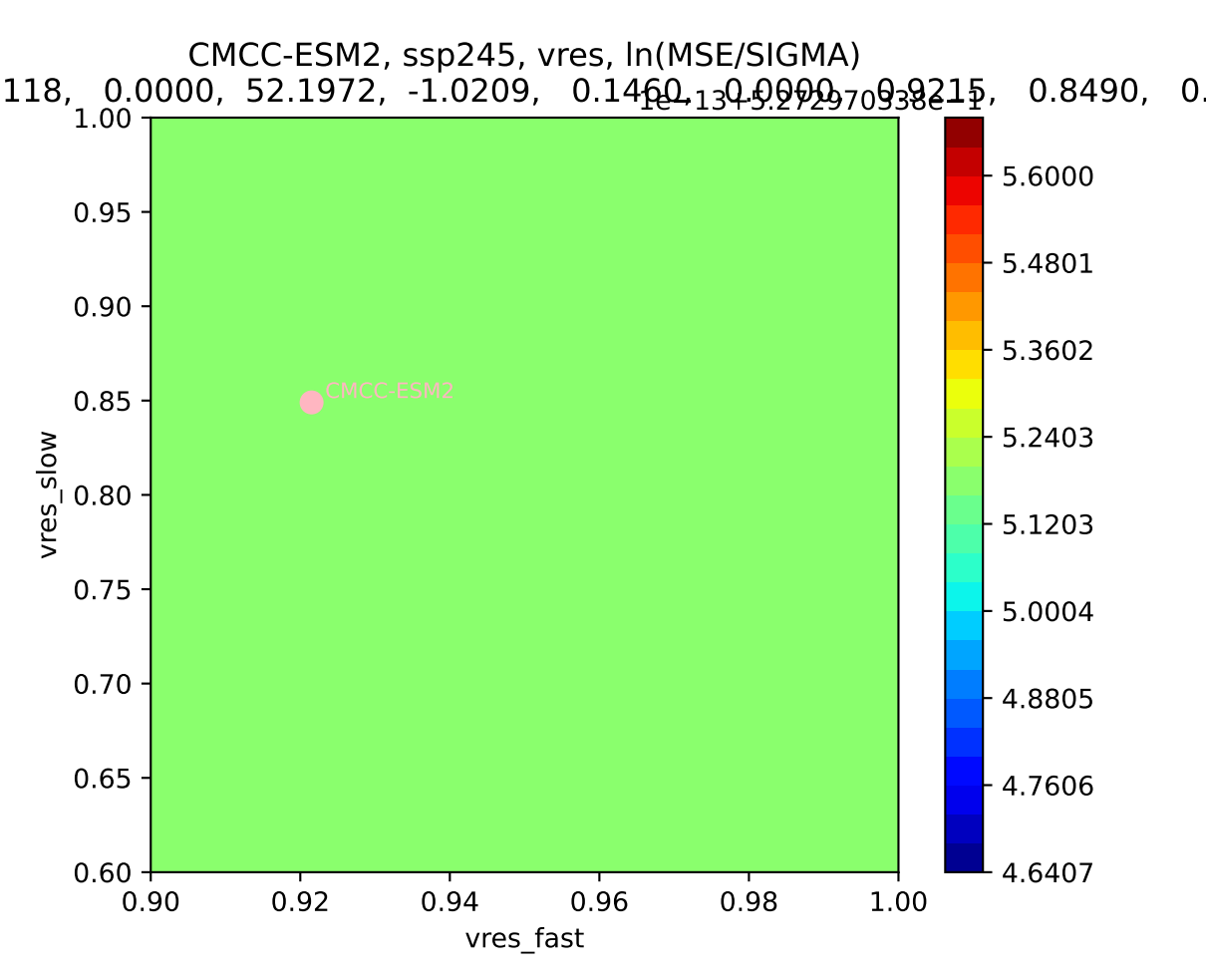

CMCC-ESM2, ssp245, vres
ESM-Fit
vres, ESM - FIT
c_atm

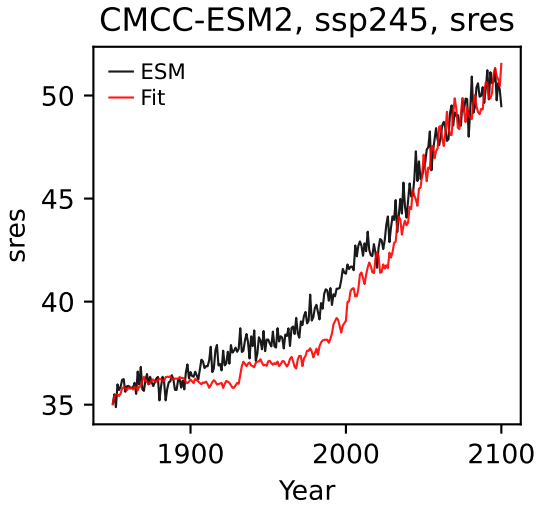

CMCC-ESM2, ssp245, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
CMCC-ESM2
vres_t_e
vres_t_l
−3
−2
−1
0
1
2
10.0
8.8
7.6
6.4
5.2
4.0
2.8
1.6
0.4

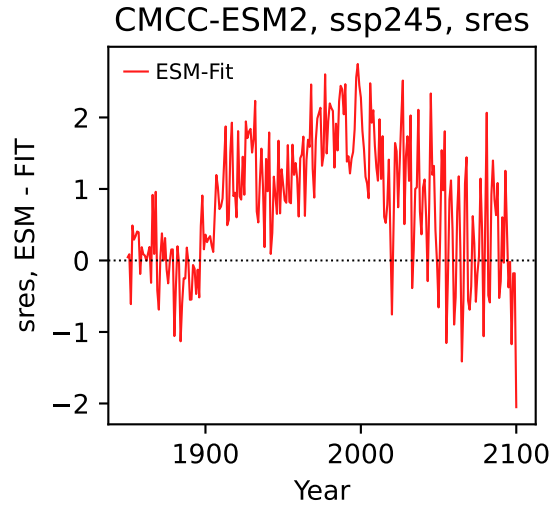

CMCC-ESM2, ssp245, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
vres_c_half
vres_c_l
CMCC-ESM2
0
250
500
750
1000
1250
1500
1750
2000
0.0
0.5
1.0
1.5
2.0
2.5
3.0
0
1
2
3
4
5
6
7
8

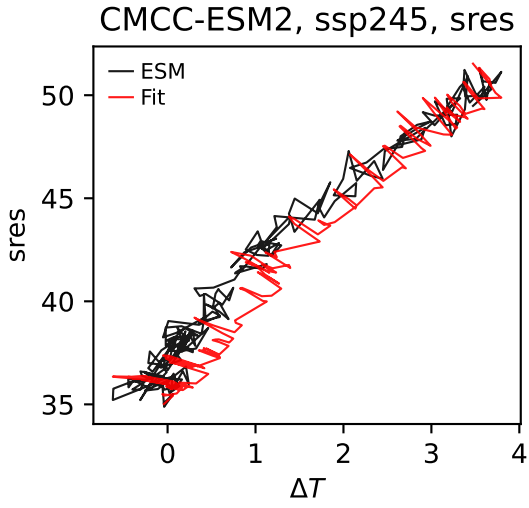

CMCC-ESM2, ssp245, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
CMCC-ESM2
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.2
9.0
7.8
6.6
5.4
4.2
3.0
1.8
0.6

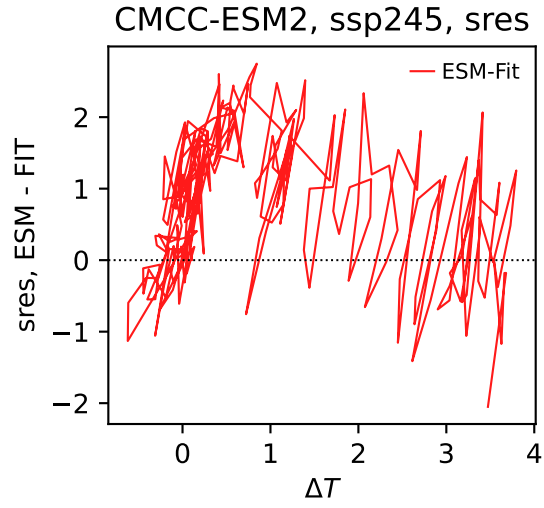

CMCC-ESM2, ssp245, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
1e−13+5.272970538e−1
CMCC-ESM2
vres_c_tan2
vres_c_tan
0.04
0.02
0.00
−0.02
−0.04
5.6000
5.4801
5.3602
5.2403
5.1203
5.0004
4.8805
4.7606
4.6407

