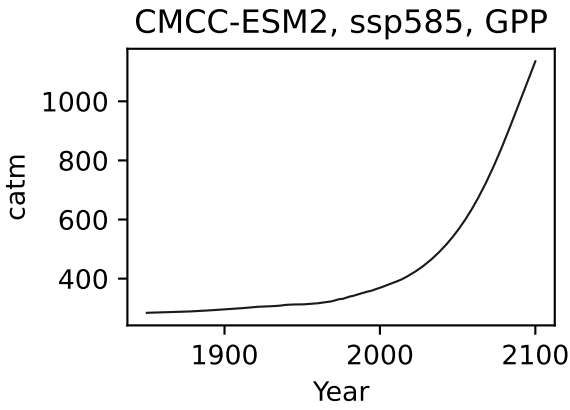
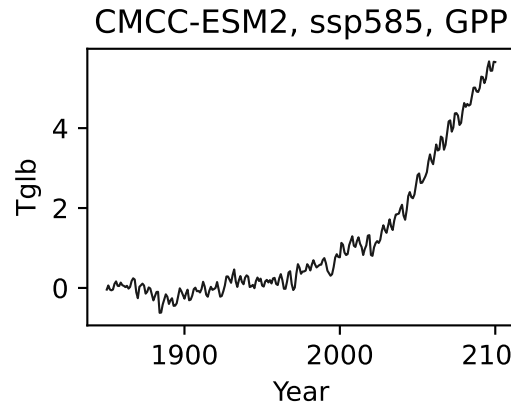
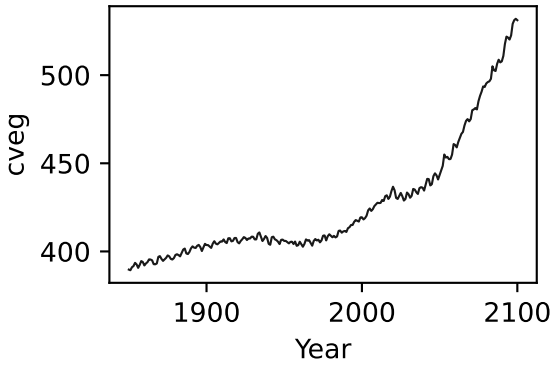
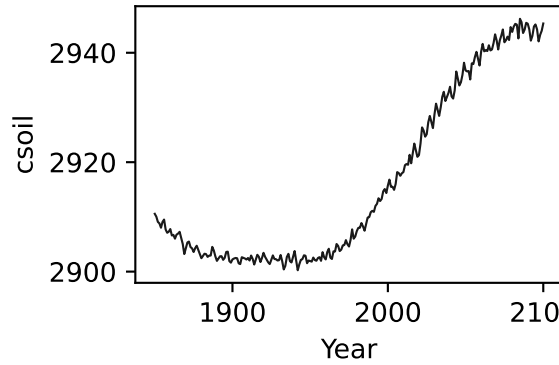
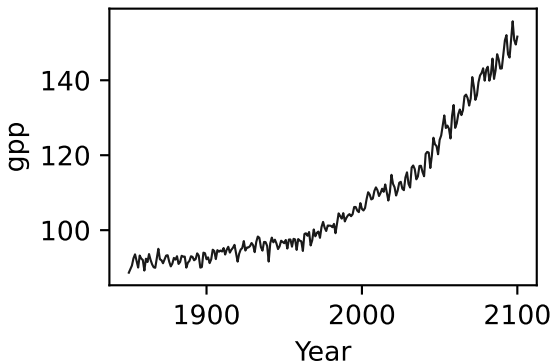
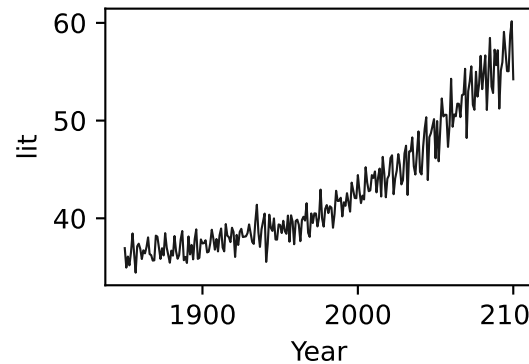

CMCC-ESM2, ssp585, GPP
catm
1000
800
600
400
1900
2000
2100
Year

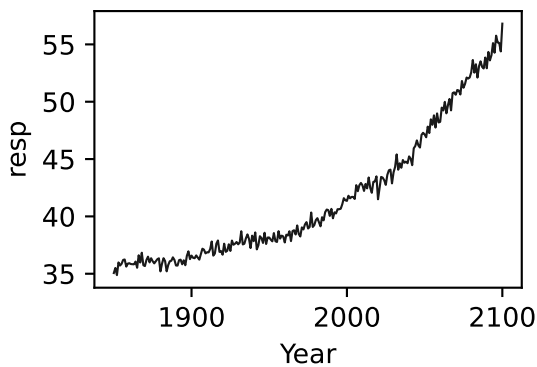

CMCC-ESM2, ssp585, GPP
Tglb
4
2
0
1900
2000
2100
Year

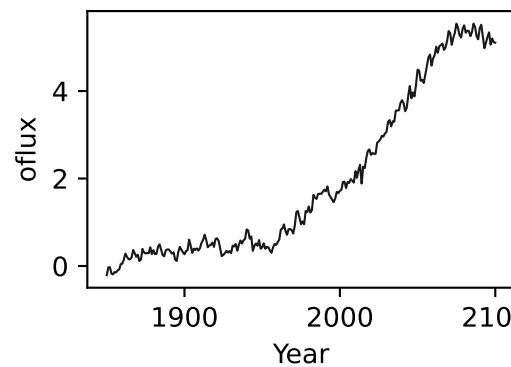

cveg
500
450
400
1900
2000
2100
Year

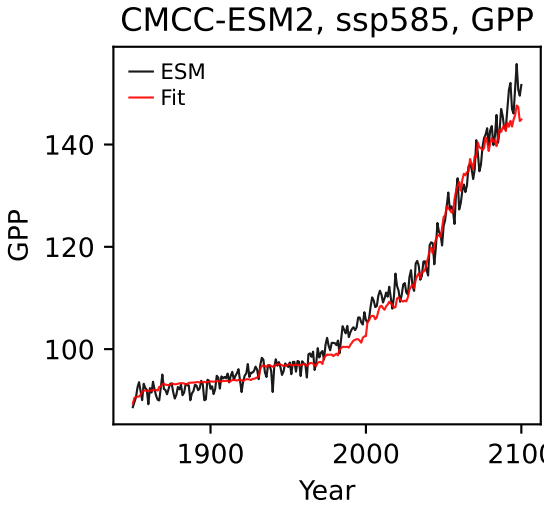

csoil
2940
2920
2900
1900
2000
2100
Year

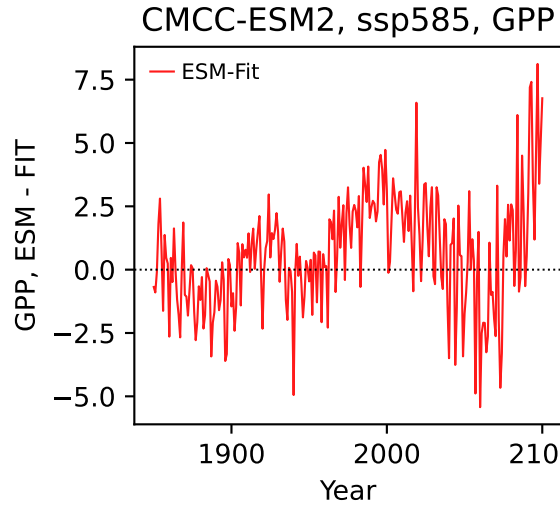

gpp
140
120
100
1900
2000
2100
Year

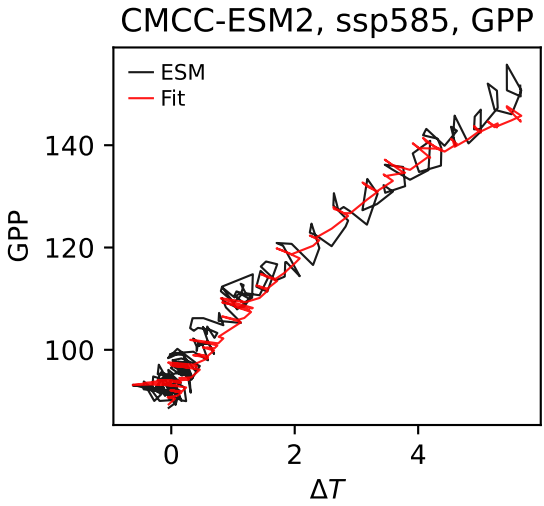

lit
60
50
40
1900
2000
2100
Year

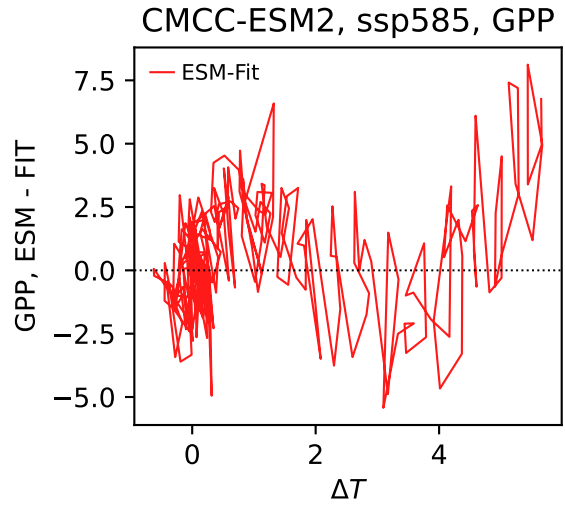

resp
55
50
45
40
35
1900
2000
2100
Year

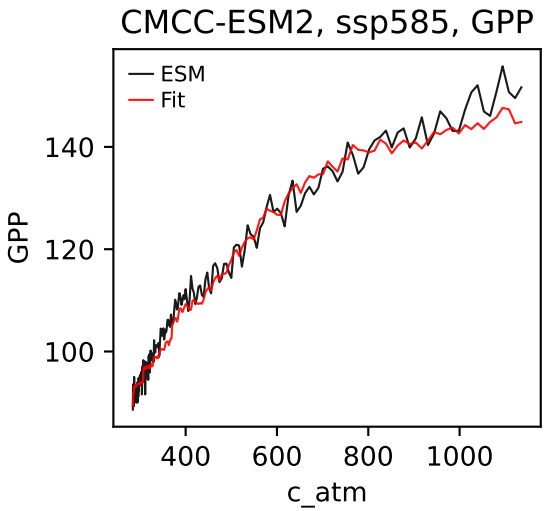

oflux
4
2
0
1900
2000
2100
Year

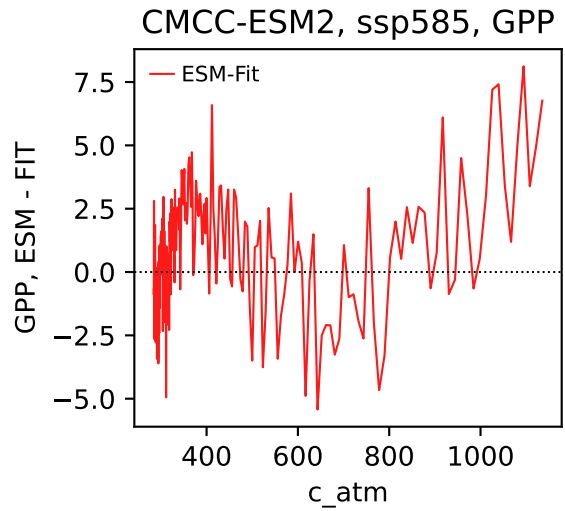

CMCC-ESM2, ssp585, GPP
ESM
Fit
GPP
140
120
100
1900
2000
2100
Year

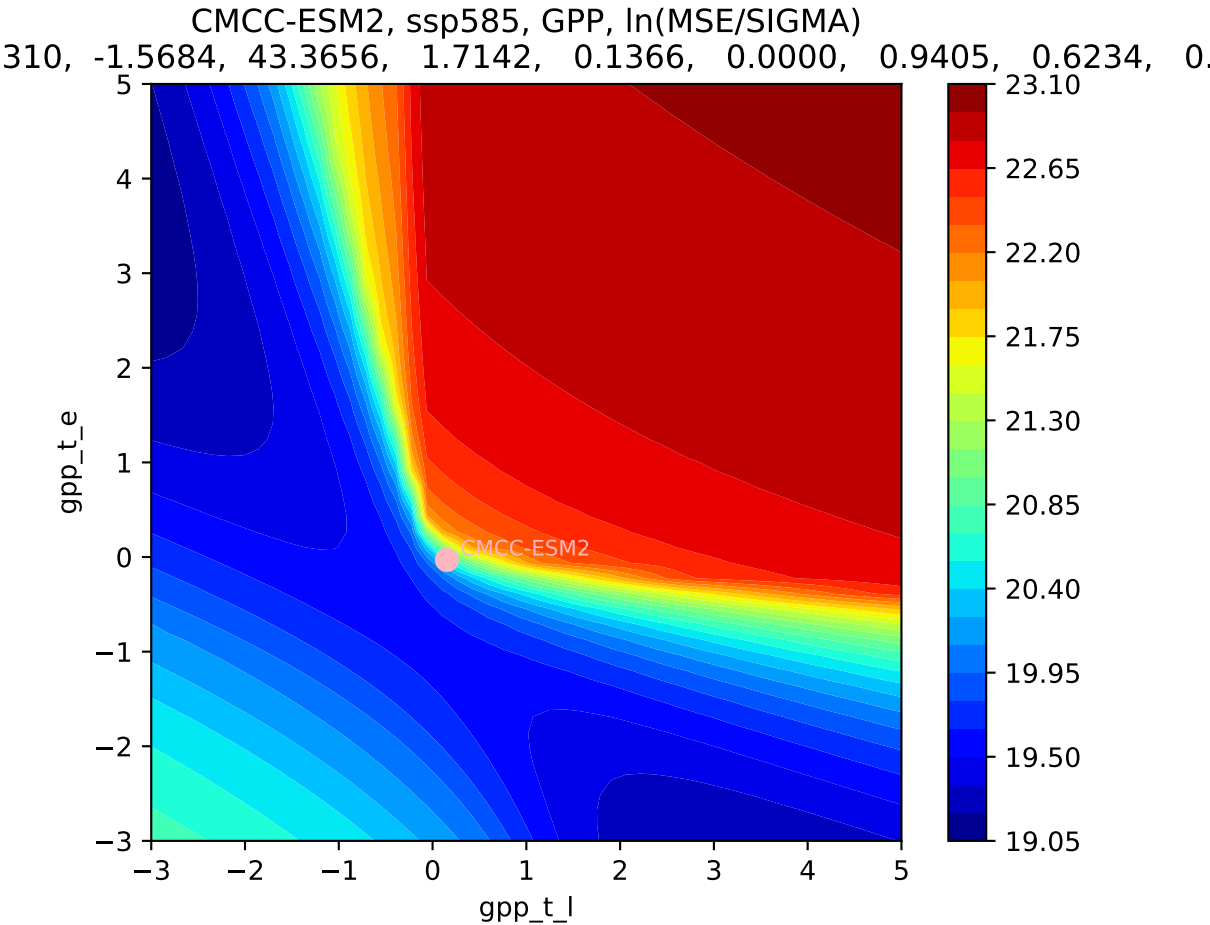

CMCC-ESM2, ssp585, GPP
ESM-Fit
GPP, ESM - FIT
7.5
5.0
2.5
0.0
−2.5
−5.0
1900
2000
2100
Year

