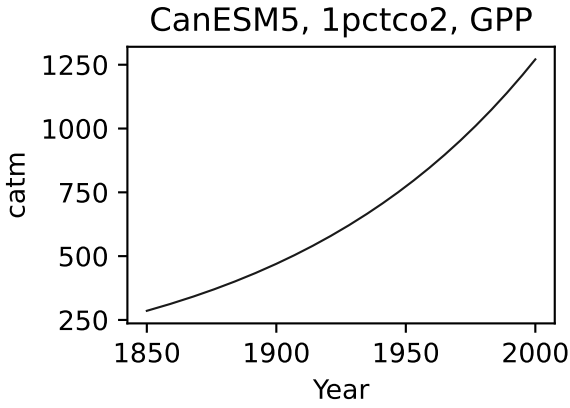
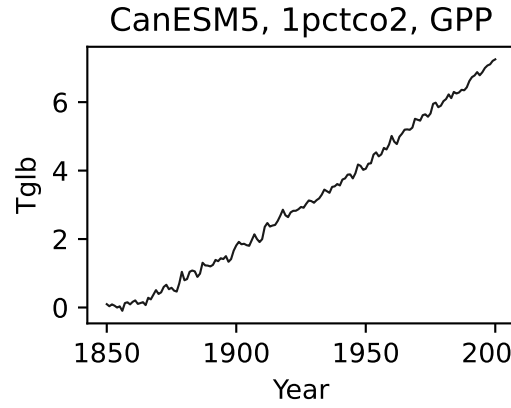
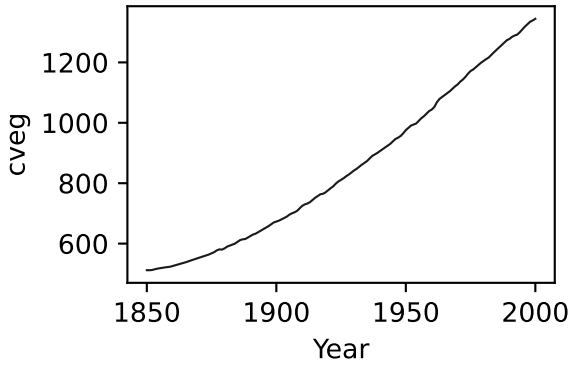
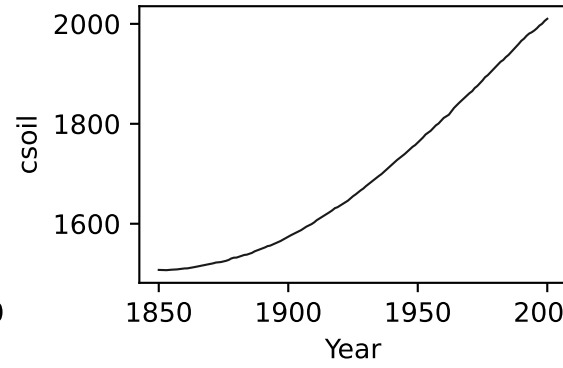
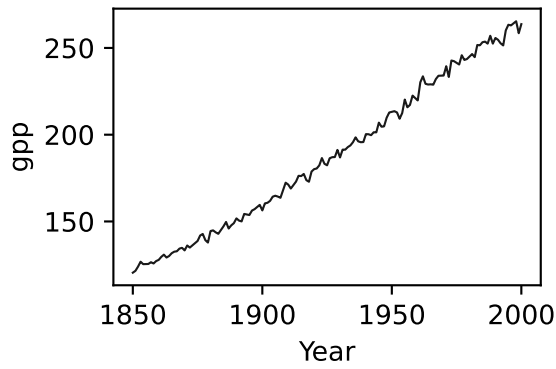
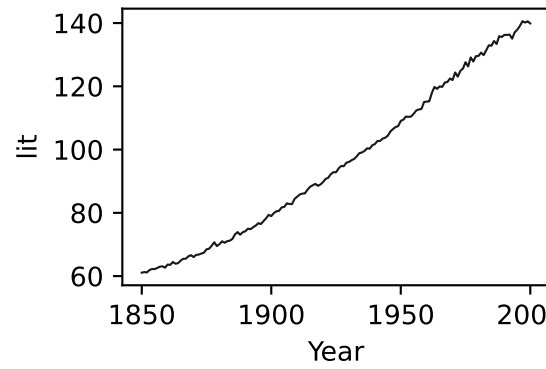