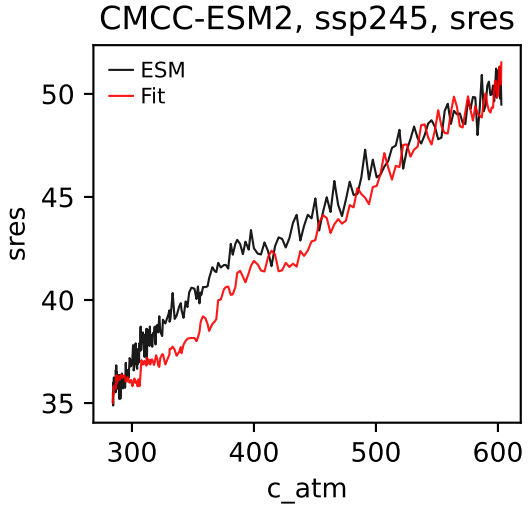

CMCC-ESM2, ssp245, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
1e−13+5.272970538e−1
CMCC-ESM2
vres_slow
vres_fast
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.90
0.92
0.94
0.96
0.98
1.00
5.6000
5.4801
5.3602
5.2403
5.1203
5.0004
4.8805
4.7606
4.6407

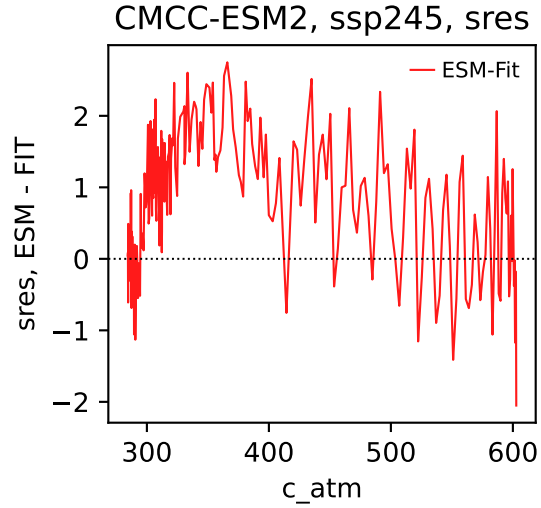

CMCC-ESM2, ssp245, sres
ESM
Fit
sres
Year

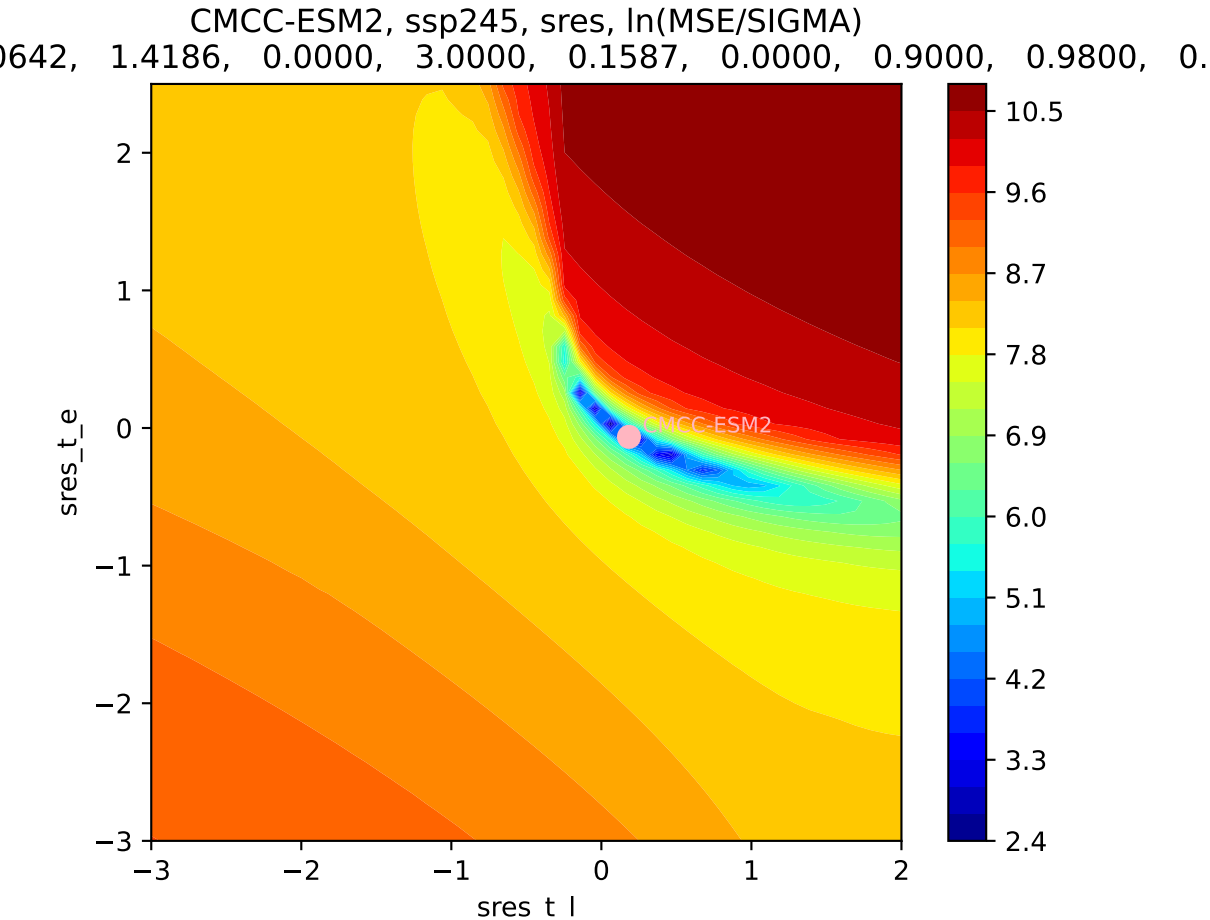

CMCC-ESM2, ssp245, sres
ESM-Fit
sres, ESM - FIT