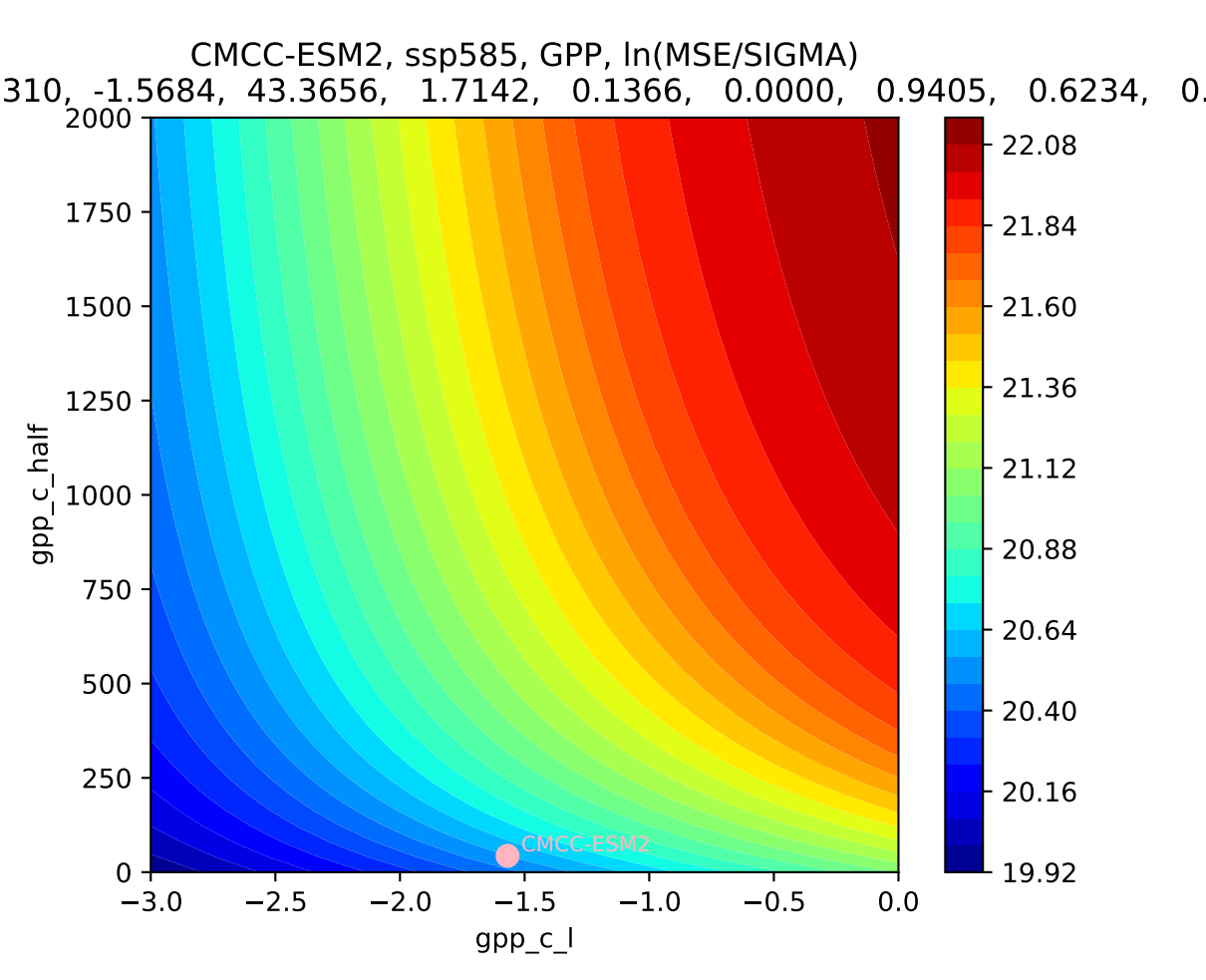

CMCC-ESM2, ssp585, GPP
ESM
Fit
GPP
140
120
100
0
2
4
ΔT

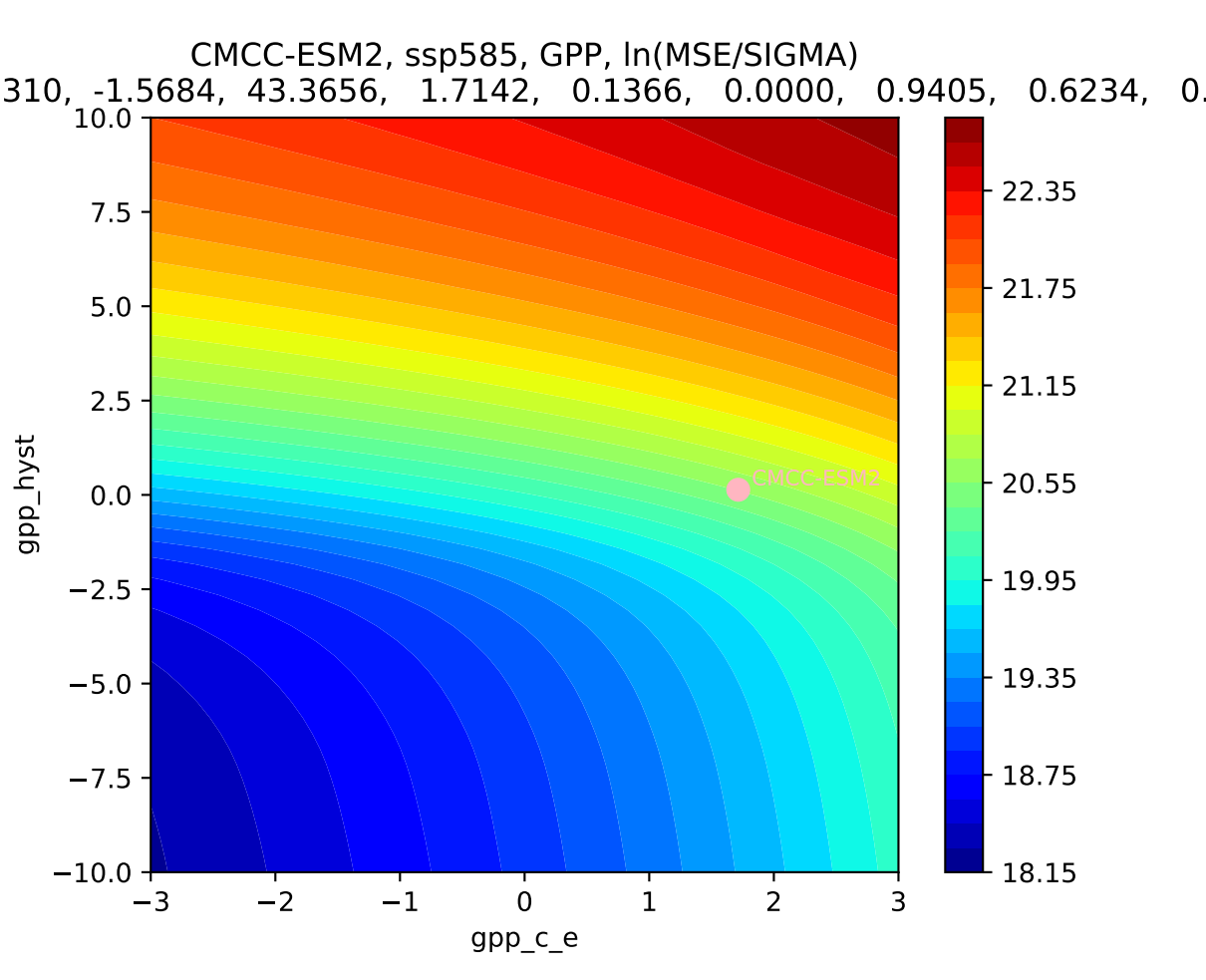

CMCC-ESM2, ssp585, GPP
ESM-Fit
GPP, ESM - FIT
7.5
5.0
2.5
0.0
−2.5
−5.0
0
2
4
ΔT

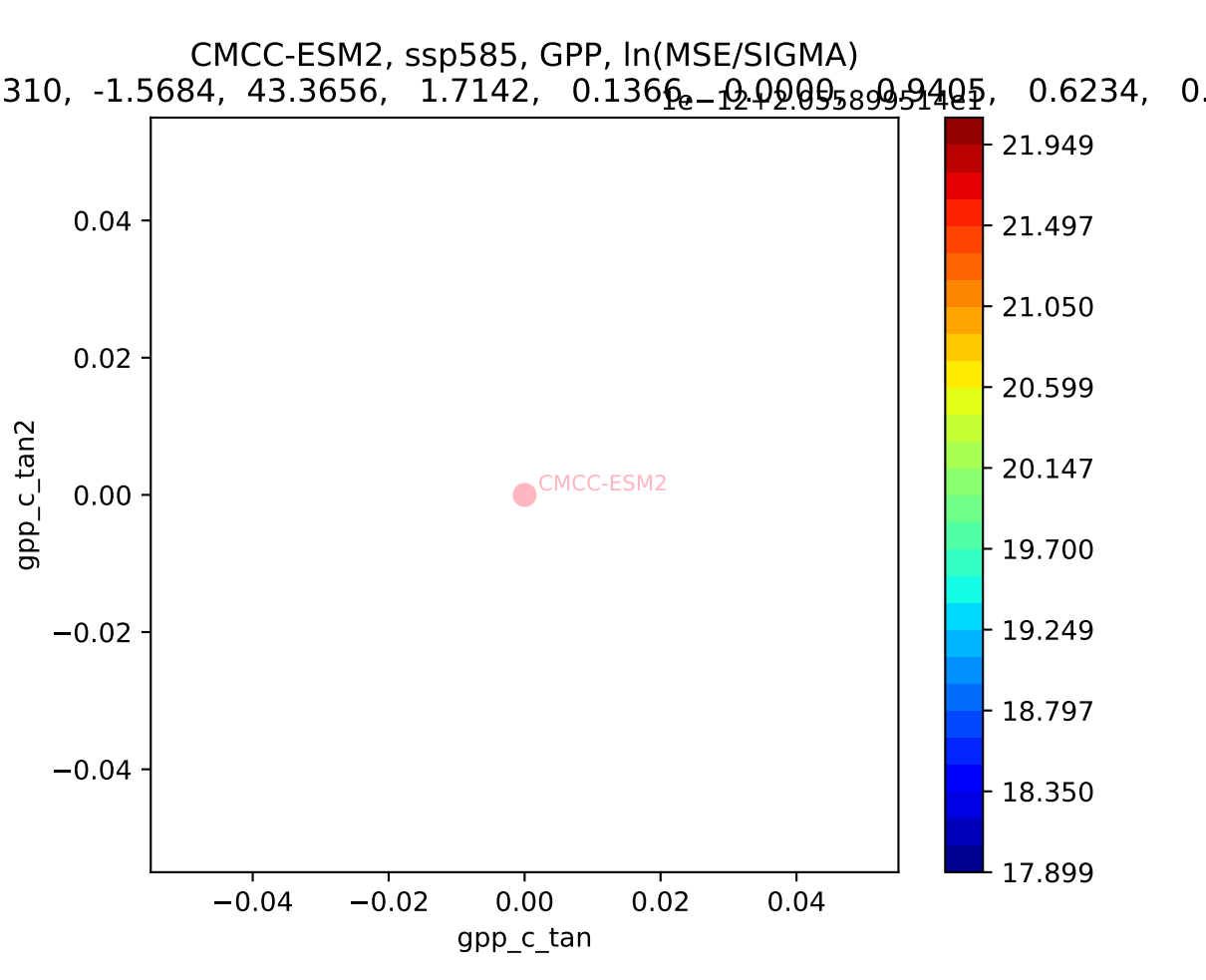

CMCC-ESM2, ssp585, GPP
ESM
Fit
GPP
140
120
100
400
600
800
1000
c_atm

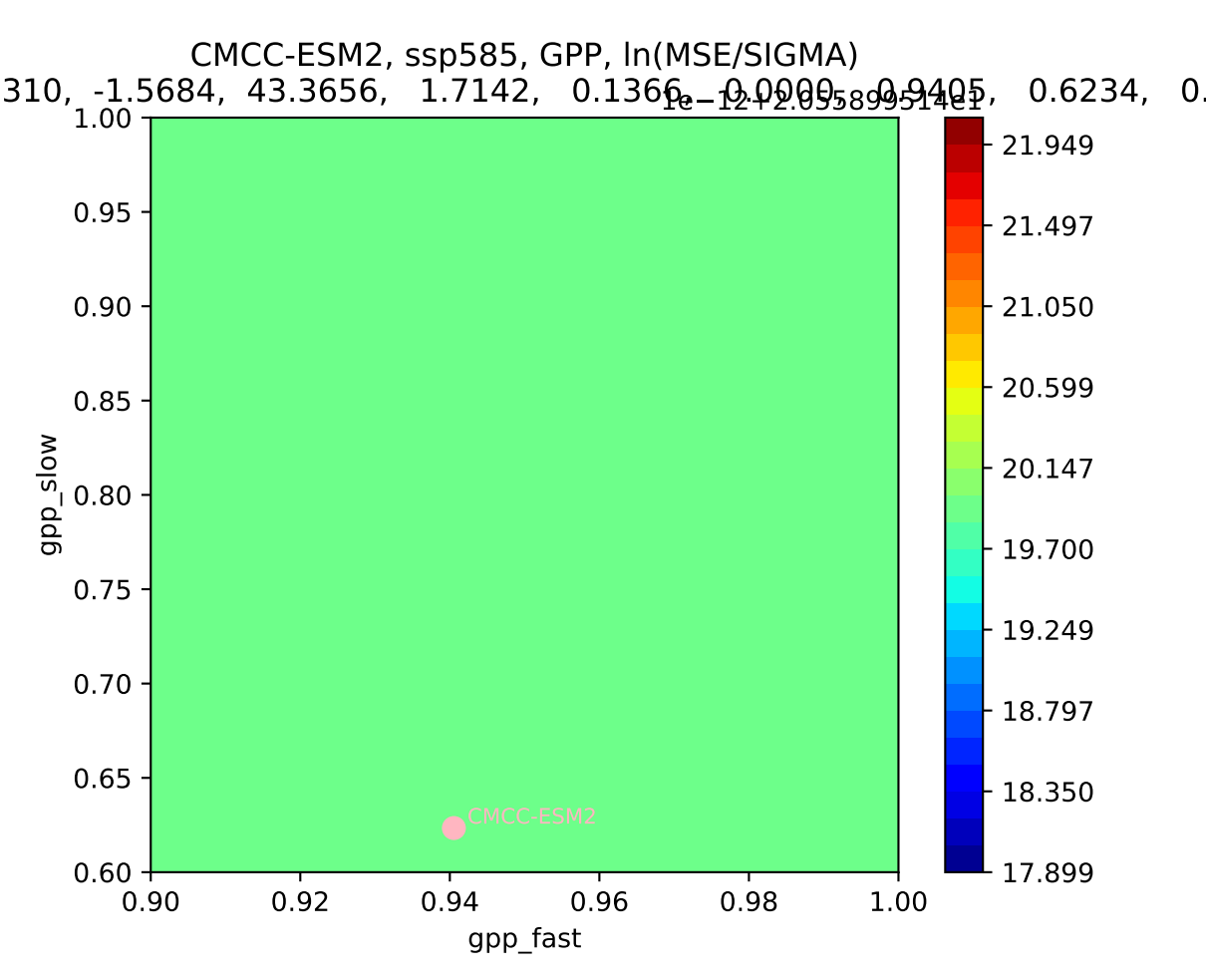

CMCC-ESM2, ssp585, GPP
ESM-Fit
GPP, ESM - FIT
7.5
5.0
2.5
0.0
−2.5
−5.0
400
600
800
1000
c_atm

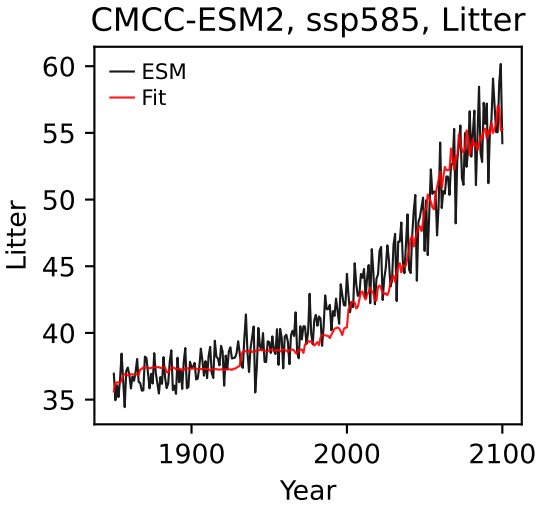

CMCC-ESM2, ssp585, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
CMCC-ESM2
gpp_t_e
gpp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
23.10
22.65
22.20
21.75
21.30
20.85
20.40
19.95
19.50
19.05

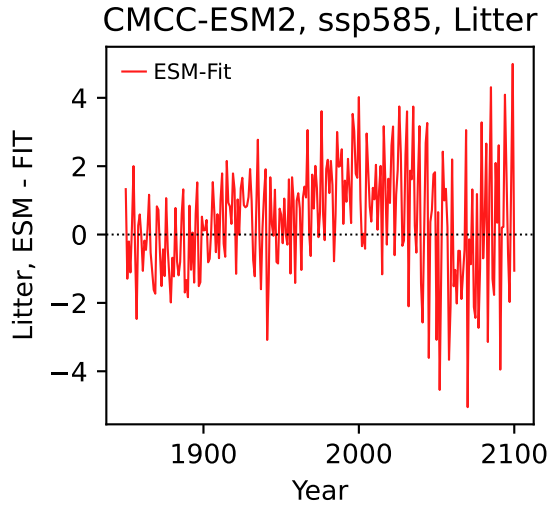

CMCC-ESM2, ssp585, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
gpp_c_half
gpp_c_l
CMCC-ESM2
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
22.08
21.84
21.60
21.36
21.12
20.88
20.64
20.40
20.16
19.92

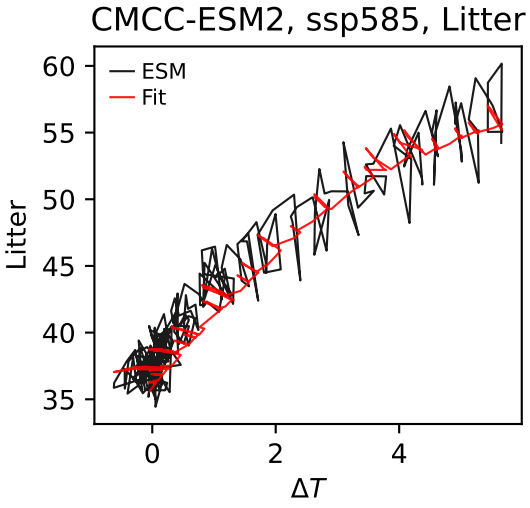

CMCC-ESM2, ssp585, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
gpp_hyst
gpp_c_e
CMCC-ESM2
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.35
21.75
21.15
20.55
19.95
19.35
18.75
18.15

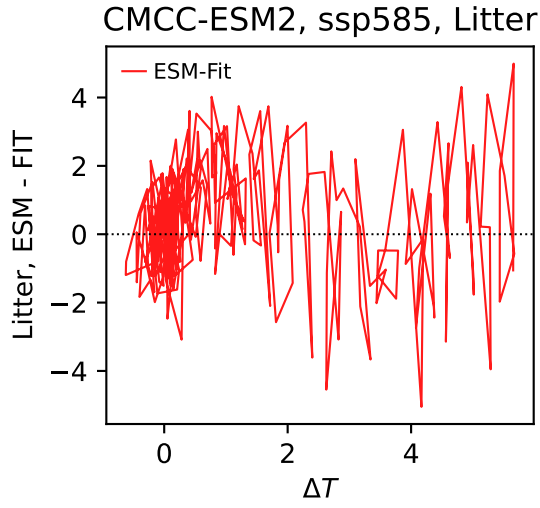

CMCC-ESM2, ssp585, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
1e−12+2.055899514e1
21.949
21.497
21.050
20.599
20.147
19.700
19.249
18.797
18.350
17.899
CMCC-ESM2
0.04
0.02
0.00
−0.02
−0.04
gpp_c_tan2
−0.04
−0.02
0.00
0.02
0.04
gpp_c_tan