Year

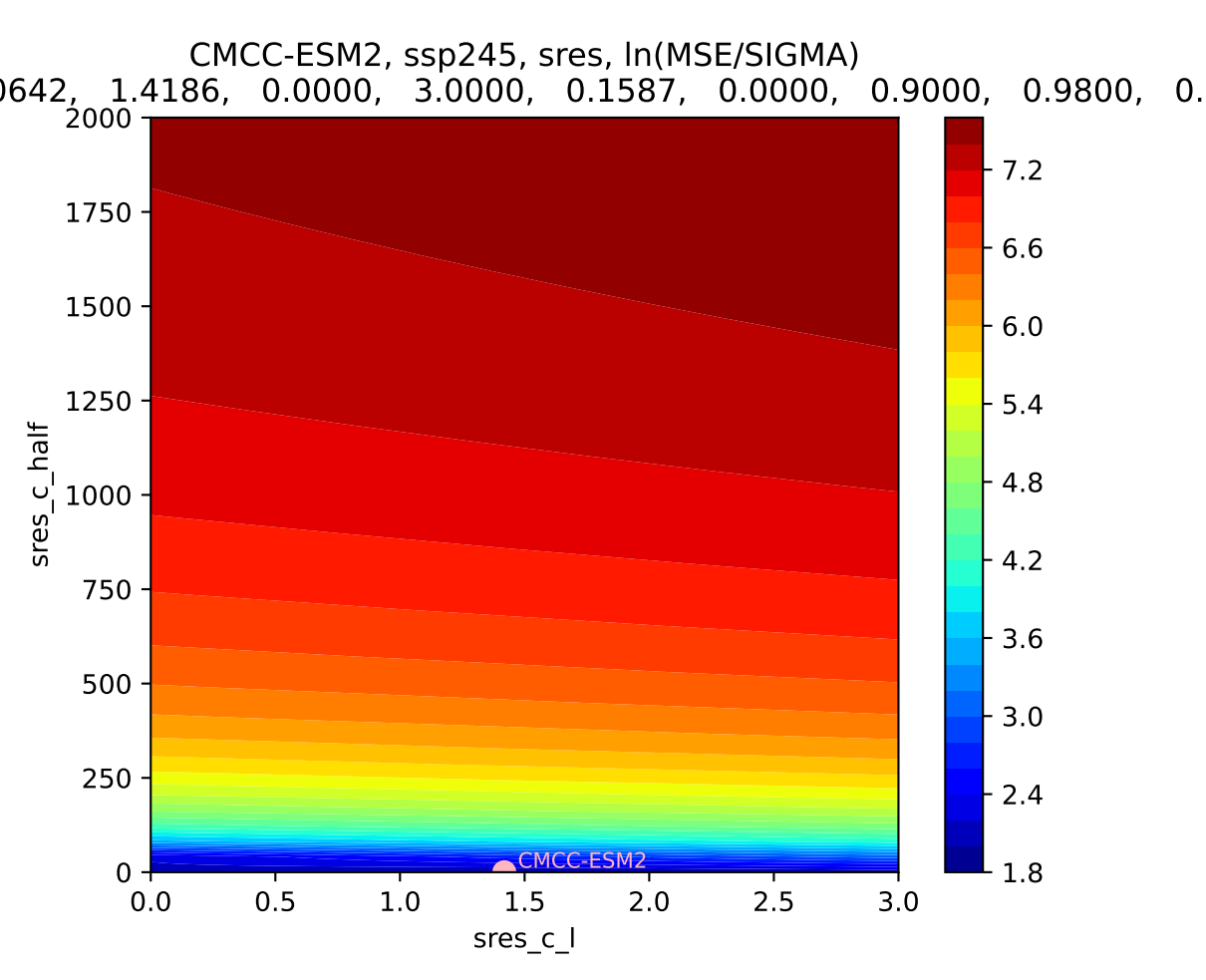

CMCC-ESM2, ssp245, sres
ESM
Fit
sres
ΔT

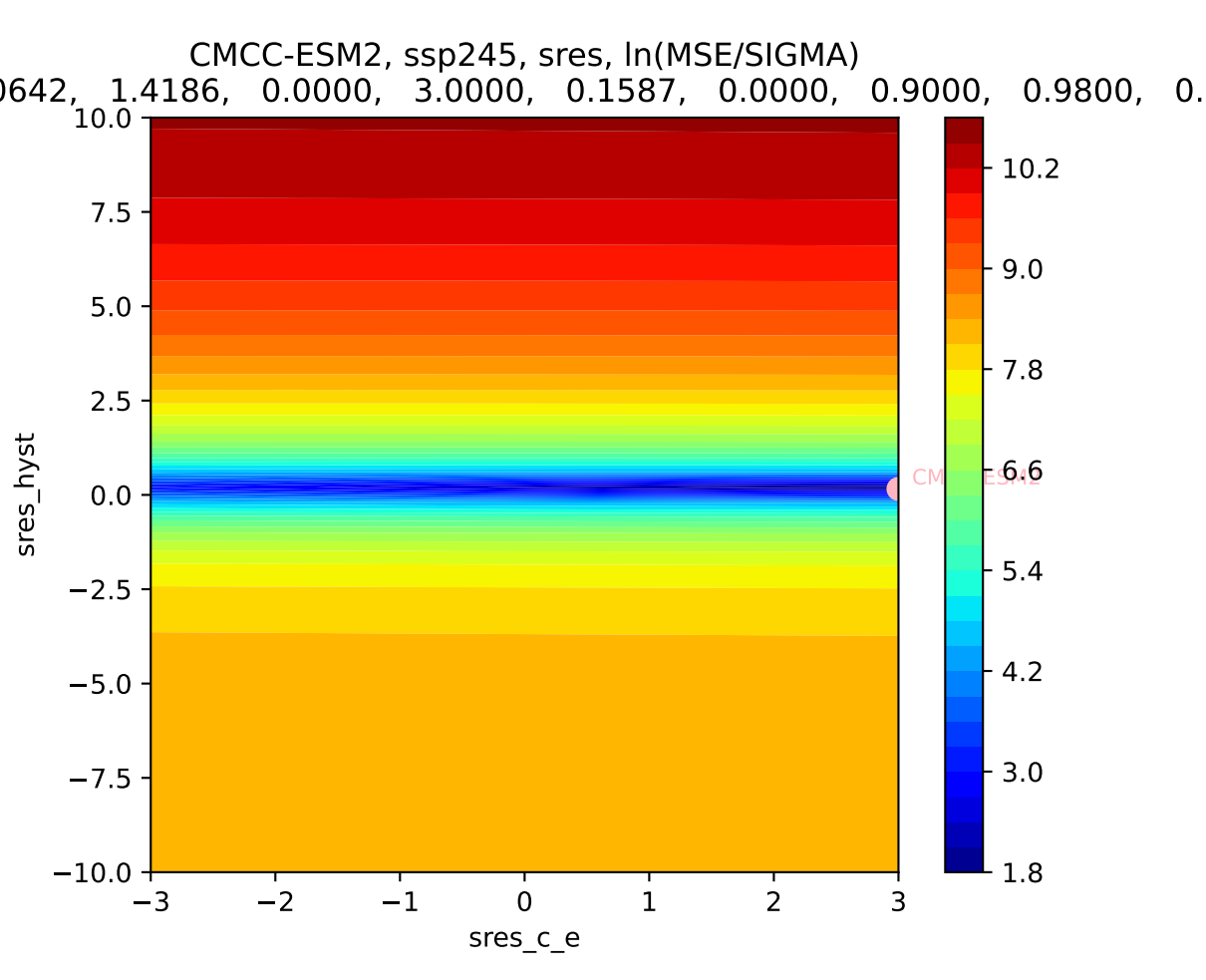

CMCC-ESM2, ssp245, sres
ESM-Fit
sres, ESM - FIT
ΔT

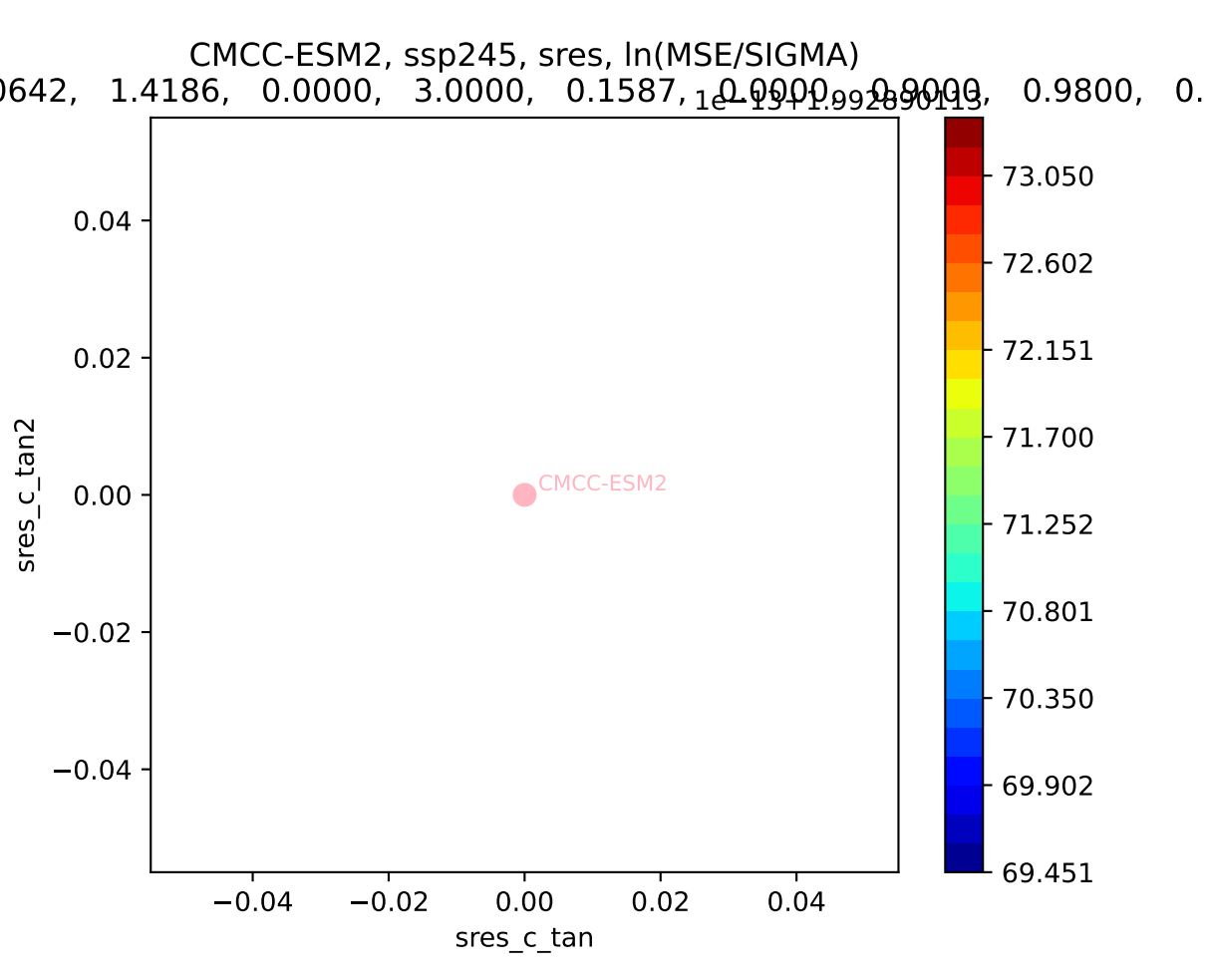

CMCC-ESM2, ssp245, sres
ESM
Fit
sres
c_atm

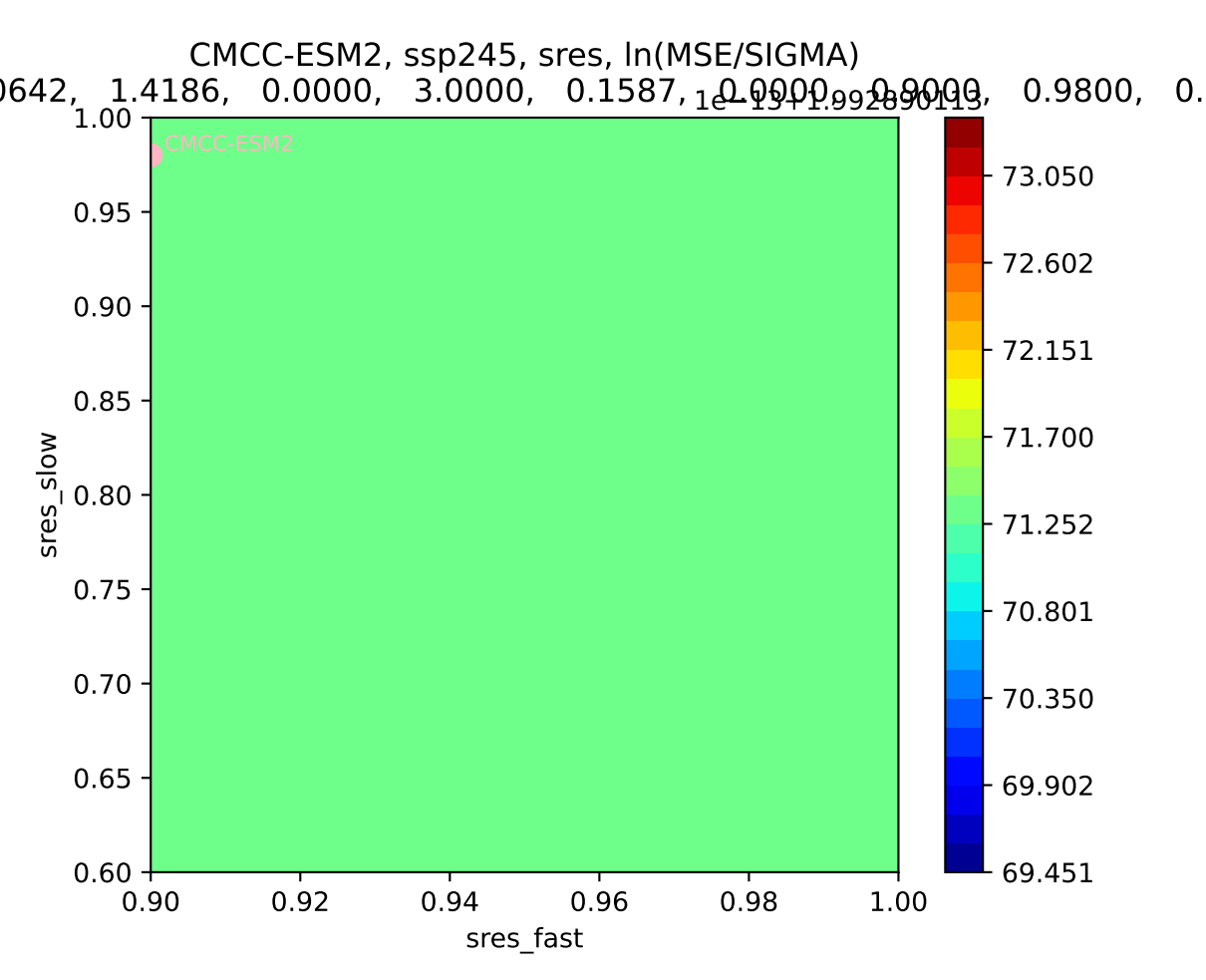

CMCC-ESM2, ssp245, sres
ESM-Fit
sres, ESM - FIT
c_atm

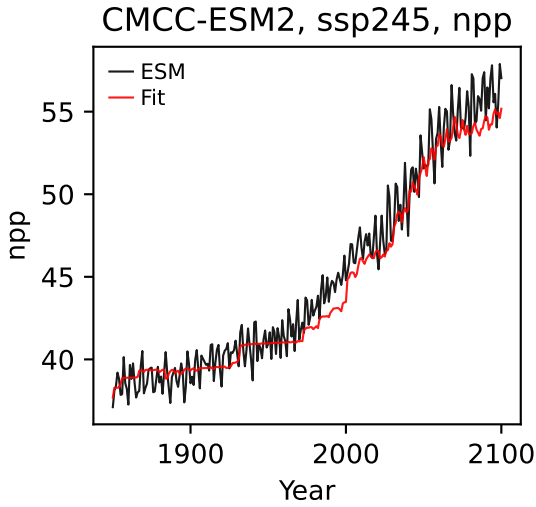

CMCC-ESM2, ssp245, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