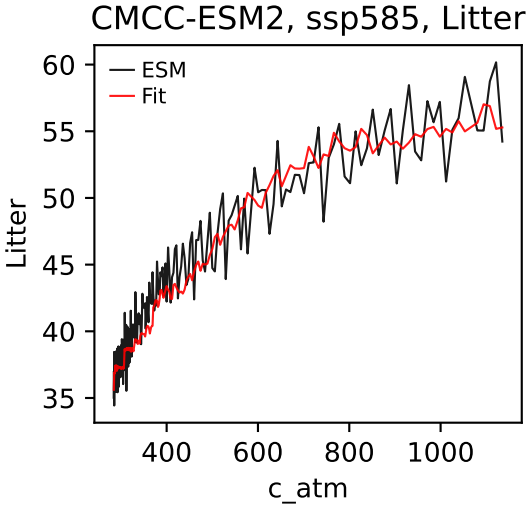

CMCC-ESM2, ssp585, GPP, ln(MSE/SIGMA)
310, -1.5684, 43.3656, 1.7142, 0.1366, 0.0000, 0.9405, 0.6234, 0.
1e−12+2.055899514e1
21.949
21.497
21.050
20.599
20.147
19.700
19.249
18.797
18.350
17.899
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
gpp_slow
0.90
0.92
0.94
0.96
0.98
1.00
gpp_fast
CMCC-ESM2