CMCC-ESM2
sres_t_e
sres_t_l
2
1
0
−1
−2
−3
10.5
9.6
8.7
7.8
6.9
6.0
5.1
4.2
3.3
2.4

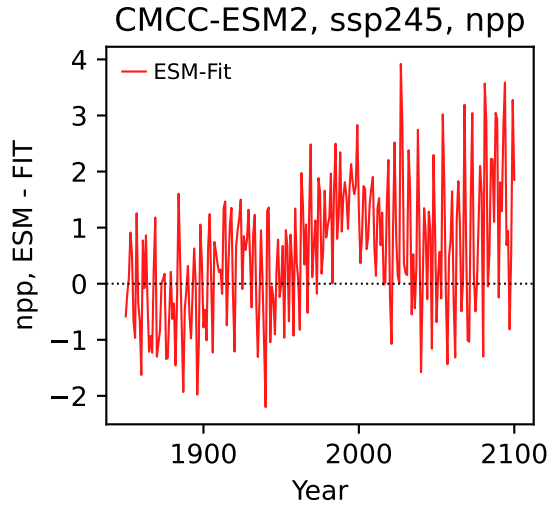

CMCC-ESM2, ssp245, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
sres_c_half
sres_c_l
CMCC-ESM2
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
7.2
6.6
6.0
5.4
4.8
4.2
3.6
3.0
2.4
1.8

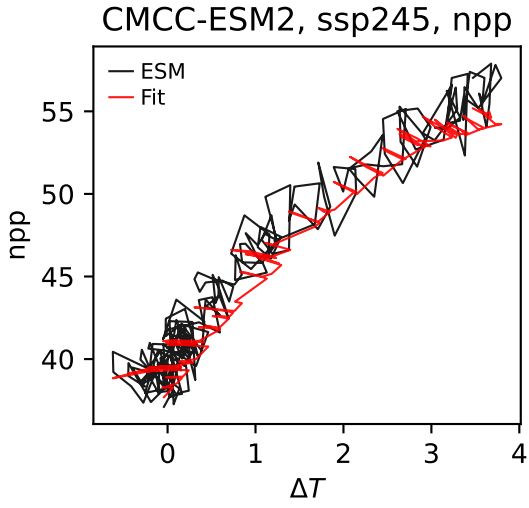

CMCC-ESM2, ssp245, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.2
9.0
7.8
6.6
5.4
4.2
3.0
1.8

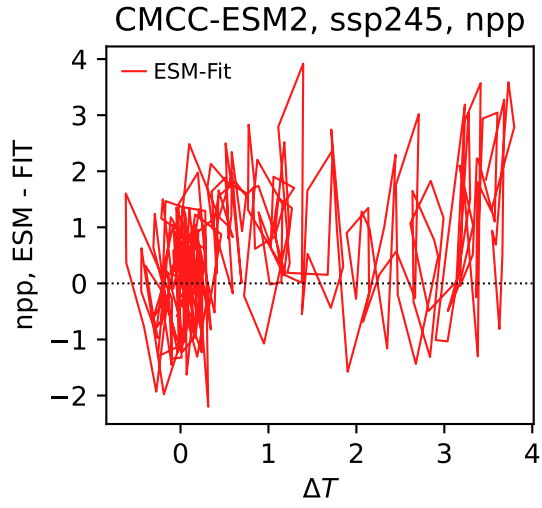

CMCC-ESM2, ssp245, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
1e−13+1.992890113
CMCC-ESM2
sres_c_tan2
sres_c_tan
0.04
0.02
0.00
−0.02
−0.04
73.050
72.602
72.151
71.700
71.252
70.801
70.350
69.902
69.451

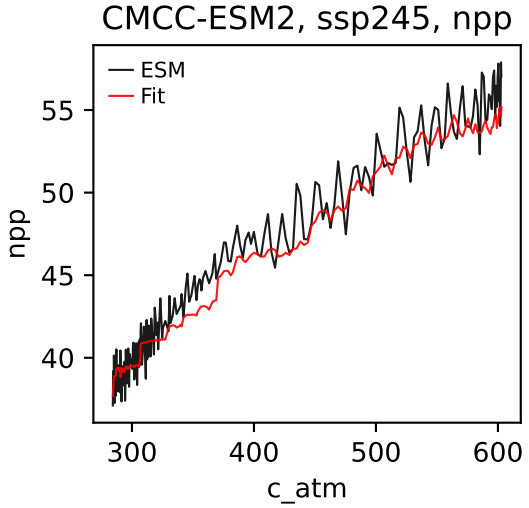

CMCC-ESM2, ssp245, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
1e-13+1.992890113
CMCC-ESM2
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
sres_slow
0.90
0.92
0.94
0.96
0.98
1.00
sres_fast
73.050
72.602
72.151
71.700
71.252
70.801
70.350
69.902
69.451