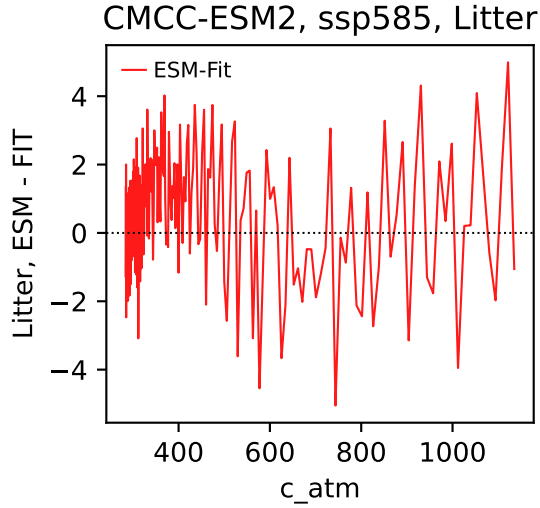

CMCC-ESM2, ssp585, Litter
ESM
Fit
Litter
Year

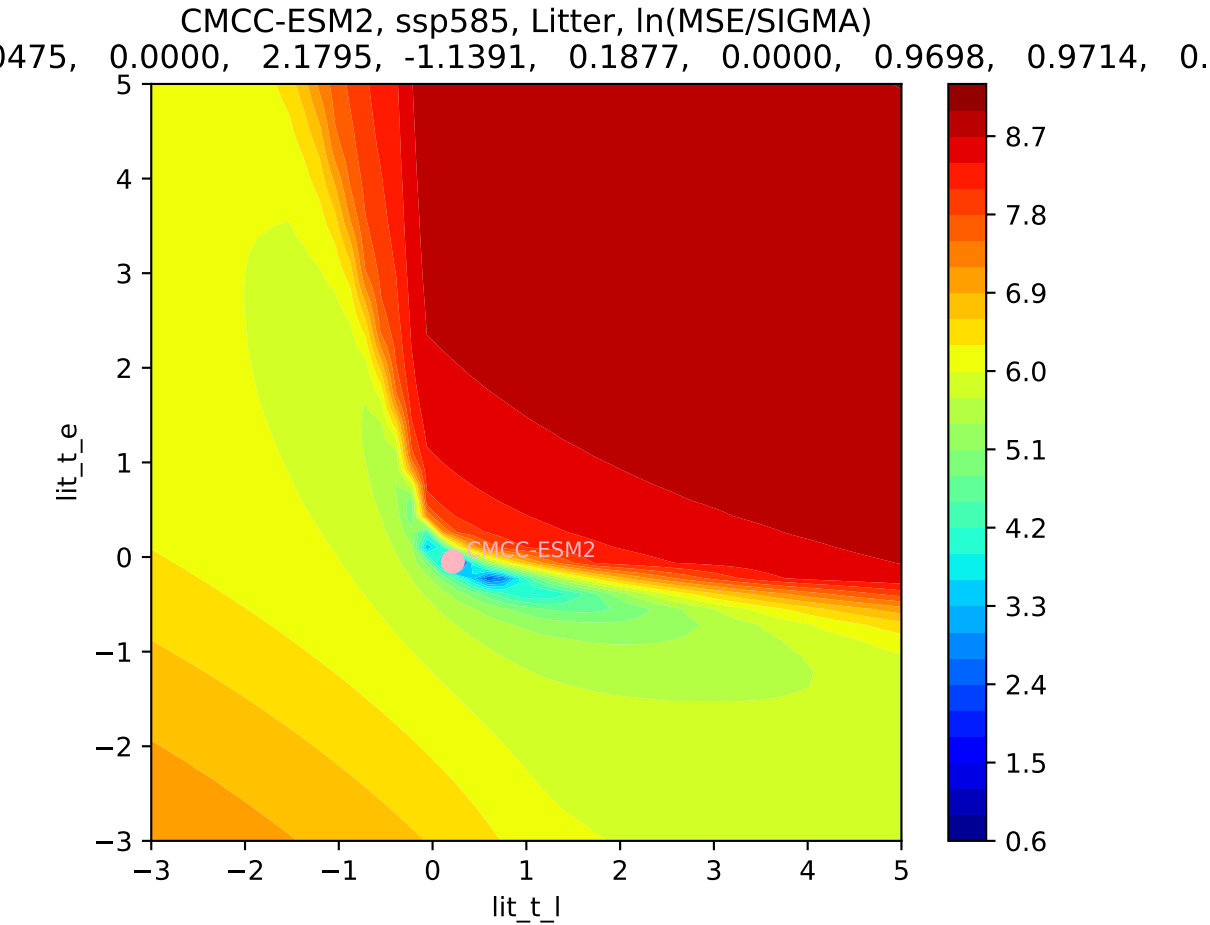

CMCC-ESM2, ssp585, Litter
ESM-Fit
Litter, ESM - FIT
Year

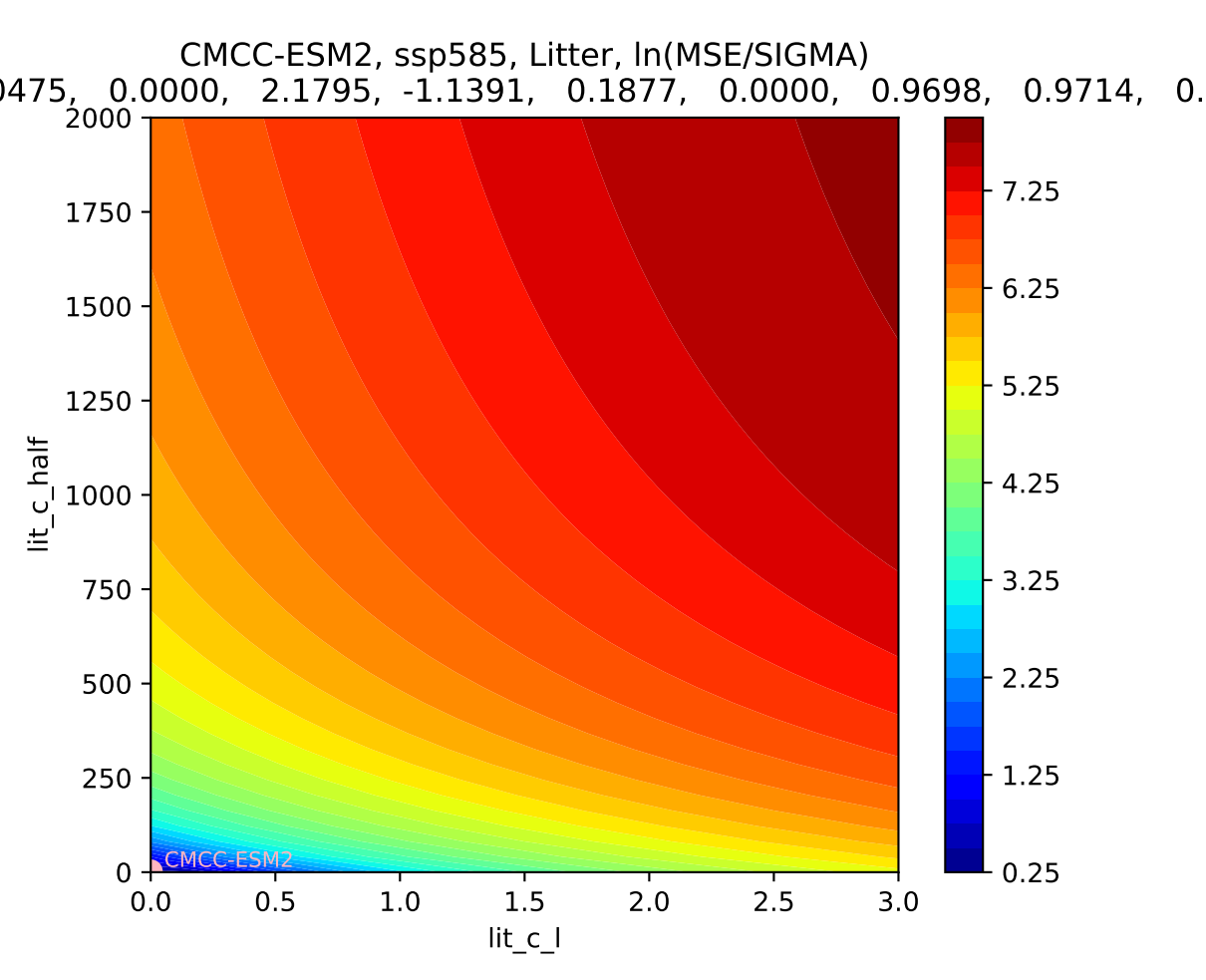

CMCC-ESM2, ssp585, Litter
ESM
Fit
Litter
ΔT

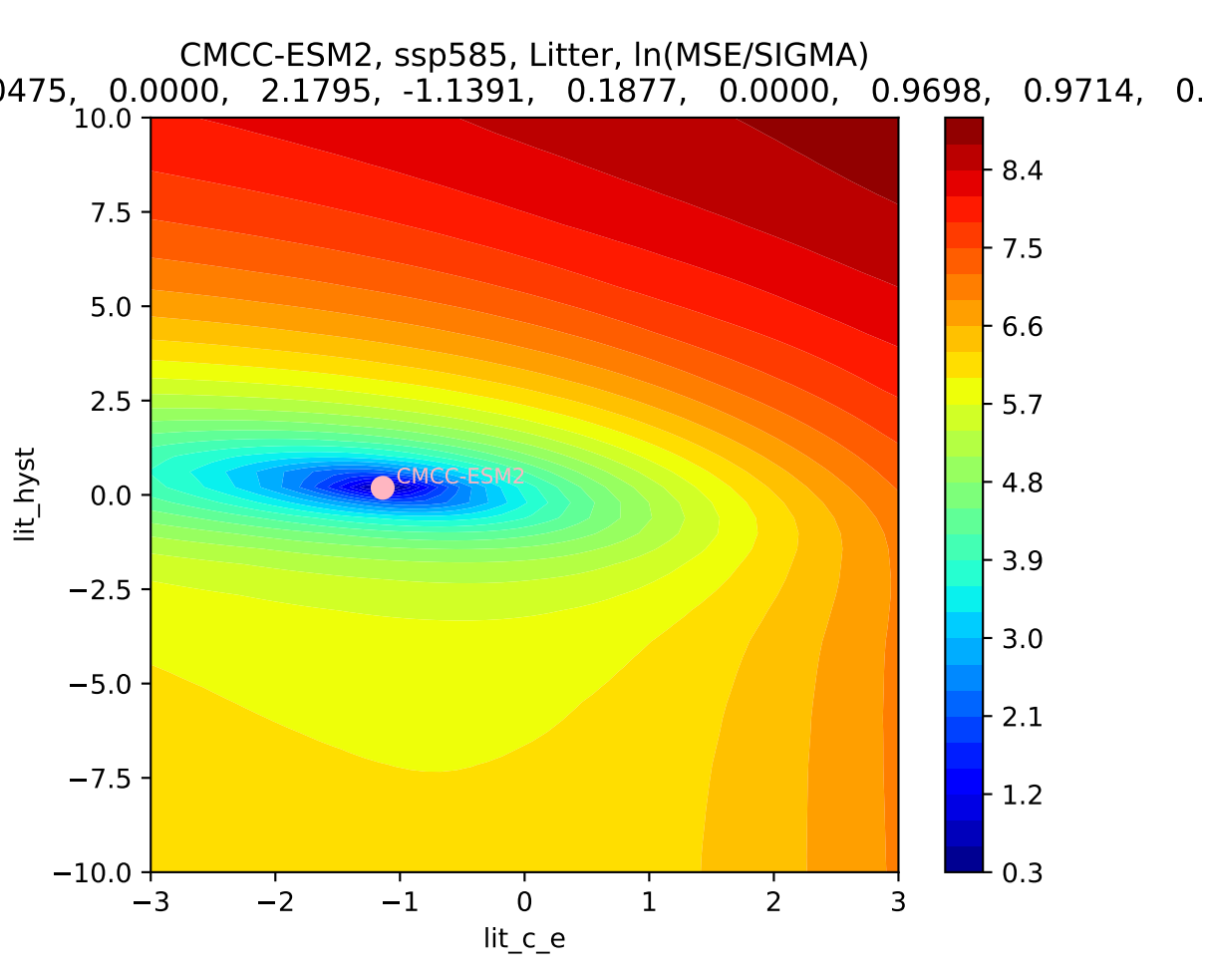

CMCC-ESM2, ssp585, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

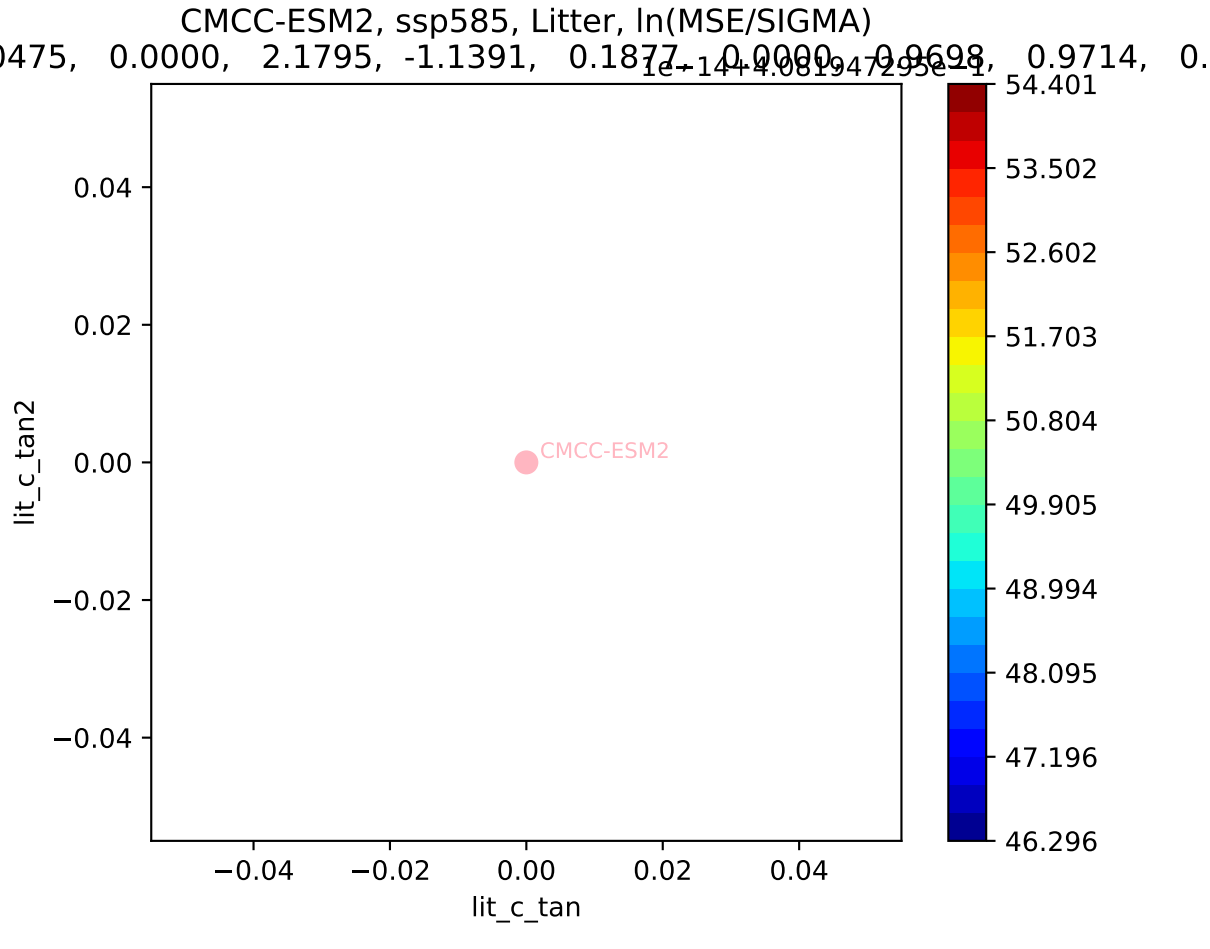

CMCC-ESM2, ssp585, Litter
ESM
Fit
Litter
c_atm

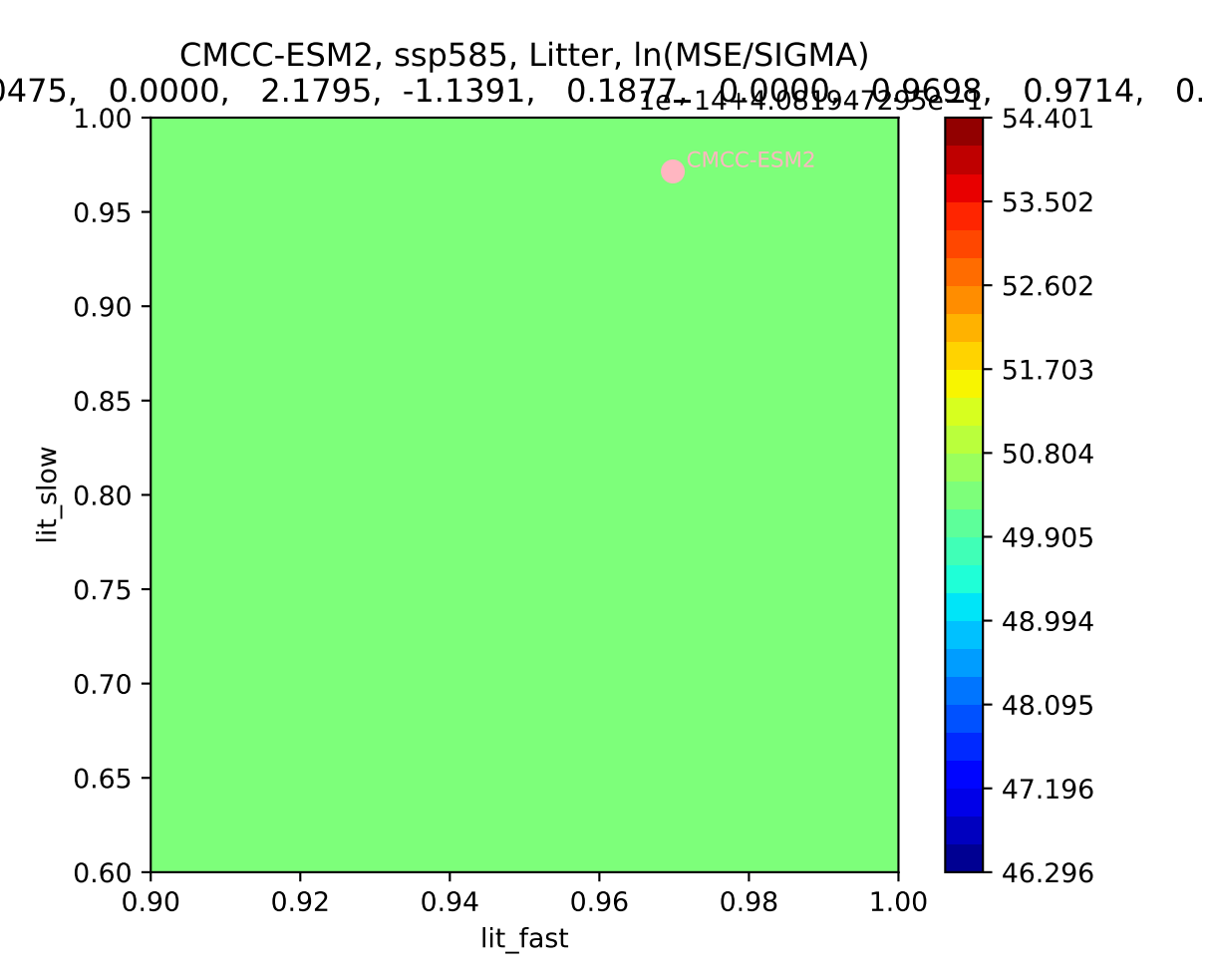

CMCC-ESM2, ssp585, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

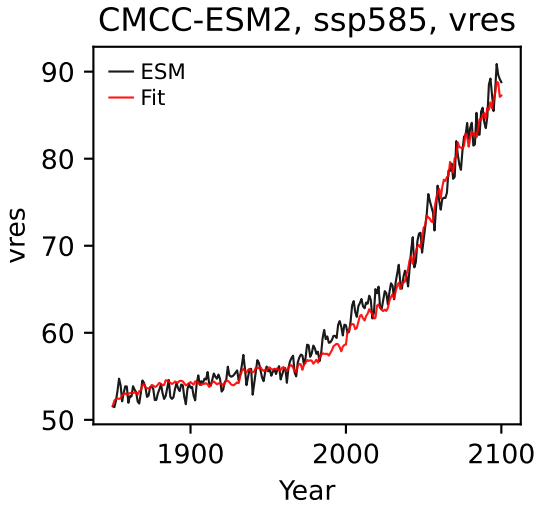

CMCC-ESM2, ssp585, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
CMCC-ESM2
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
8.7
7.8
6.9
6.0
5.1
4.2
3.3
2.4
1.5
0.6

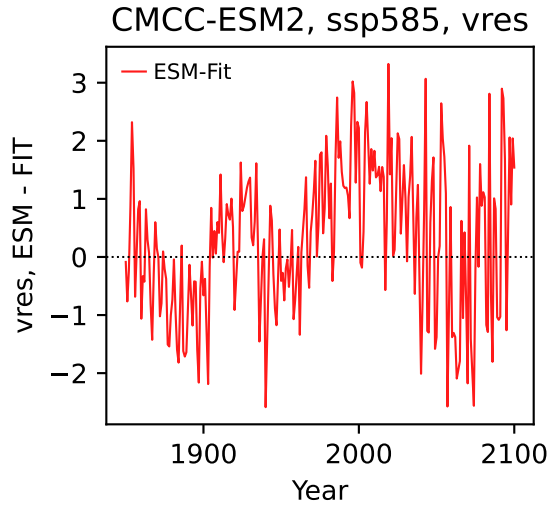

CMCC-ESM2, ssp585, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
lit_c_half
lit_c_l
CMCC-ESM2
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
7.25
6.25
5.25
4.25
3.25
2.25
1.25
0.25

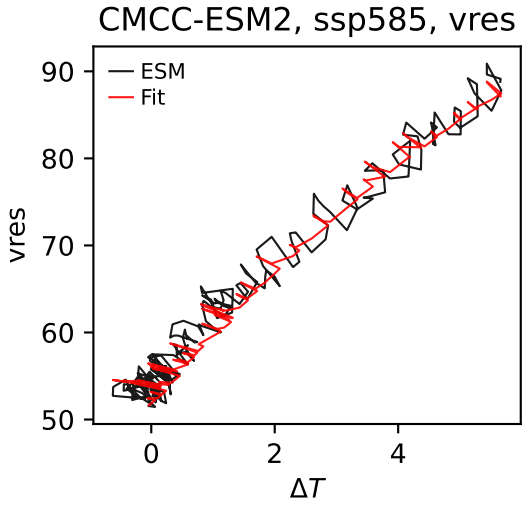

CMCC-ESM2, ssp585, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
CMCC-ESM2
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
8.4
7.5
6.6
5.7
4.8
3.9
3.0
2.1
1.2
0.3

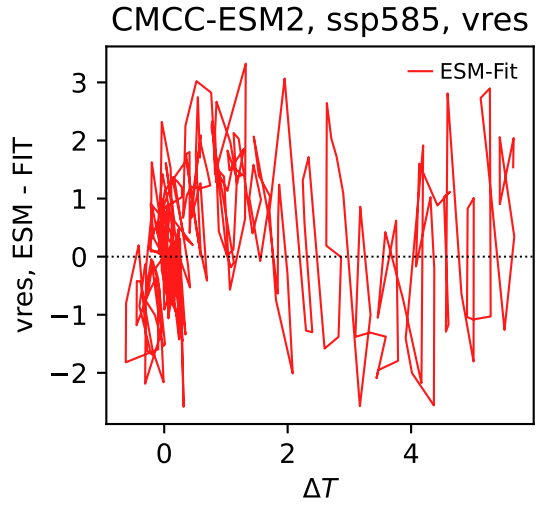

CMCC-ESM2, ssp585, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
1e+14+4.081947295e+1
CMCC-ESM2
0.04
0.02
0.00
−0.02
−0.04
lit_c_tan2
−0.04
−0.02
0.00
0.02
0.04
lit_c_tan
54.401
53.502
52.602
51.703
50.804
49.905
48.994
48.095
47.196
46.296

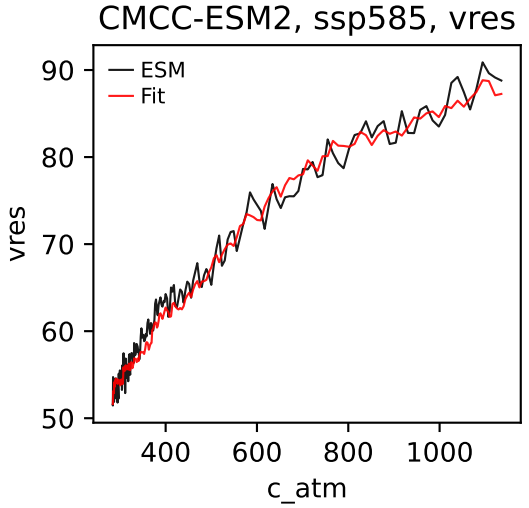

CMCC-ESM2, ssp585, Litter, ln(MSE/SIGMA)
0475, 0.0000, 2.1795, -1.1391, 0.1877, 0.0000, 0.9698, 0.9714, 0.
1e+14+4.081947295e+1
CMCC-ESM2
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
lit_slow
0.90
0.92
0.94
0.96
0.98
1.00
lit_fast
54.401
53.502
52.602
51.703
50.804
49.905
48.994
48.095
47.196
46.296