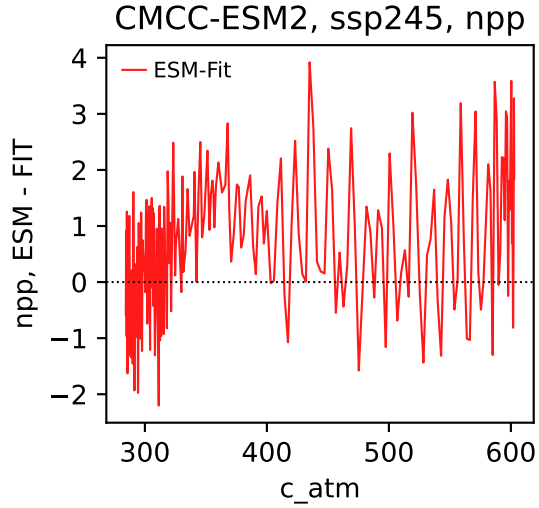

CMCC-ESM2, ssp245, npp
ESM
Fit
npp
Year

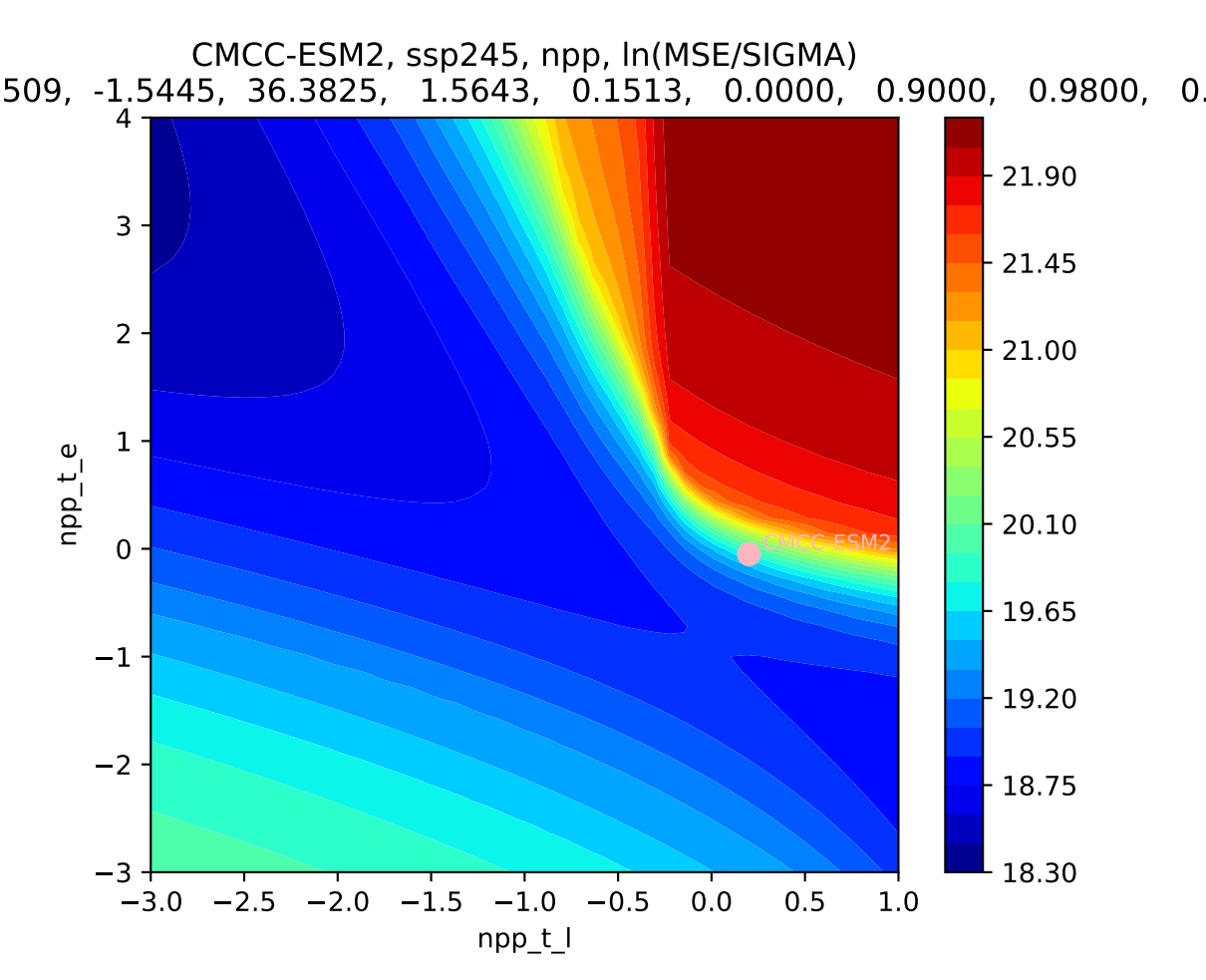

CMCC-ESM2, ssp245, npp
ESM-Fit
npp, ESM - FIT
Year

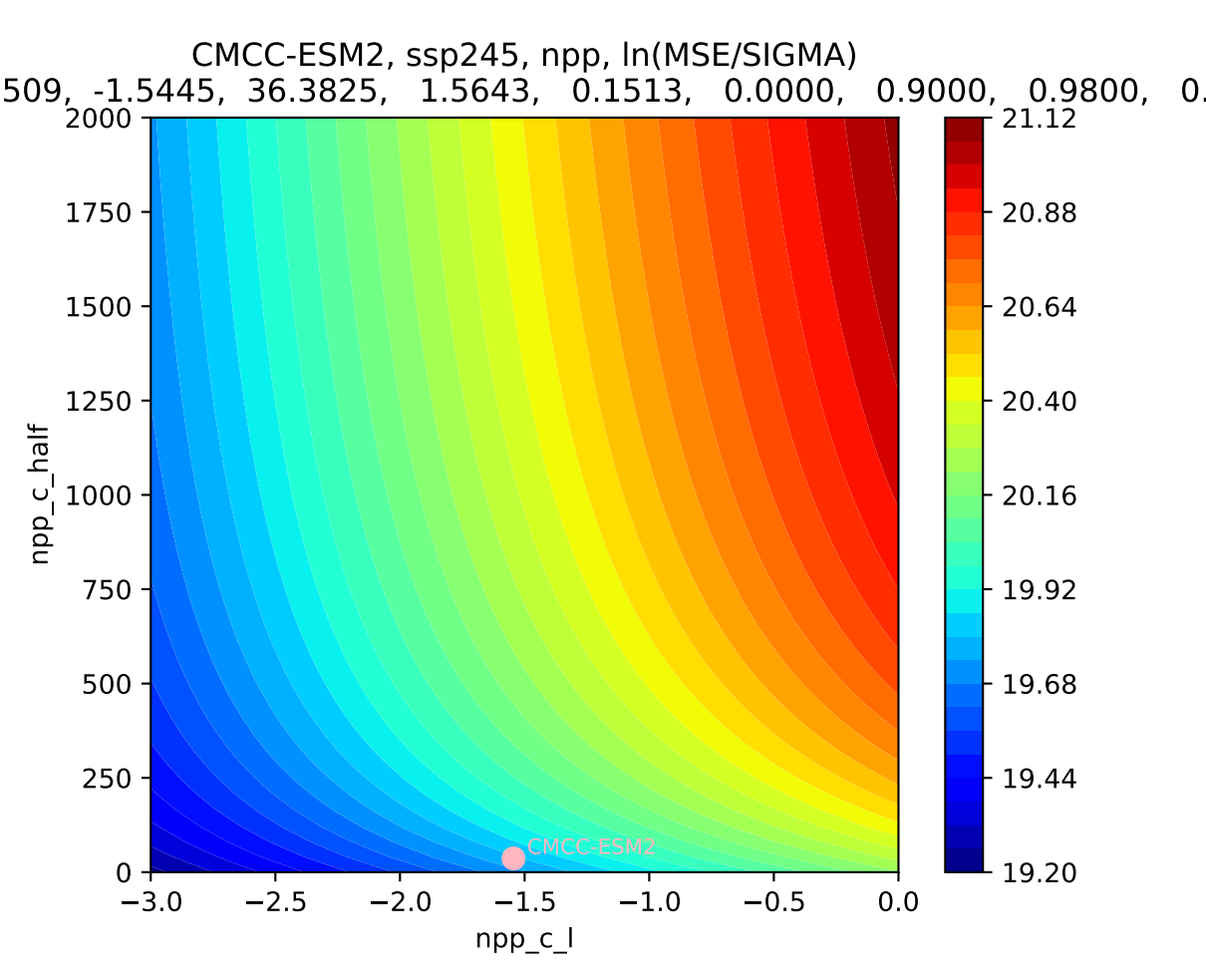

CMCC-ESM2, ssp245, npp
ESM
Fit
npp
ΔT

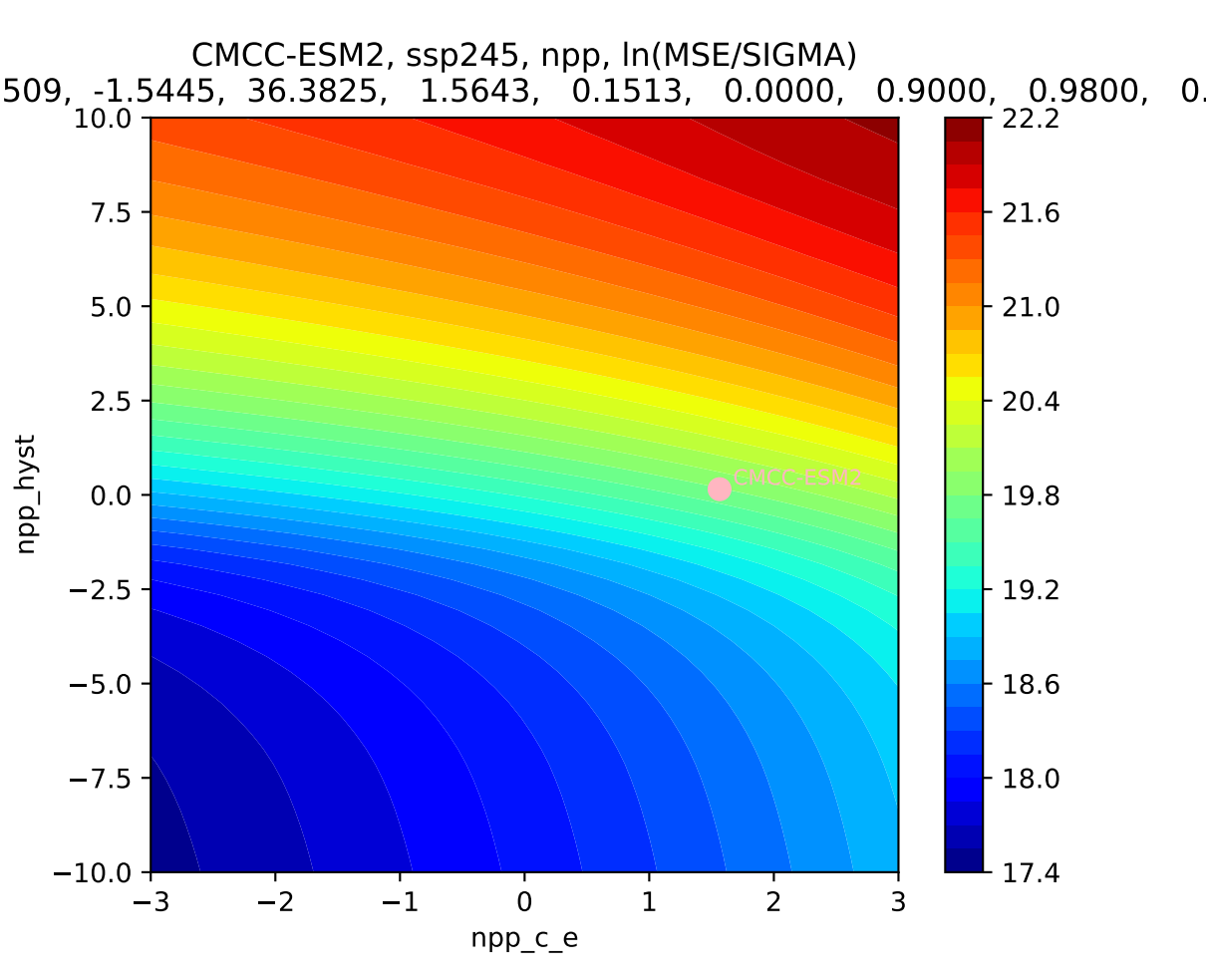

CMCC-ESM2, ssp245, npp
ESM-Fit
npp, ESM - FIT
ΔT

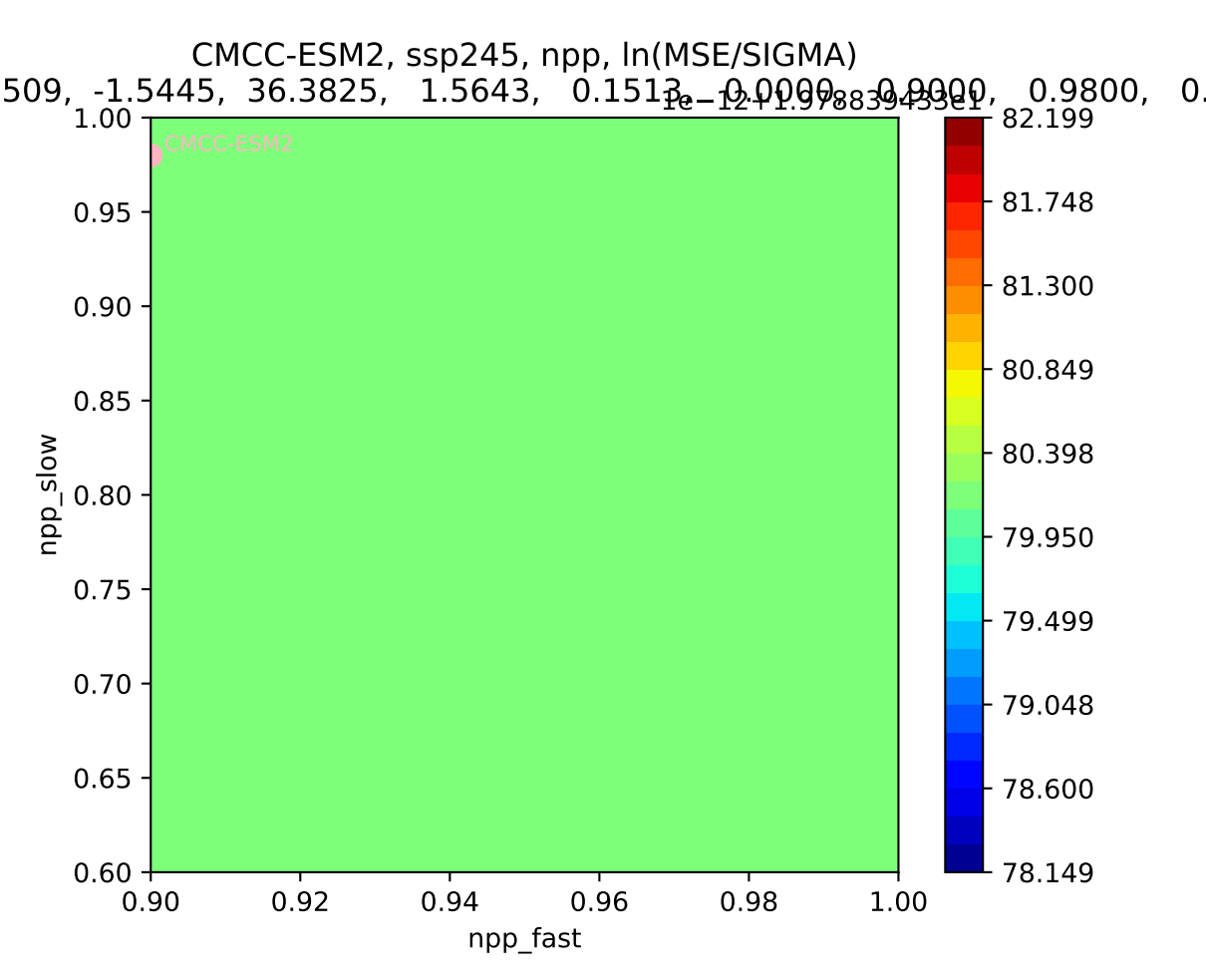

CMCC-ESM2, ssp245, npp
ESM
Fit
npp
c_atm

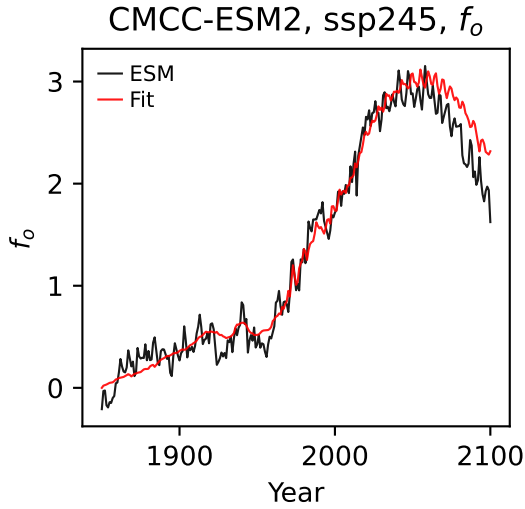

CMCC-ESM2, ssp245, npp
ESM-Fit
npp, ESM - FIT
c_atm

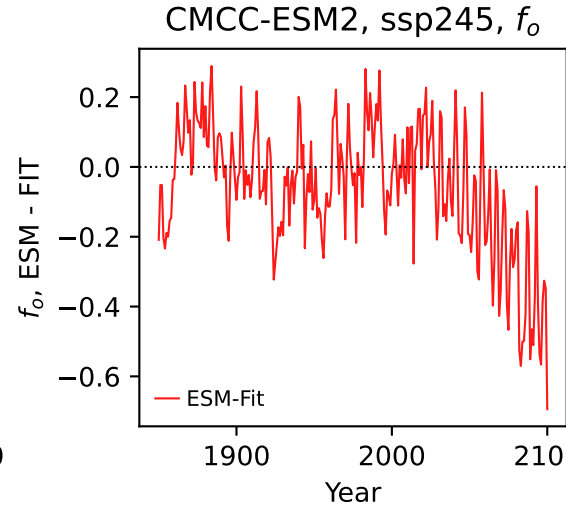

CMCC-ESM2, ssp245, npp, ln(MSE/SIGMA)
509, -1.5445, 36.3825, 1.5643, 0.1513, 0.0000, 0.9000, 0.9800, 0.
CMCC-ESM2
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
21.90
21.45
21.00
20.55
20.10
19.65
19.20
18.75
18.30

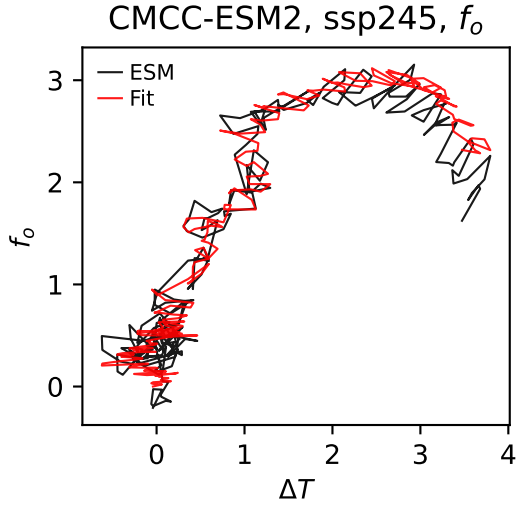