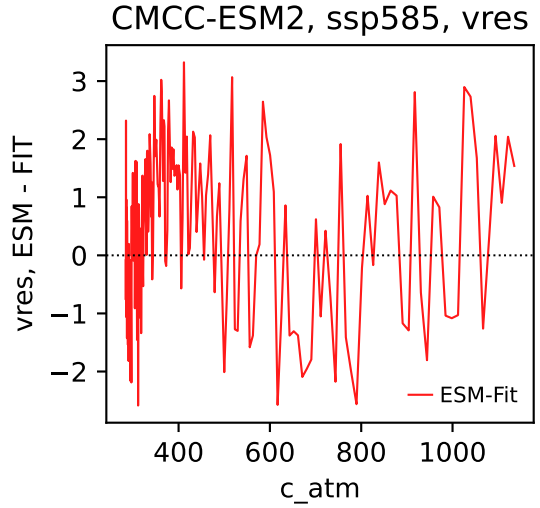

CMCC-ESM2, ssp585, vres
ESM
Fit
vres
Year

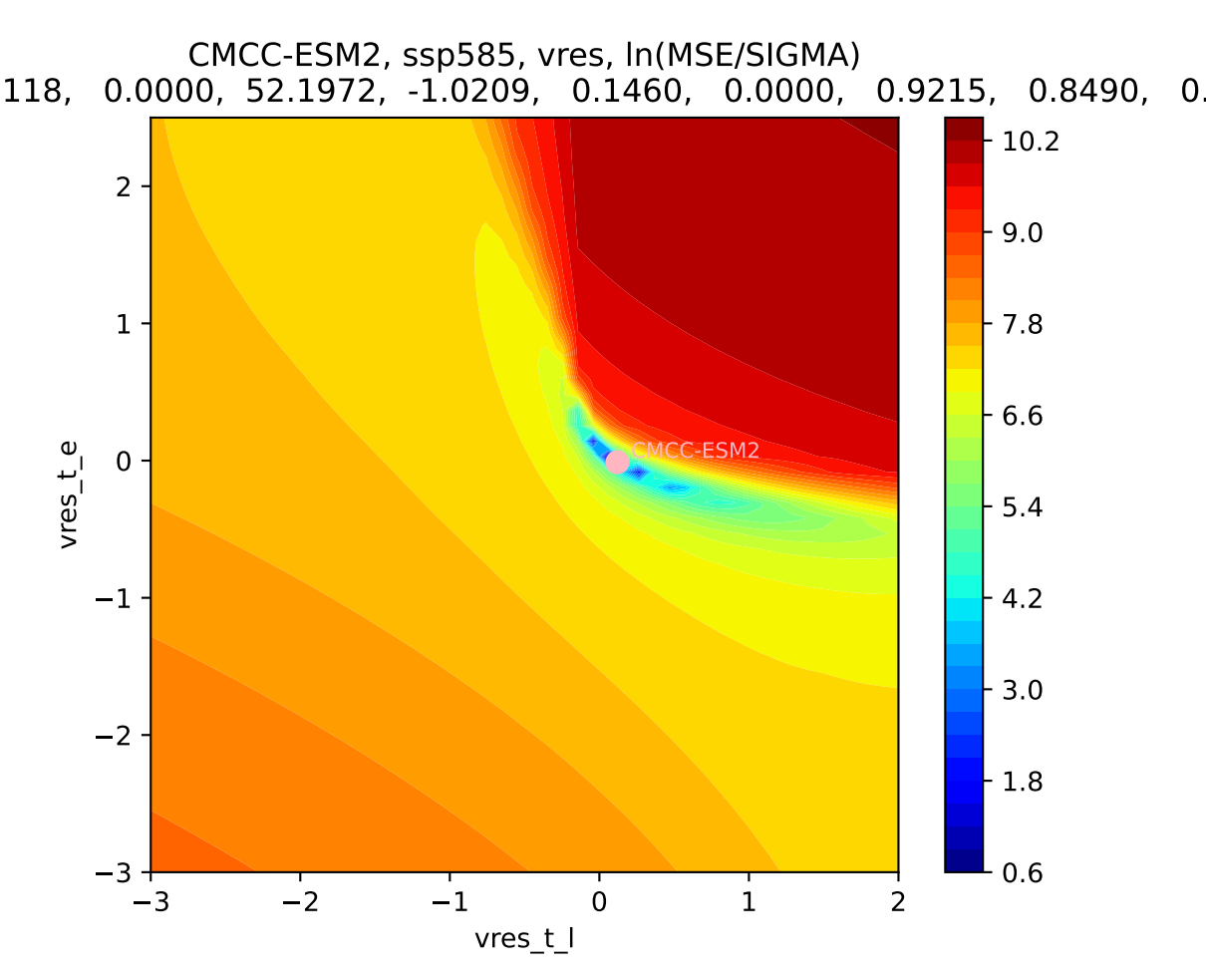

CMCC-ESM2, ssp585, vres
ESM-Fit
vres, ESM - FIT
Year

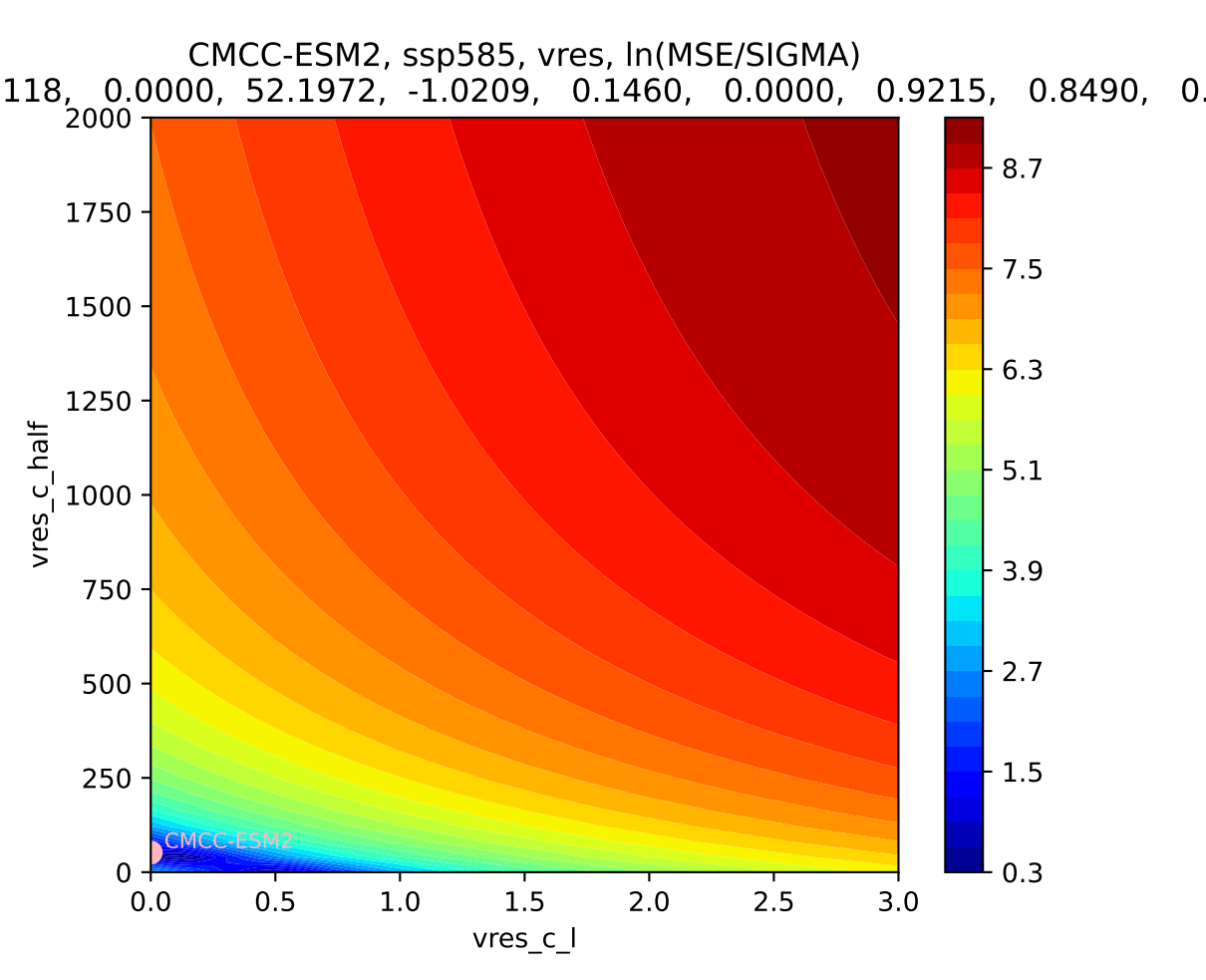

CMCC-ESM2, ssp585, vres
ESM
Fit
vres
ΔT

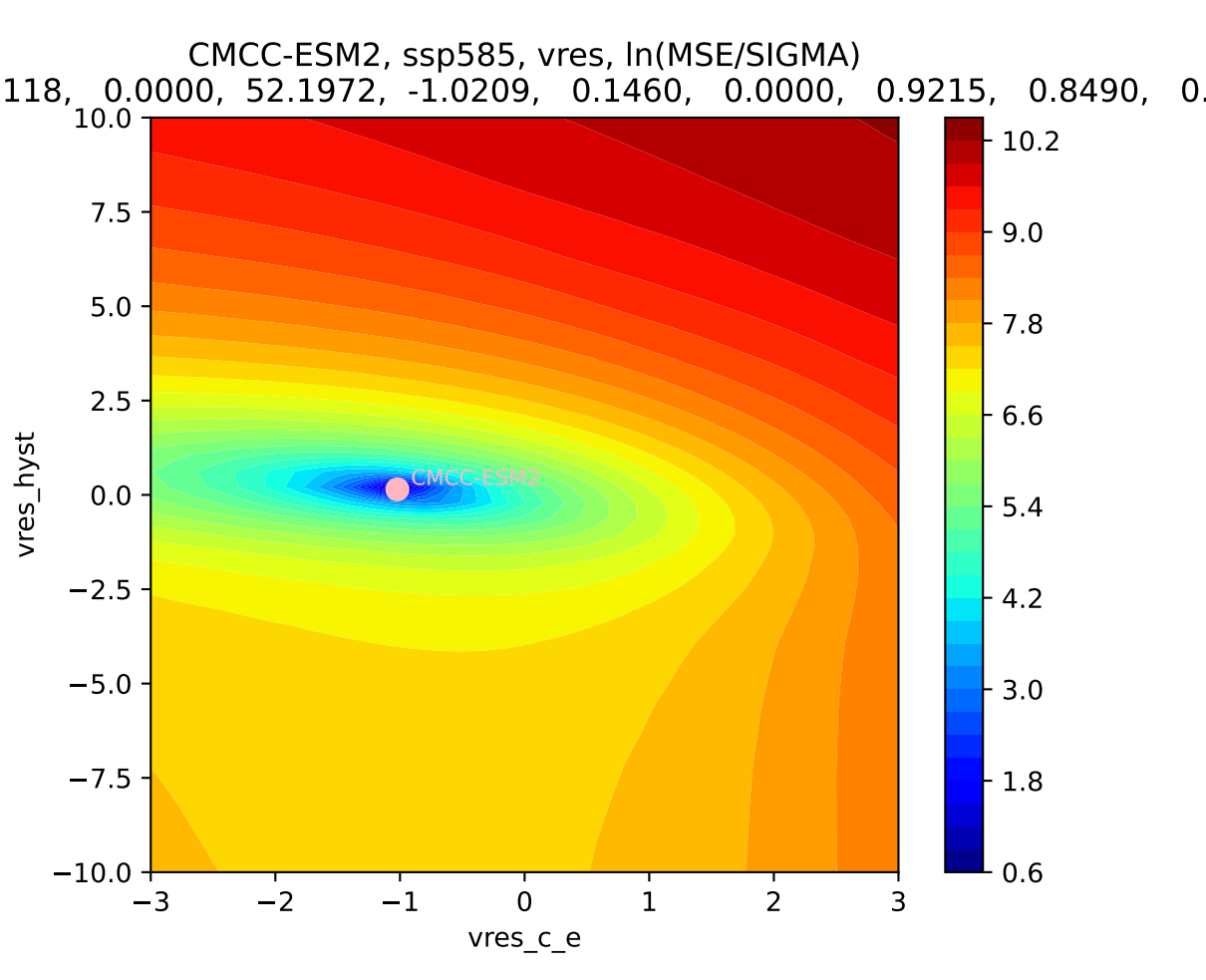

CMCC-ESM2, ssp585, vres
ESM-Fit
vres, ESM - FIT
ΔT

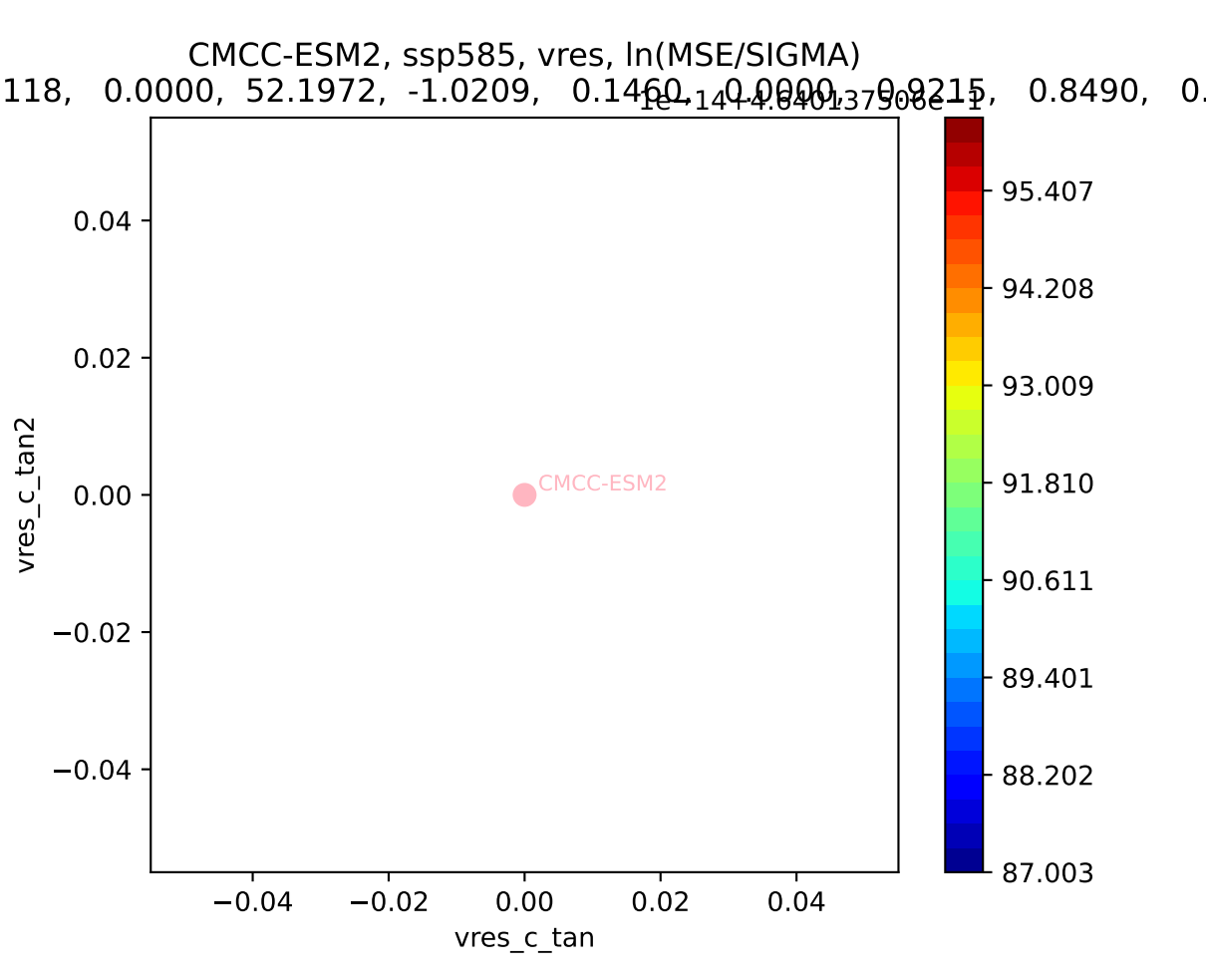

CMCC-ESM2, ssp585, vres
ESM
Fit
vres
c_atm

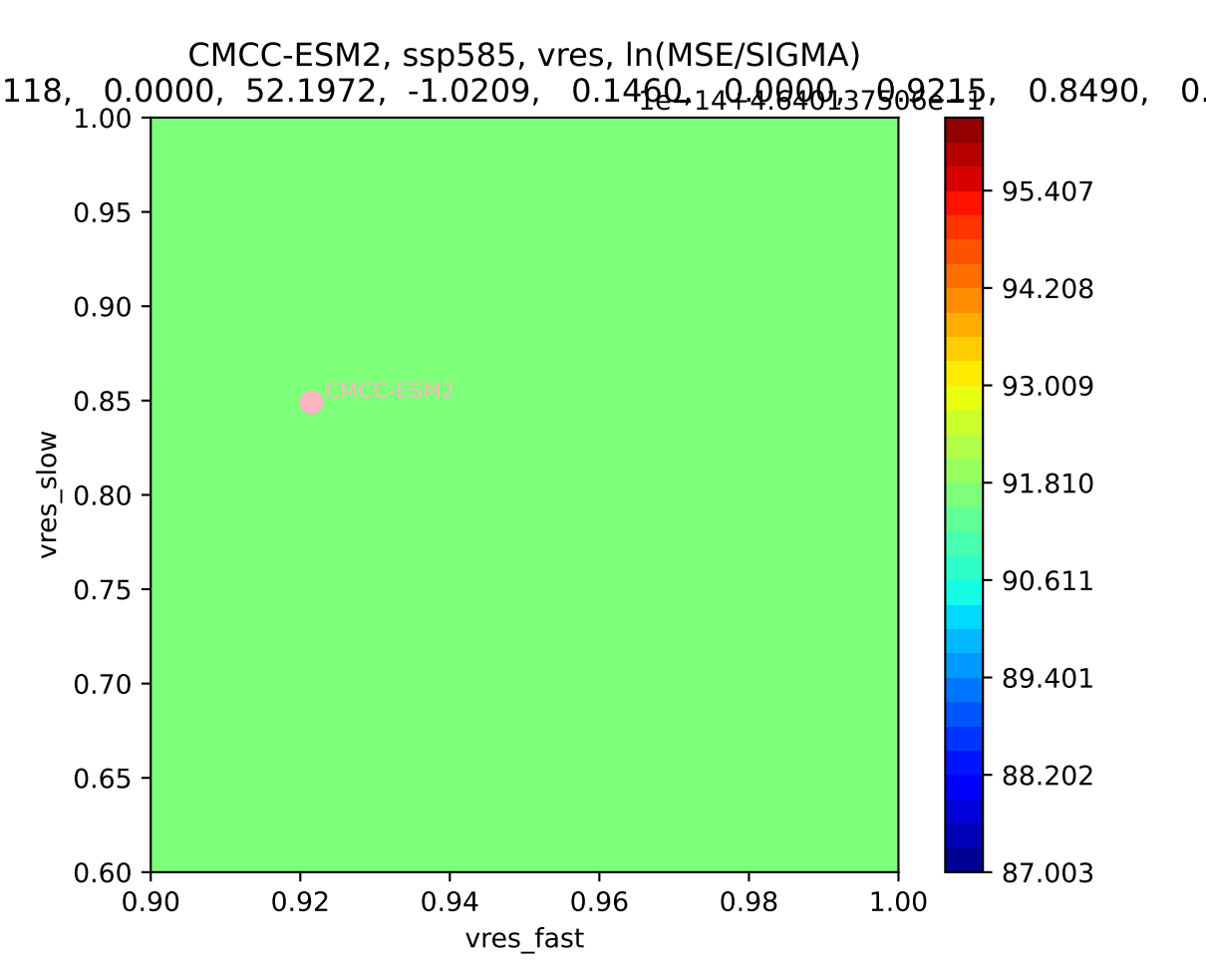

CMCC-ESM2, ssp585, vres
ESM-Fit
vres, ESM - FIT
c_atm

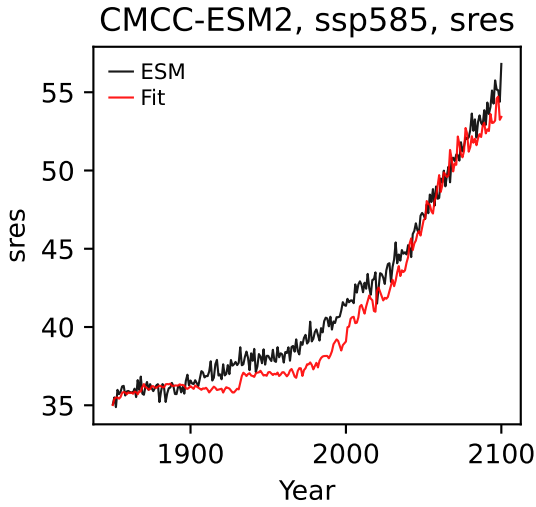

CMCC-ESM2, ssp585, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
CMCC-ESM2
vres_t_e
vres_t_l
−3
−2
−1
0
1
2
10.2
9.0
7.8
6.6
5.4
4.2
3.0
1.8
0.6

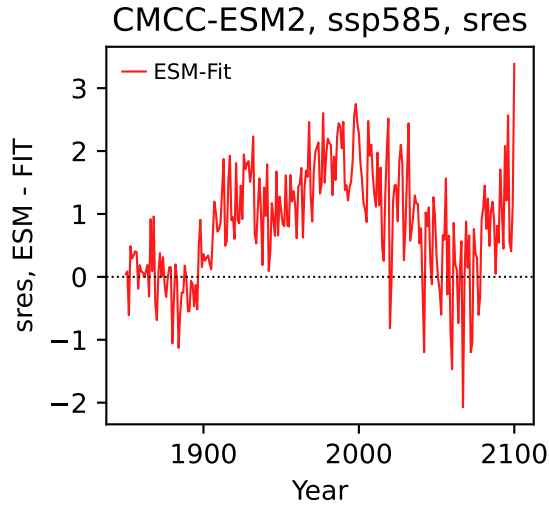

CMCC-ESM2, ssp585, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
vres_c_half
vres_c_l
CMCC-ESM2
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
8.7
7.5
6.3
5.1
3.9
2.7
1.5
0.3

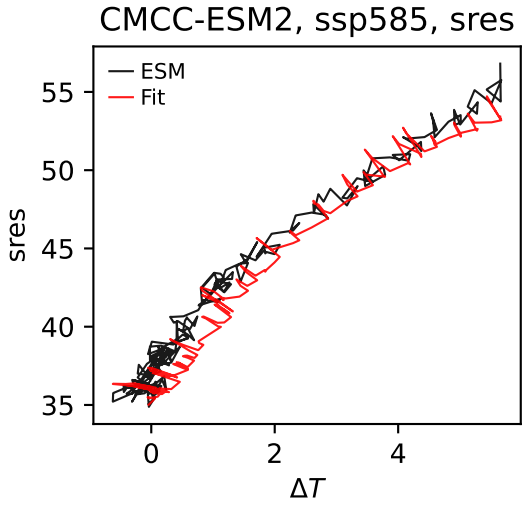

CMCC-ESM2, ssp585, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
CMCC-ESM2
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.2
9.0
7.8
6.6
5.4
4.2
3.0
1.8
0.6

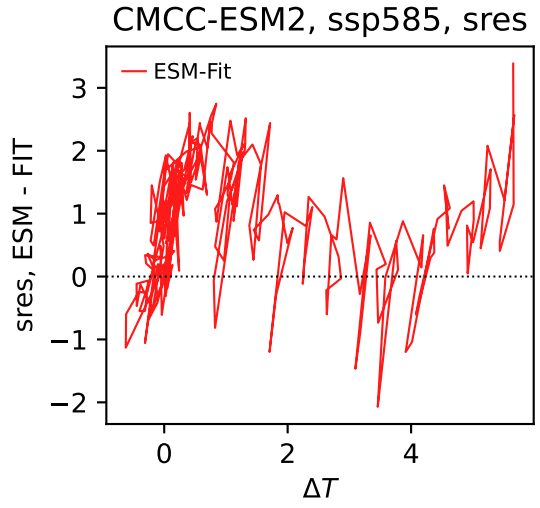

CMCC-ESM2, ssp585, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
1e−14+4.6401375e−1
CMCC-ESM2
vres_c_tan2
vres_c_tan
0.04
0.02
0.00
−0.02
−0.04
95.407
94.208
93.009
91.810
90.611
89.401
88.202
87.003

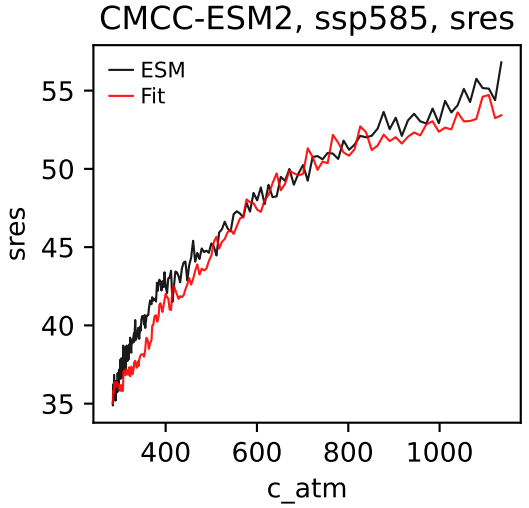

CMCC-ESM2, ssp585, vres, ln(MSE/SIGMA)
118, 0.0000, 52.1972, -1.0209, 0.1460, 0.0000, 0.9215, 0.8490, 0.
1e-14+4.640137508e-1
CMCC-ESM2
vres_slow
vres_fast
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.90
0.92
0.94
0.96
0.98
1.00
95.407
94.208
93.009
91.810
90.611
89.401
88.202
87.003

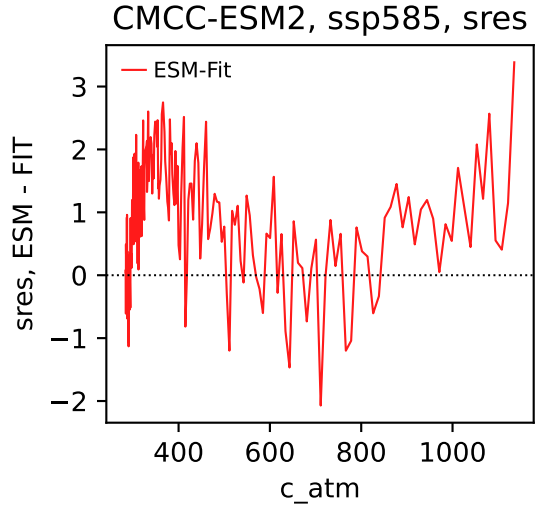

CMCC-ESM2, ssp585, sres
ESM
Fit
sres
Year

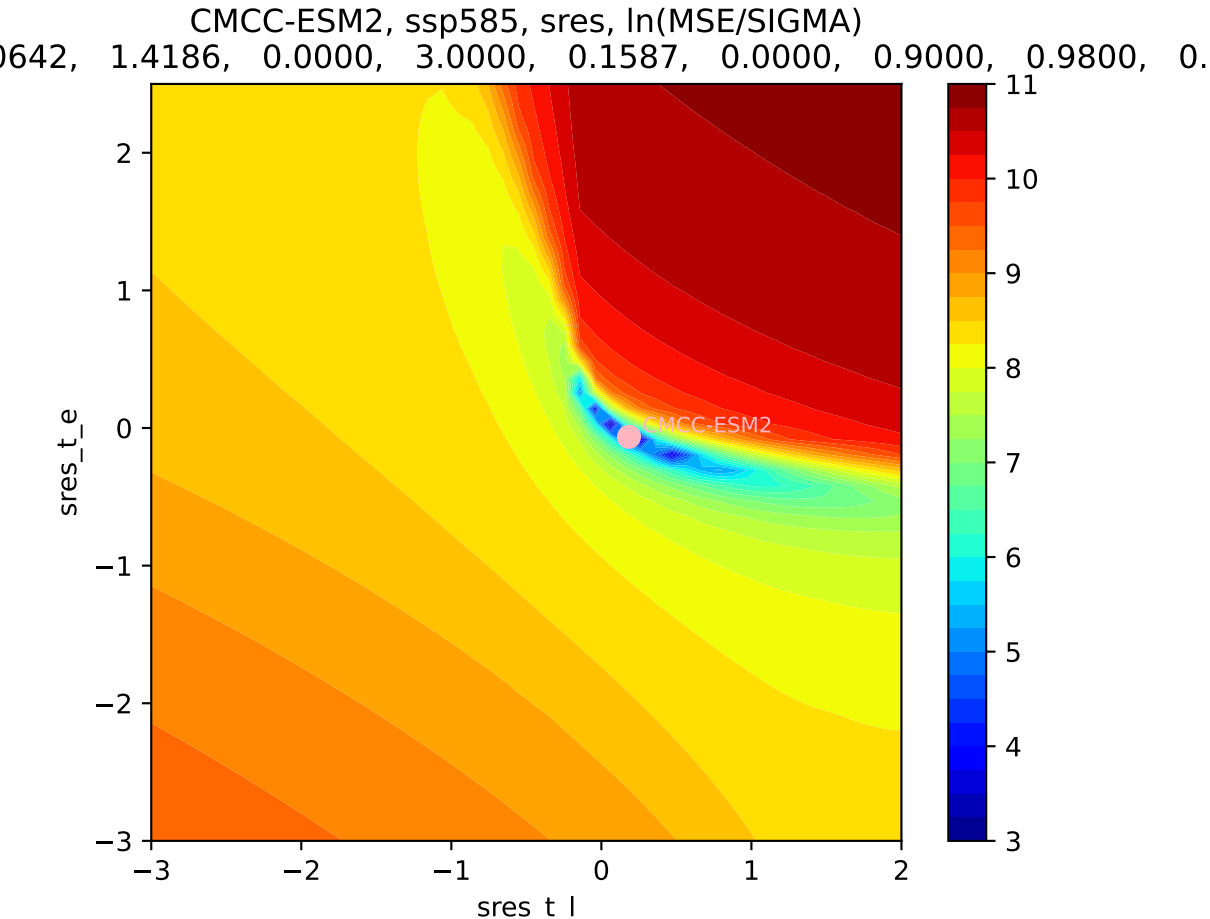

CMCC-ESM2, ssp585, sres
ESM-Fit
sres, ESM - FIT
Year

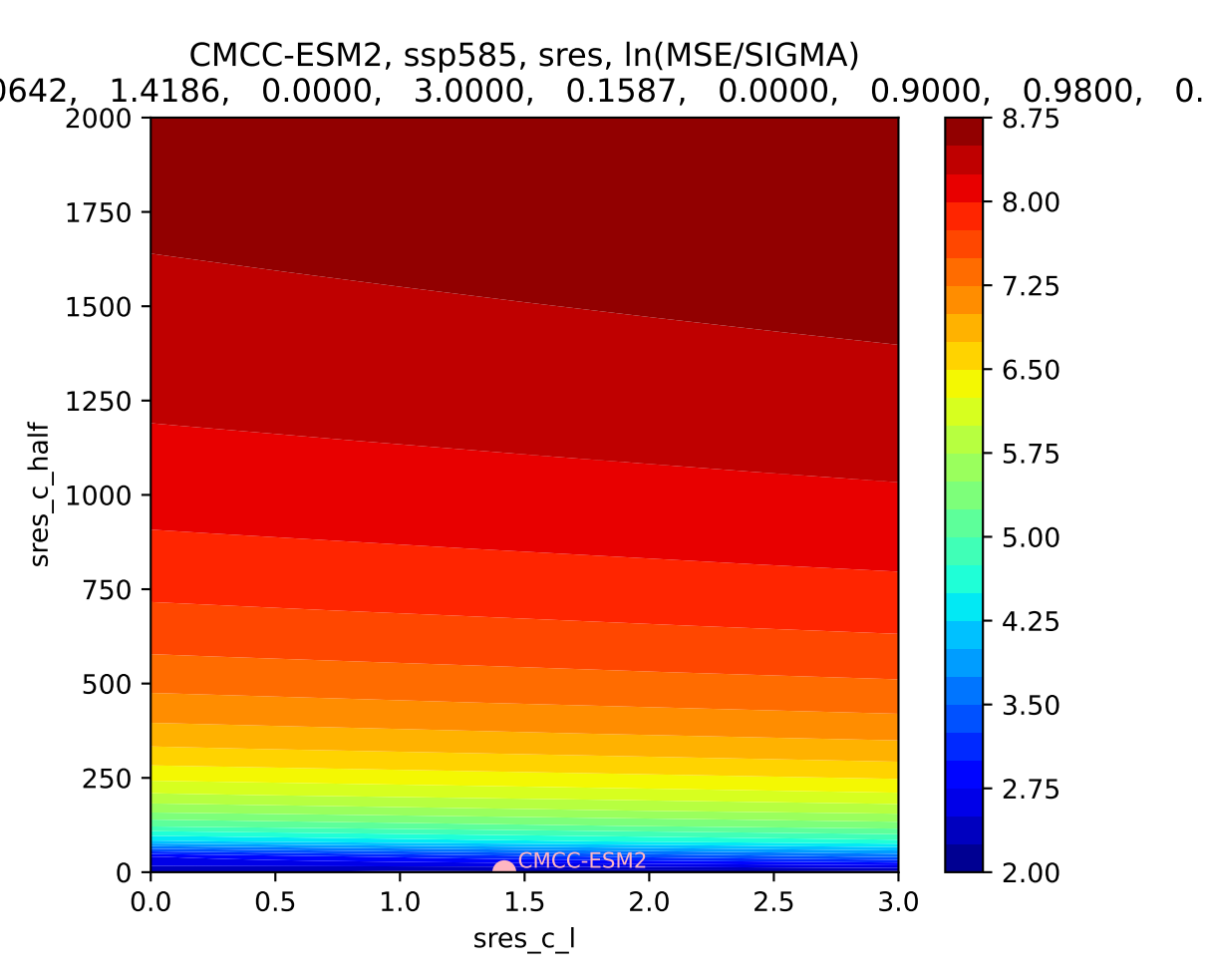

CMCC-ESM2, ssp585, sres
ESM
Fit
sres
ΔT

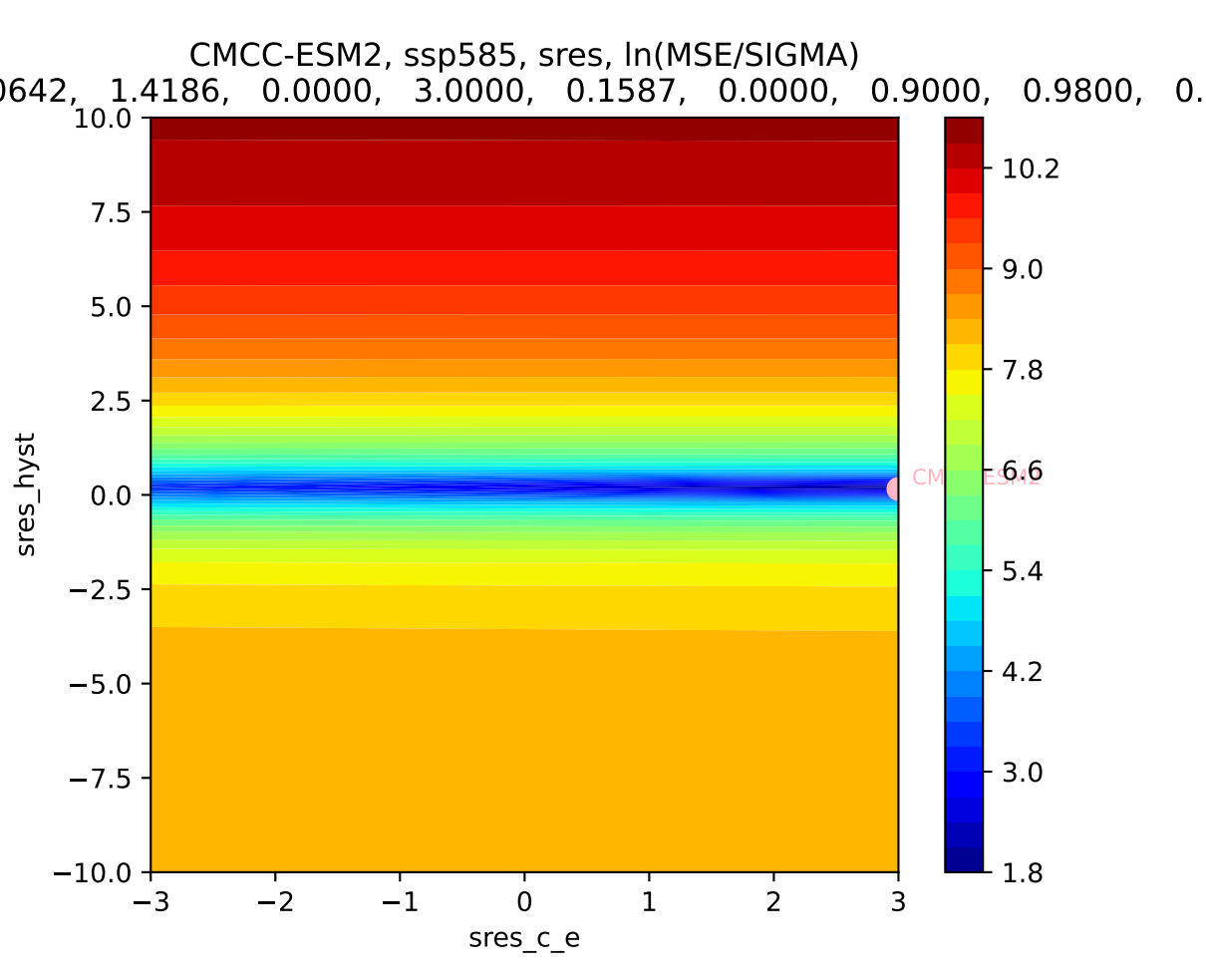

CMCC-ESM2, ssp585, sres
ESM-Fit
sres, ESM - FIT
ΔT

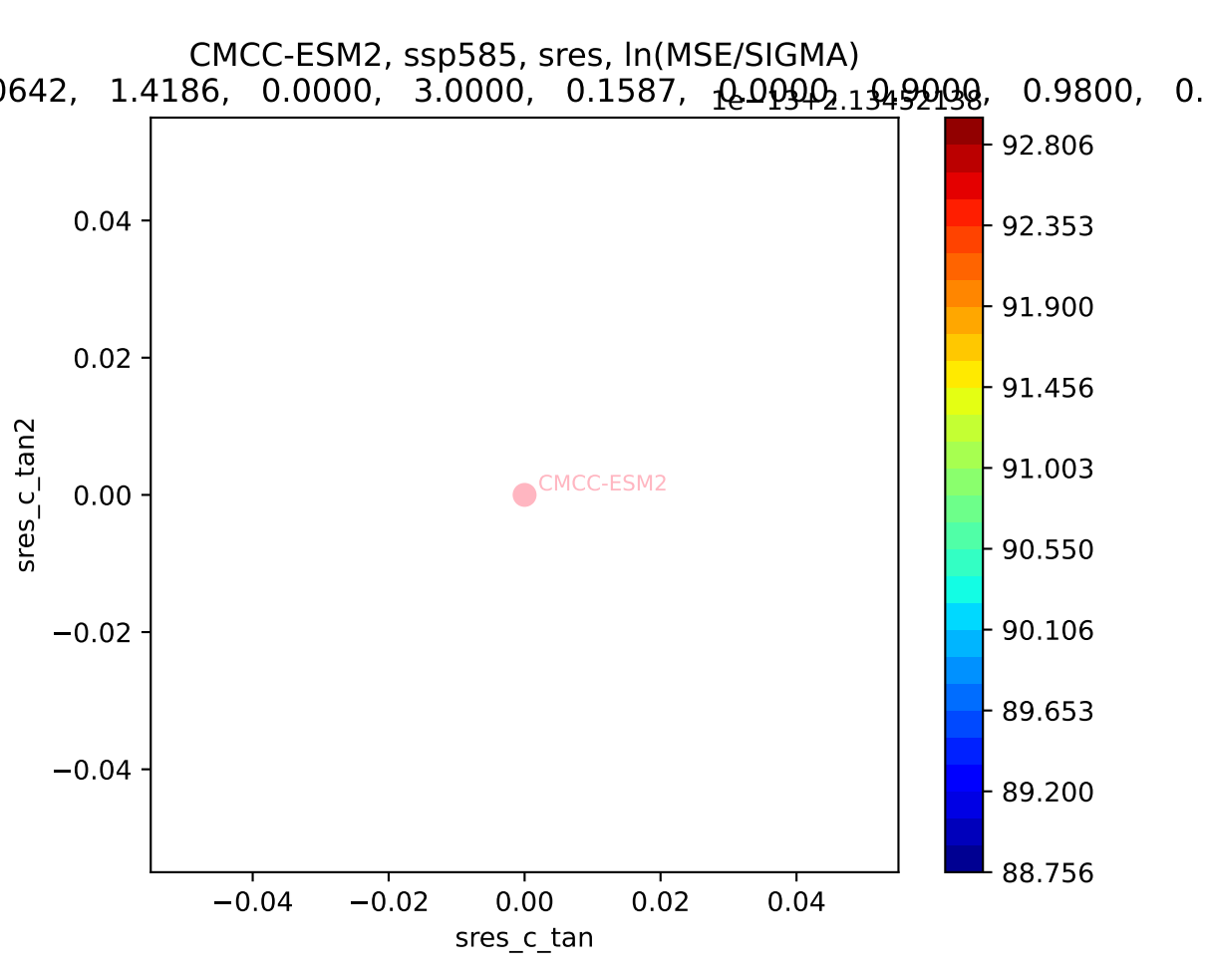

CMCC-ESM2, ssp585, sres
ESM
Fit
sres
c_atm

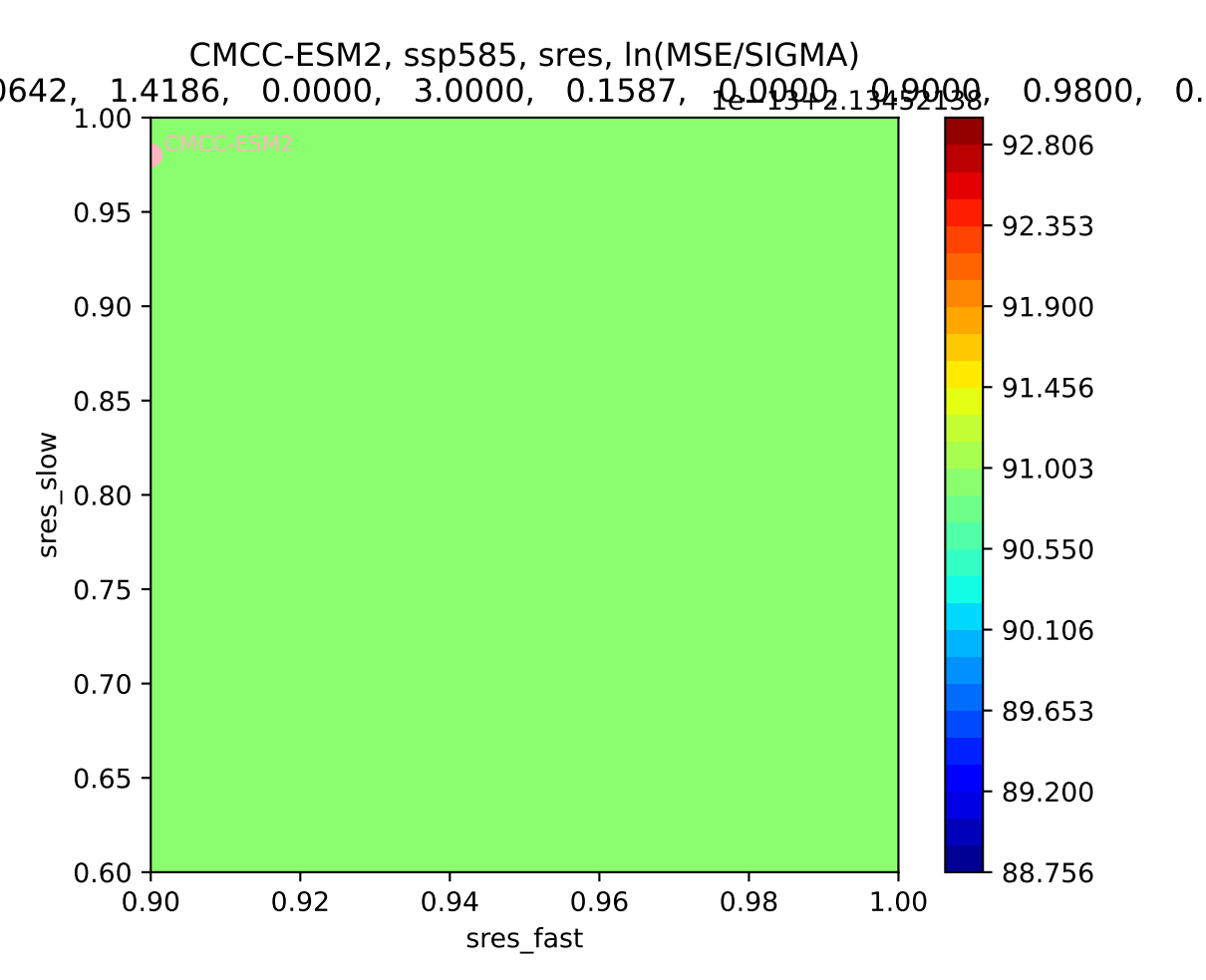

CMCC-ESM2, ssp585, sres
ESM-Fit
sres, ESM - FIT
c_atm

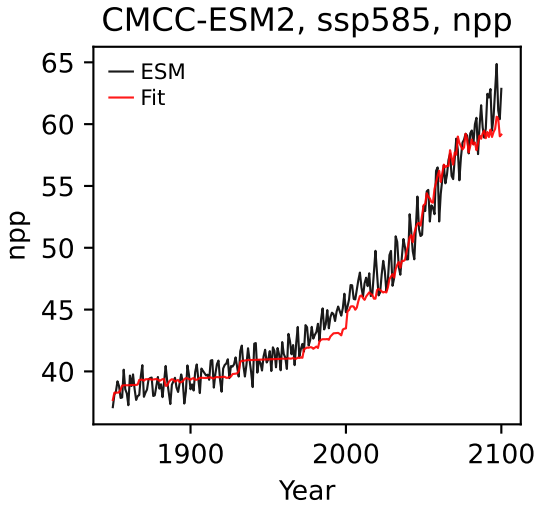

CMCC-ESM2, ssp585, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
CMCC-ESM2
sres_t_e
sres_t_l
2
1
0
−1
−2
−3
11
10
9
8
7
6
5
4
3