CMCC-ESM2, ssp245, npp, ln(MSE/SIGMA)
509, -1.5445, 36.3825, 1.5643, 0.1513, 0.0000, 0.9000, 0.9800, 0.
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
npp_c_l
CMCC-ESM2
21.12
20.88
20.64
20.40
20.16
19.92
19.68
19.44
19.20

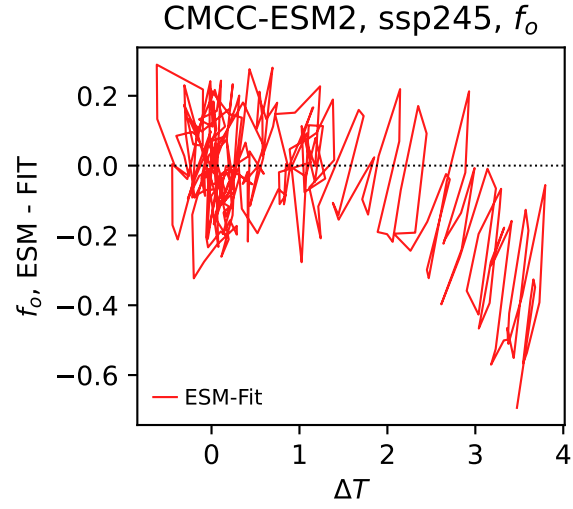

CMCC-ESM2, ssp245, npp, ln(MSE/SIGMA)
509, -1.5445, 36.3825, 1.5643, 0.1513, 0.0000, 0.9000, 0.9800, 0.
CMCC-ESM2
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.2
21.6
21.0
20.4
19.8
19.2
18.6
18.0
17.4

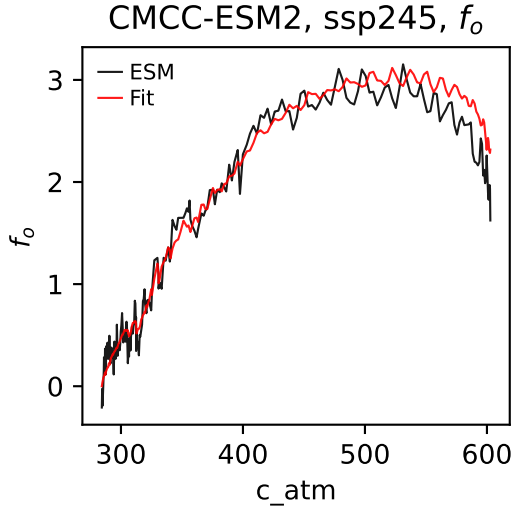

CMCC-ESM2, ssp245, npp, ln(MSE/SIGMA)
509, -1.5445, 36.3825, 1.5643, 0.1513, 0.0000, 0.9000, 0.9800, 0.
1e−12+1.97883943361
CMCC-ESM2
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
npp_slow
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast
82.199
81.748
81.300
80.849
80.398
79.950
79.499
79.048
78.600
78.149