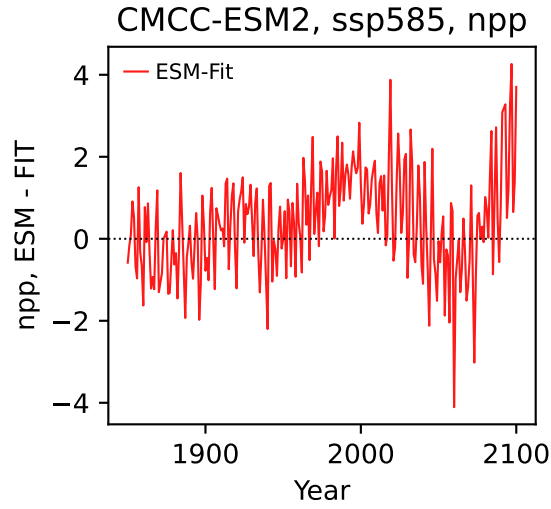

CMCC-ESM2, ssp585, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
sres_c_half
sres_c_l
CMCC-ESM2
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
8.75
8.00
7.25
6.50
5.75
5.00
4.25
3.50
2.75
2.00

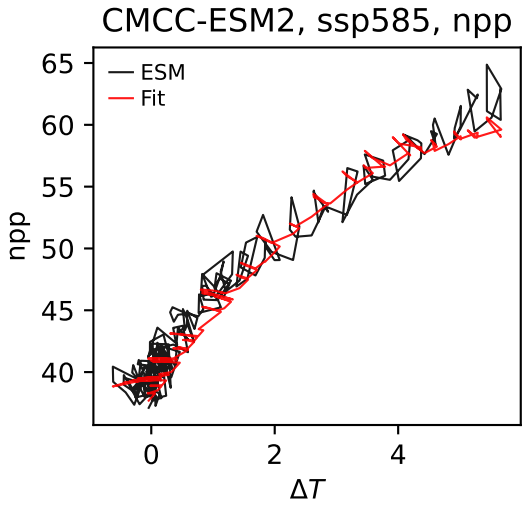

CMCC-ESM2, ssp585, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.2
9.0
7.8
6.6
5.4
4.2
3.0
1.8

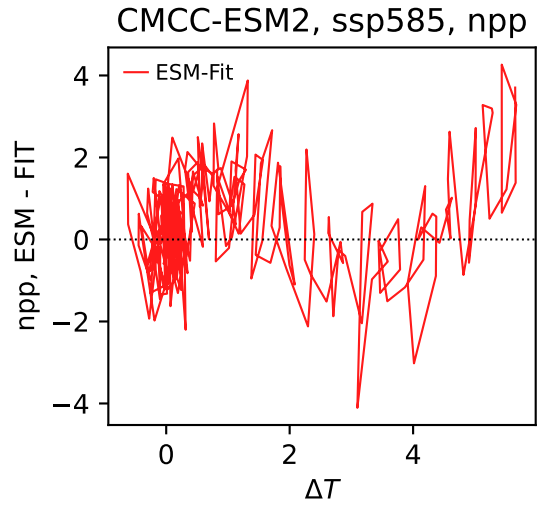

CMCC-ESM2, ssp585, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
1e-134 2.13452138
CMCC-ESM2
sres_c_tan2
sres_c_tan
0.04
0.02
0.00
−0.02
−0.04
92.806
92.353
91.900
91.456
91.003
90.550
90.106
89.653
89.200
88.756

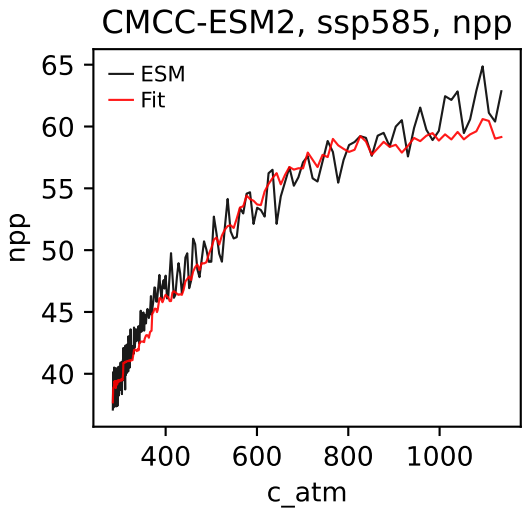

CMCC-ESM2, ssp585, sres, ln(MSE/SIGMA)
0642, 1.4186, 0.0000, 3.0000, 0.1587, 0.0000, 0.9000, 0.9800, 0.
1e-134 2.13452138
CMCC-ESM2
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
sres_slow
0.90
0.92
0.94
0.96
0.98
1.00
sres_fast
92.806
92.353
91.900
91.456
91.003
90.550
90.106
89.653
89.200
88.756

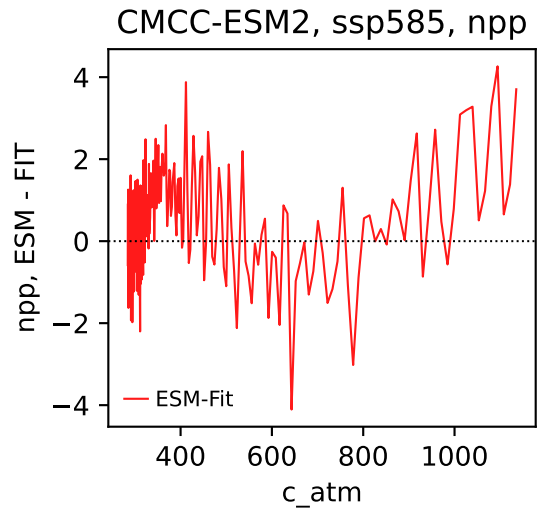

CMCC-ESM2, ssp585, npp
ESM
Fit
npp
Year

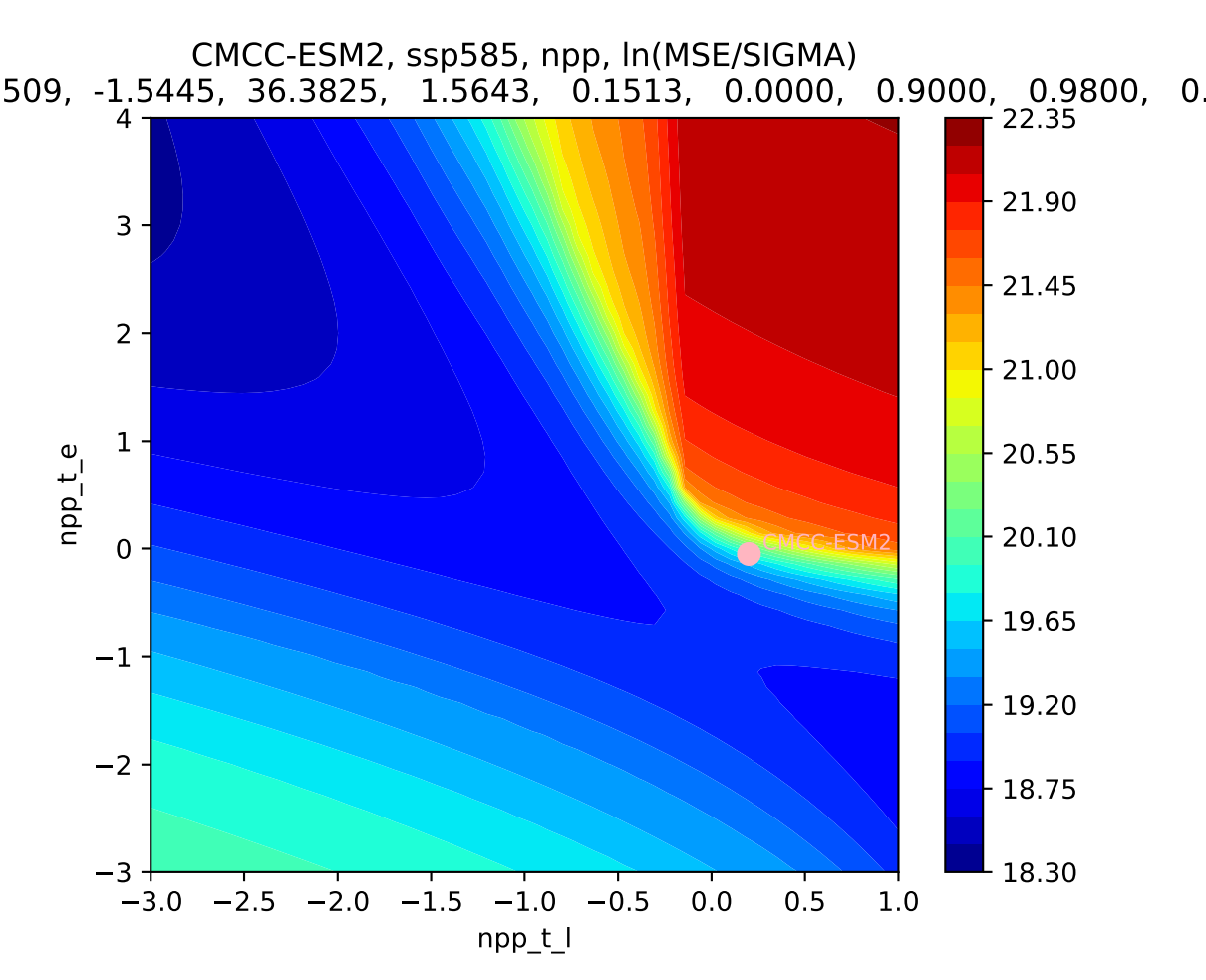

CMCC-ESM2, ssp585, npp
ESM-Fit
npp, ESM - FIT
Year

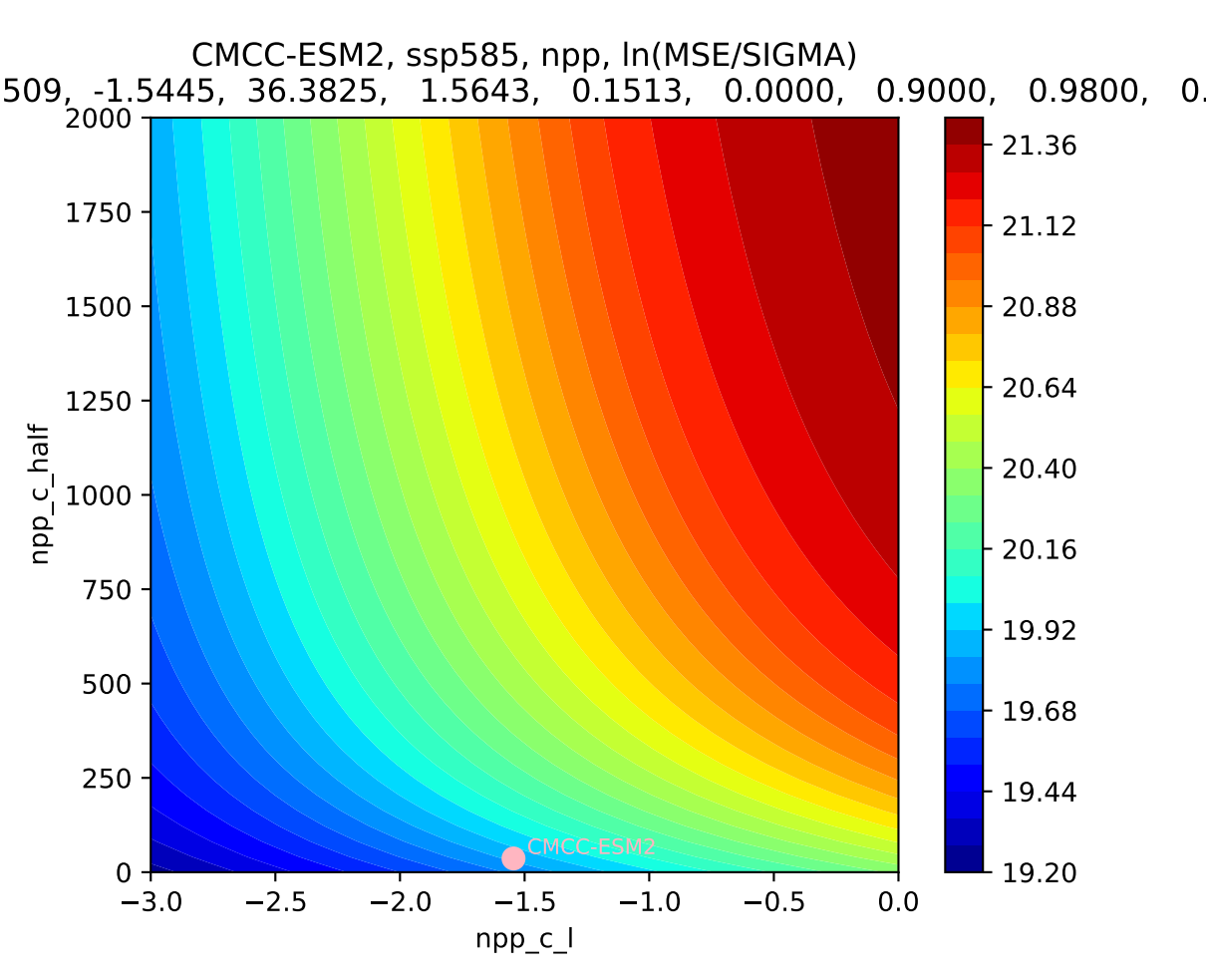

CMCC-ESM2, ssp585, npp
ESM
Fit
npp
ΔT

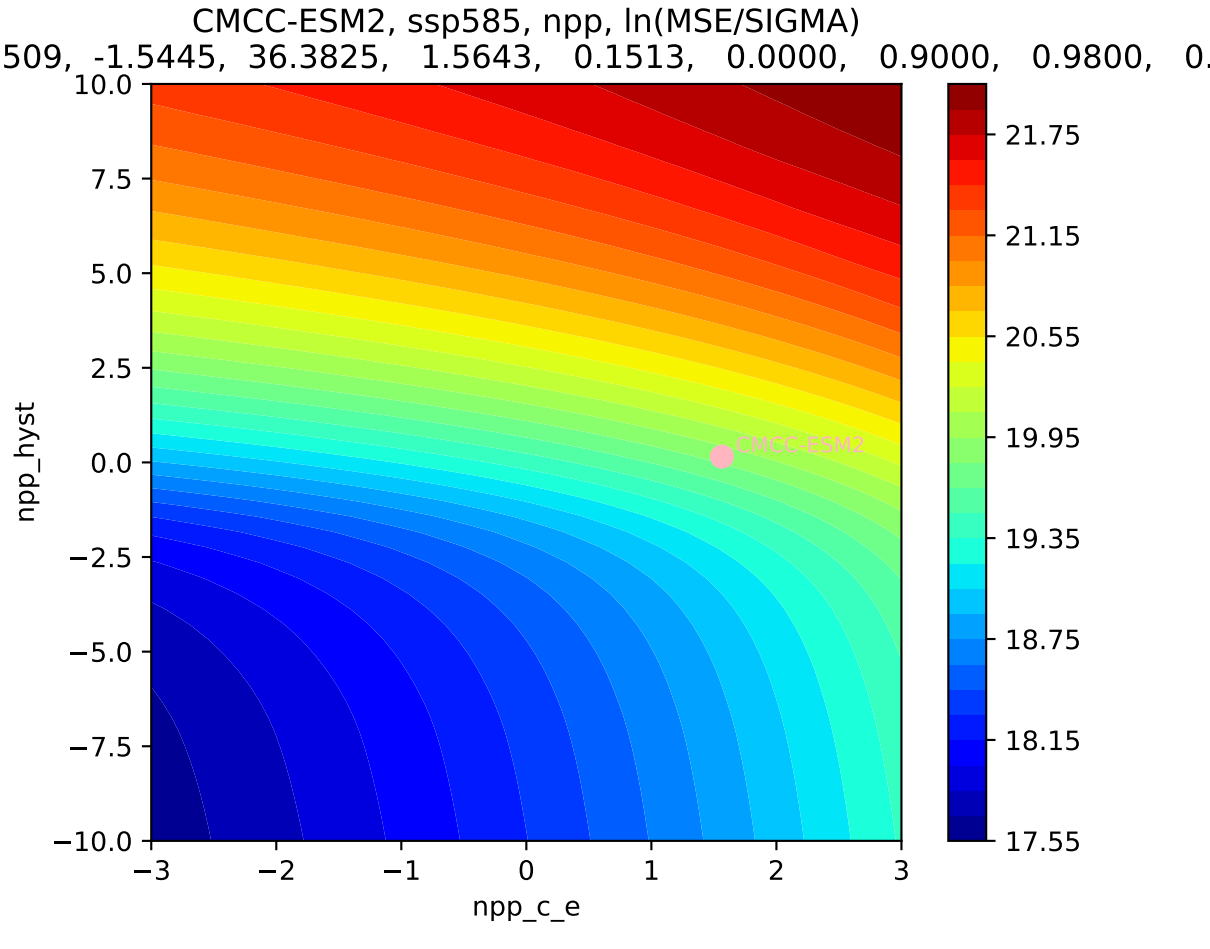

CMCC-ESM2, ssp585, npp
ESM-Fit
npp, ESM - FIT
ΔT

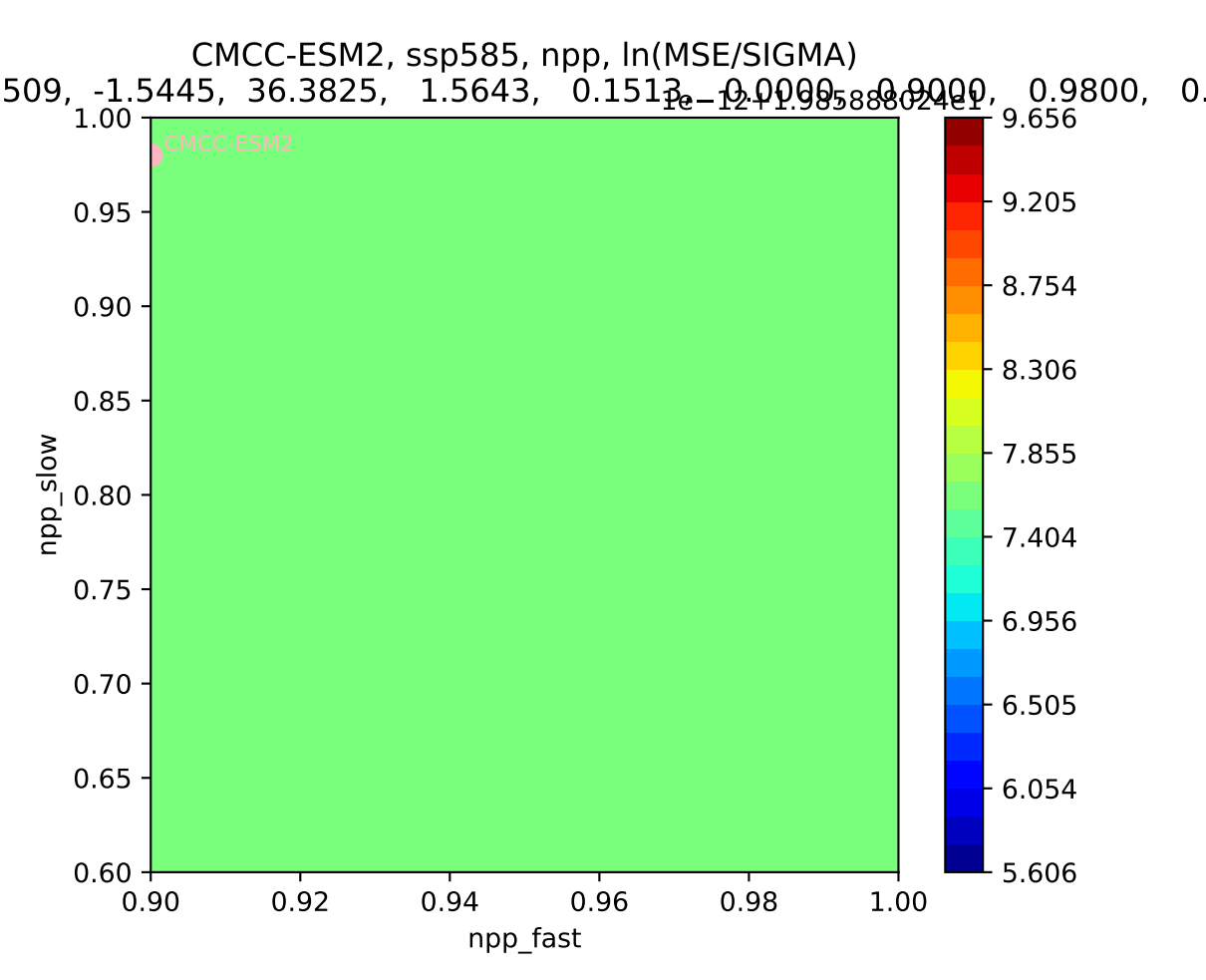

CMCC-ESM2, ssp585, npp
ESM
Fit
npp
c_atm

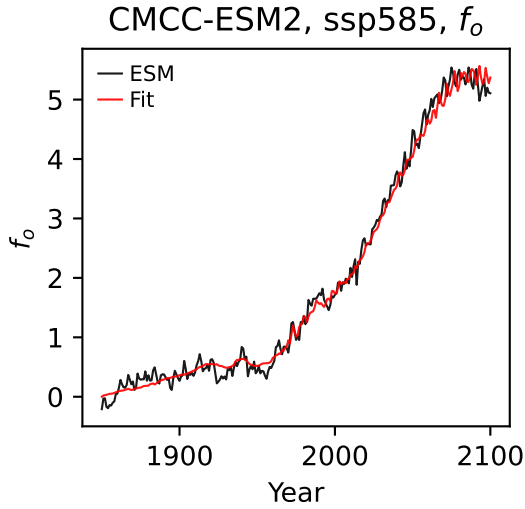

CMCC-ESM2, ssp585, npp
ESM-Fit
npp, ESM - FIT
c_atm

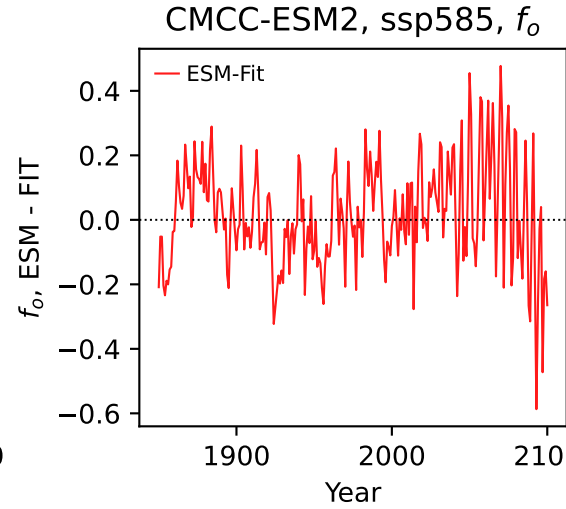

CMCC-ESM2, ssp585, npp, ln(MSE/SIGMA)
509, -1.5445, 36.3825, 1.5643, 0.1513, 0.0000, 0.9000, 0.9800, 0.
CMCC-ESM2
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
22.35
21.90
21.45
21.00
20.55
20.10
19.65
19.20
18.75
18.30

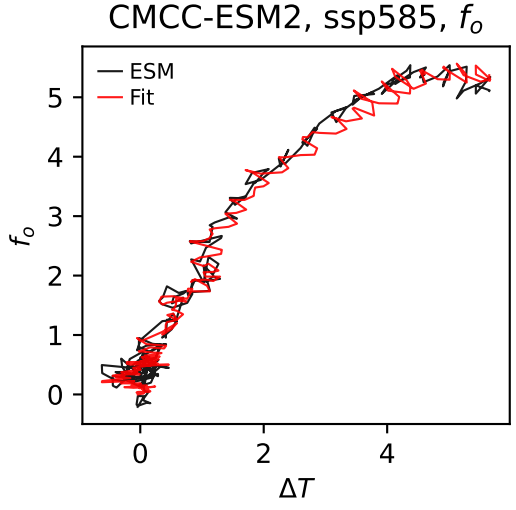

CMCC-ESM2, ssp585, npp, ln(MSE/SIGMA)
509, -1.5445, 36.3825, 1.5643, 0.1513, 0.0000, 0.9000, 0.9800, 0.
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
npp_c_l
CMCC-ESM2
21.36
21.12
20.88
20.64
20.40
20.16
19.92
19.68
19.44
19.20

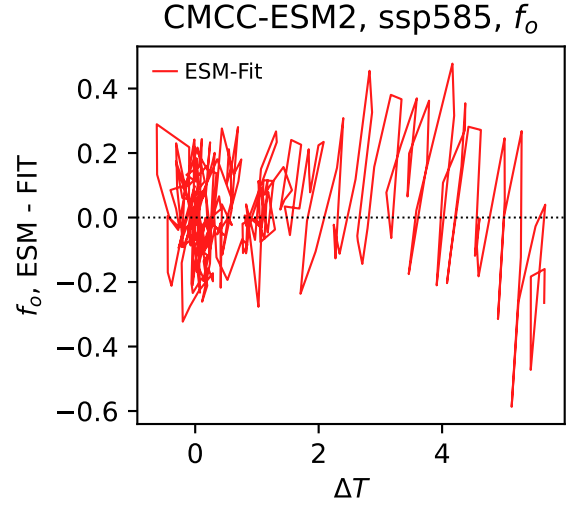

CMCC-ESM2, ssp585, npp, ln(MSE/SIGMA)
509, -1.5445, 36.3825, 1.5643, 0.1513, 0.0000, 0.9000, 0.9800, 0.
CMCC-ESM2
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
21.75
21.15
20.55
19.95
19.35
18.75
18.15
17.55

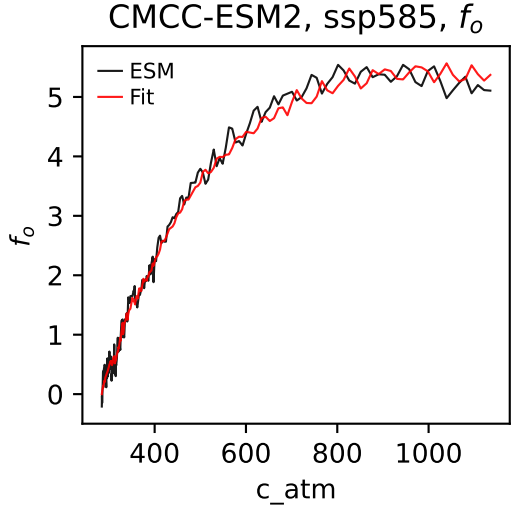

CMCC-ESM2, ssp585, npp, ln(MSE/SIGMA)
509, -1.5445, 36.3825, 1.5643, 0.1513, 0.0000, 0.9000, 0.9800, 0.
1e−12+1.9858880240e1
CMCC-ESM2
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
npp_slow
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast
9.656
9.205
8.754
8.306
7.855
7.404
6.956
6.505
6.054
5.606

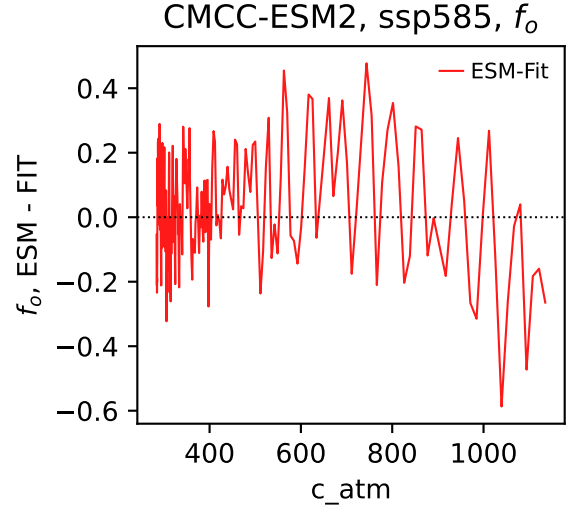

CMCC-ESM2, ssp585, $f_o$
ESM
Fit
$f_o$
Year

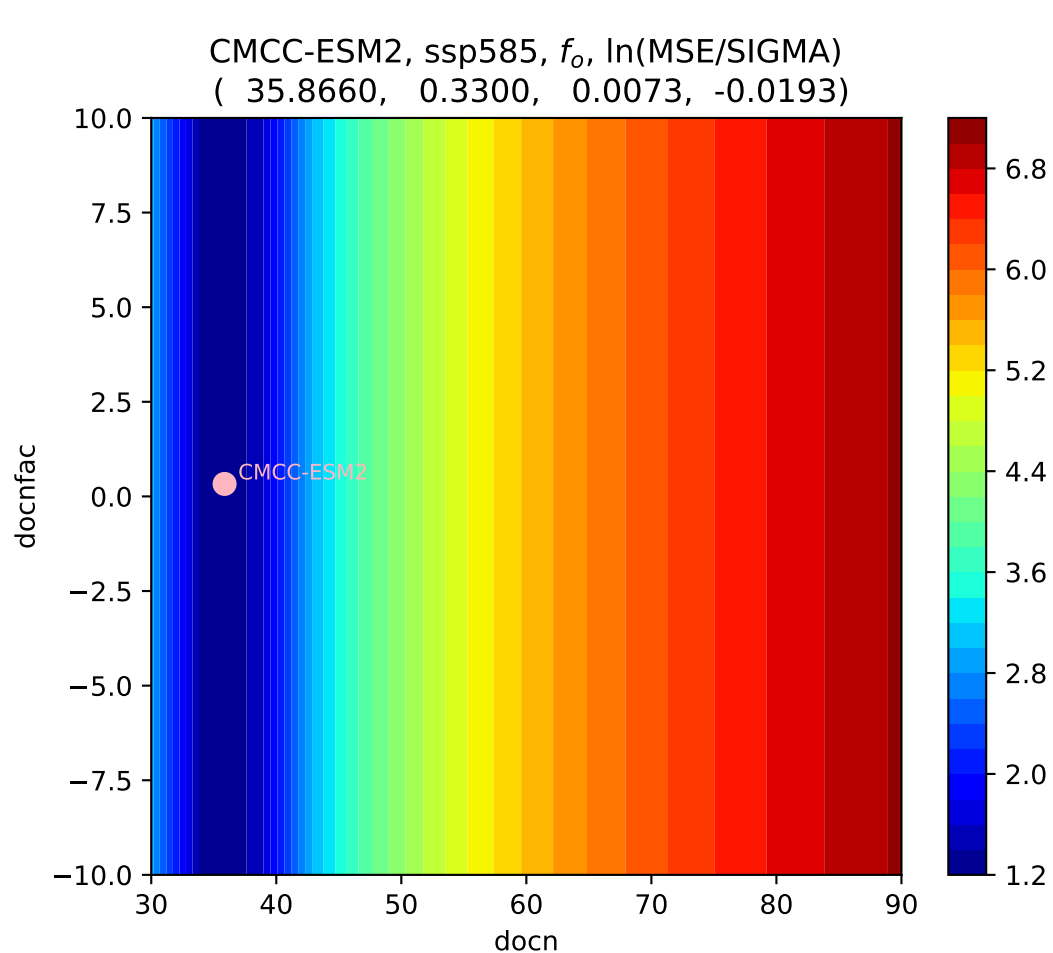

CMCC-ESM2, ssp585, $f_o$
ESM-Fit
$f_o$, ESM - FIT
Year

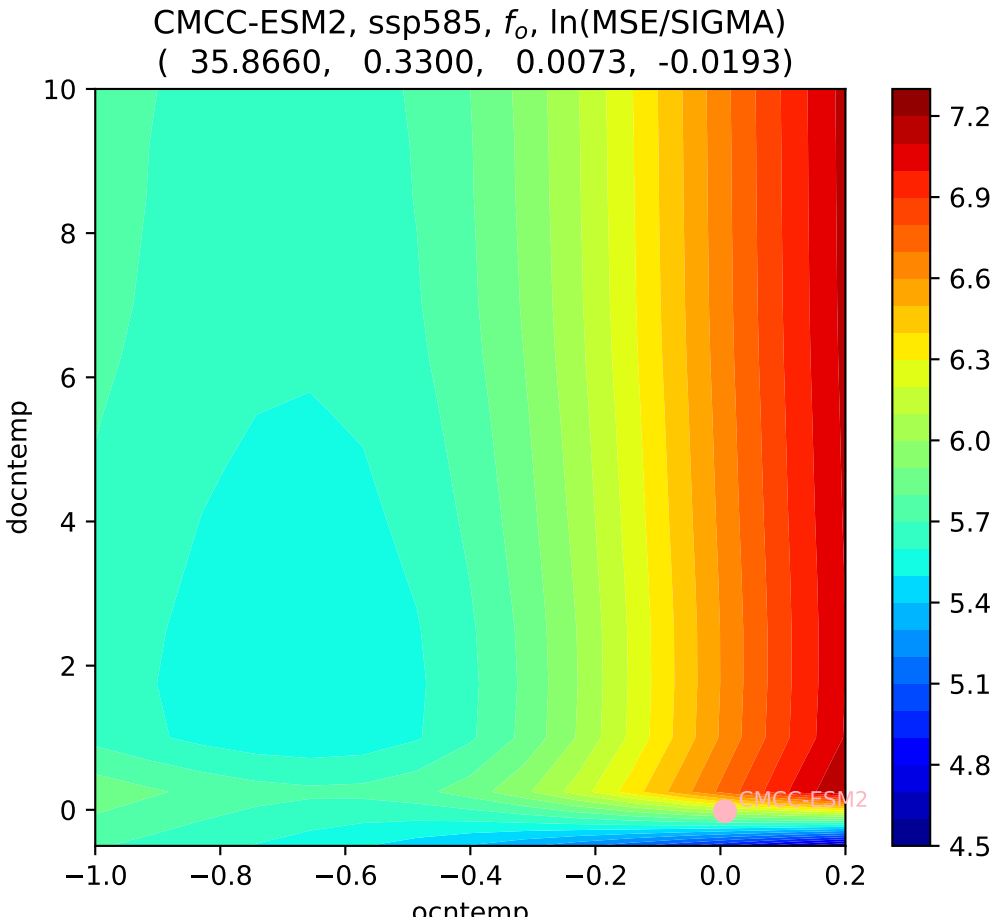

CMCC-ESM2, ssp585, $f_o$
ESM
Fit
$f_o$
$\Delta T$


CMCC-ESM2, ssp585, $f_o$
ESM-Fit
$f_o$, ESM - FIT
$\Delta T$


CMCC-ESM2, ssp585, $f_o$
ESM
Fit
$f_o$
c_atm


CMCC-ESM2, ssp585, $f_o$
ESM-Fit
$f_o$, ESM - FIT
c_atm


CMCC-ESM2, ssp585, $f_o$, 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
6.8
6.0
5.2
4.4
3.6
2.8
2.0
1.2


CMCC-ESM2, ssp585, $f_o$, ln(MSE/SIGMA)
( 35.8660, 0.3300, 0.0073, -0.0193)
docntemp
ocntemp
CMCC-ESM2
10
8
6
4
2
0
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
7.2
6.9
6.6
6.3
6.0
5.7
5.4
5.1
4.8
4.5