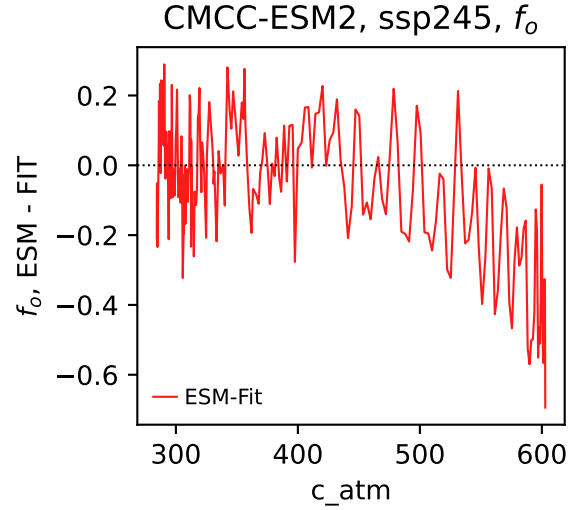

CMCC-ESM2, ssp245, f_o
ESM
Fit
f_o
Year

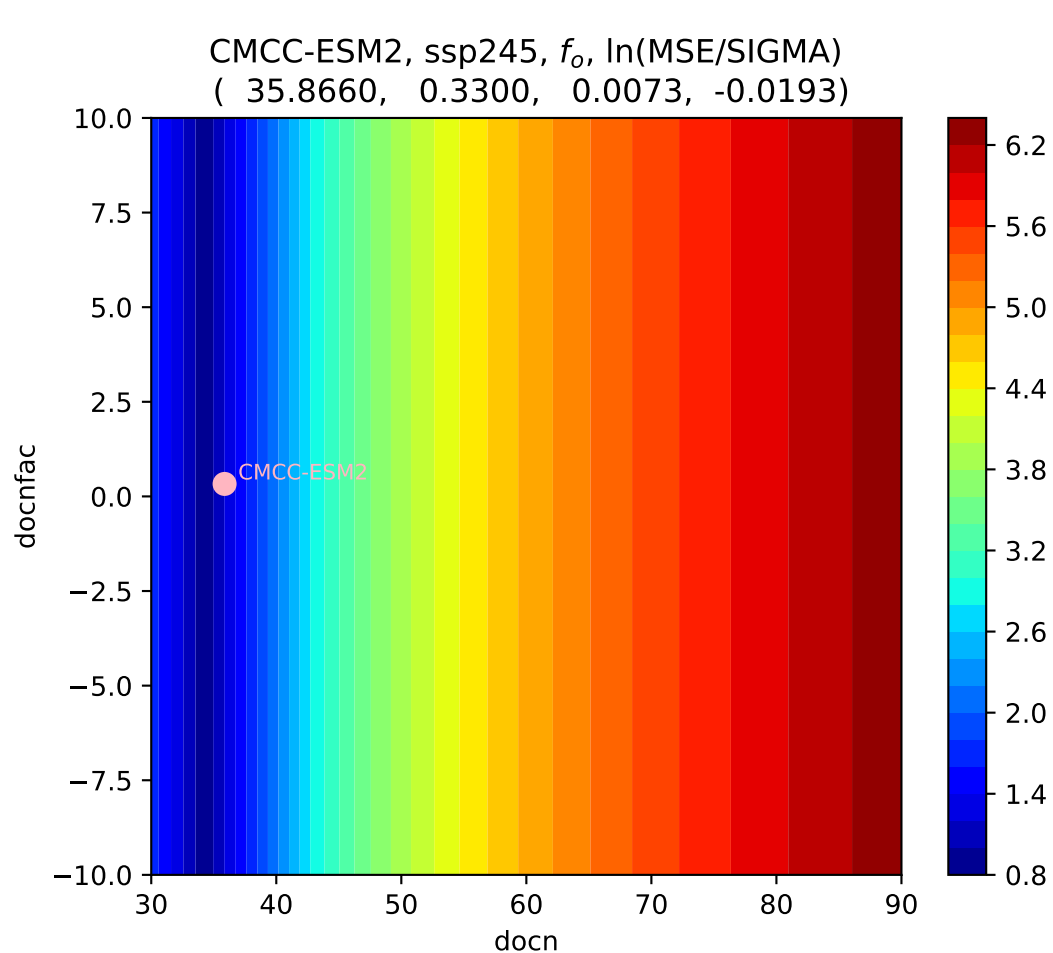

CMCC-ESM2, ssp245, f_o
f_o, ESM - FIT
ESM-Fit
Year

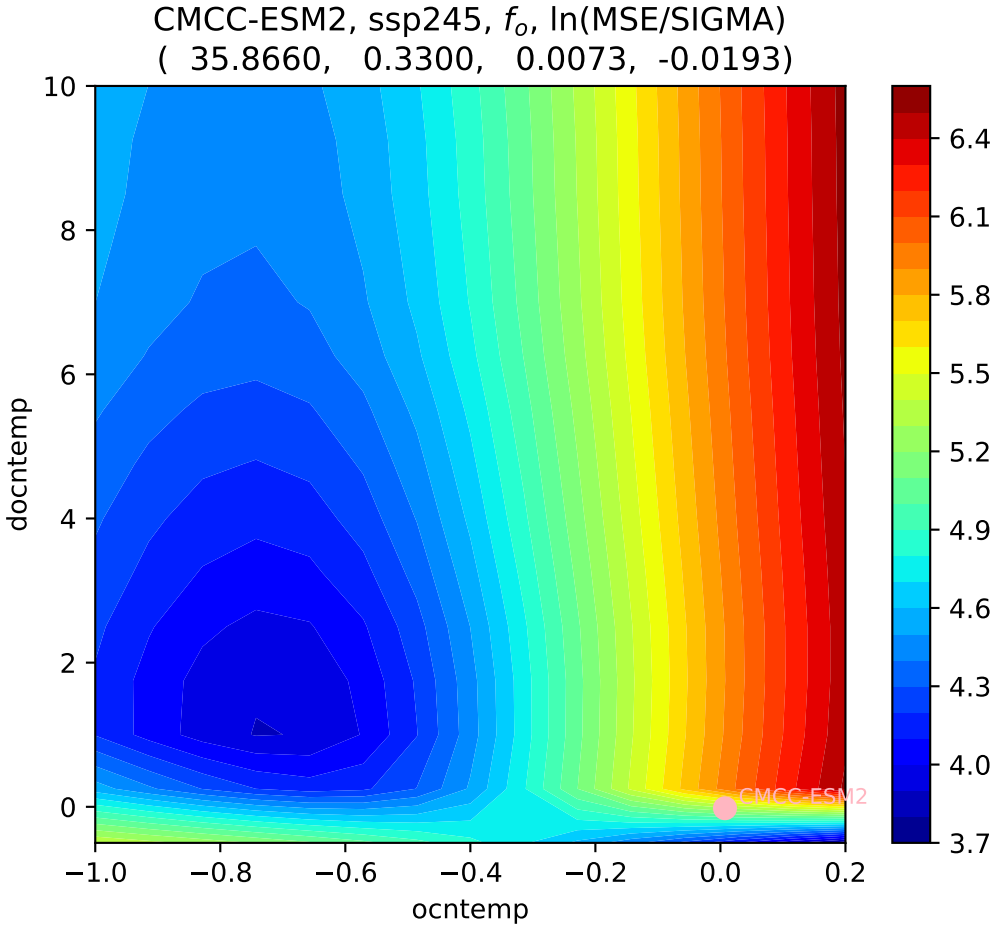

CMCC-ESM2, ssp245, f_o
ESM
Fit
f_o
ΔT


CMCC-ESM2, ssp245, f_o
f_o, ESM - FIT
ESM-Fit
ΔT


CMCC-ESM2, ssp245, f_o
ESM
Fit
f_o
c_atm


CMCC-ESM2, ssp245, f_o
f_o, ESM - FIT
ESM-Fit
c_atm


CMCC-ESM2, ssp245, f_o, ln(MSE/SIGMA)
(35.8660, 0.3300, 0.0073, -0.0193)
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
6.2
5.6
5.0
4.4
3.8
3.2
2.6
2.0
1.4
0.8


CMCC-ESM2, ssp245, f_o, ln(MSE/SIGMA)
(35.8660, 0.3300, 0.0073, -0.0193)
docntemp
ocntemp
10
8
6
4
2
0
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
6.4
6.1
5.8
5.5
5.2
4.9
4.6
4.3
4.0
3.7
CMCC-ESM2