CanESM5, 1pctco2, GPP
catm
1250
1000
750
500
250
1850
1900
1950
2000
Year

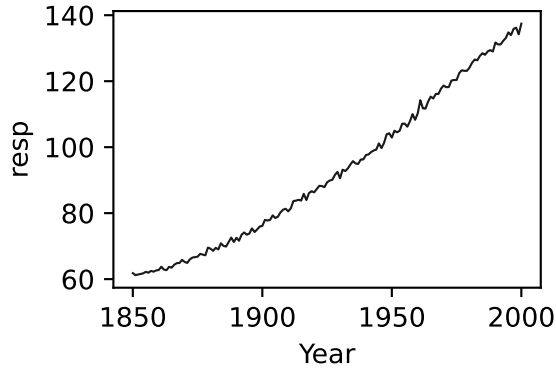

CanESM5, 1pctco2, GPP
Tglb
6
4
2
0
1850
1900
1950
2000
Year

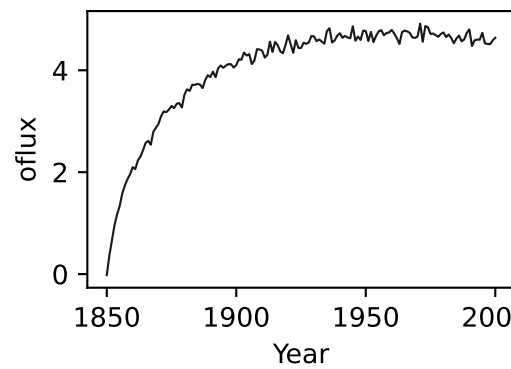

cveg
1200
1000
800
600
1850
1900
1950
2000
Year

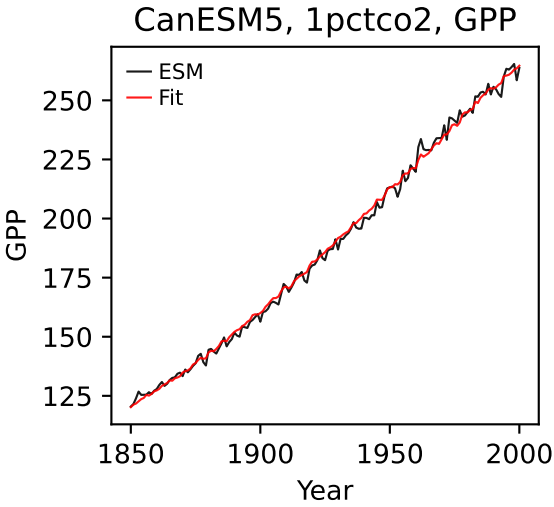

csoil
2000
1800
1600
1850
1900
1950
2000
Year

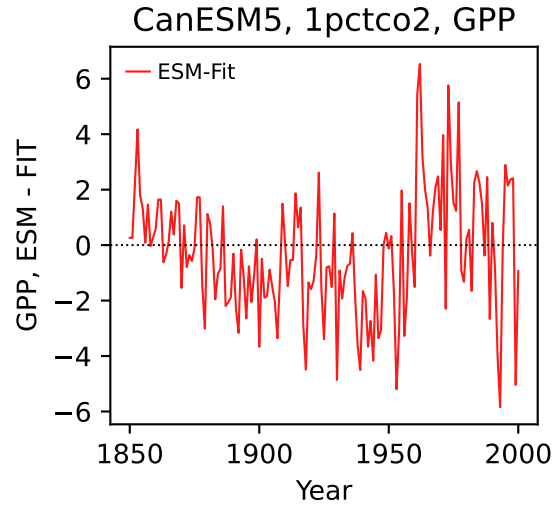

gpp
250
200
150
1850
1900
1950
2000
Year

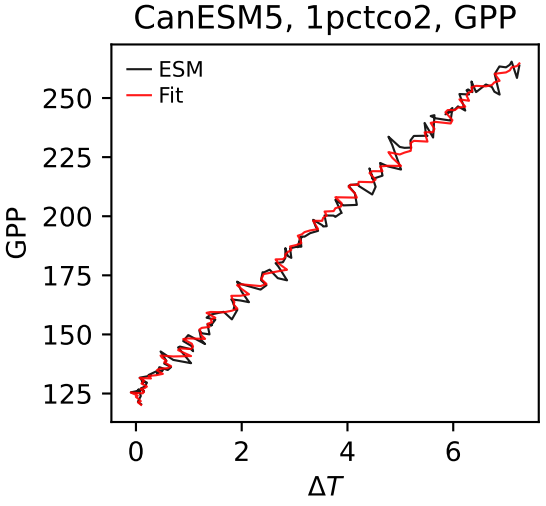

lit
140
120
100
80
60
1850
1900
1950
2000
Year

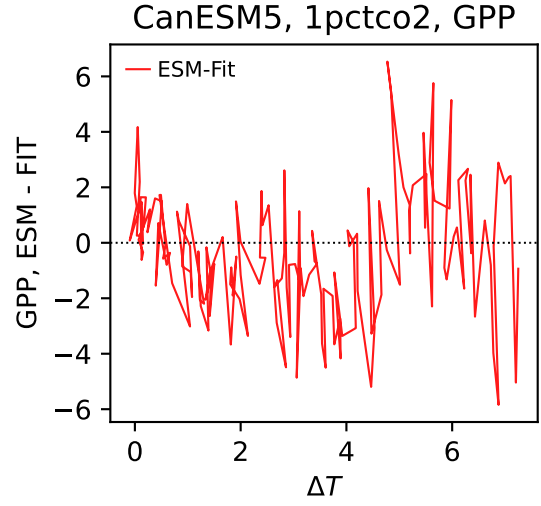

resp
140
120
100
80
60
1850
1900
1950
2000
Year

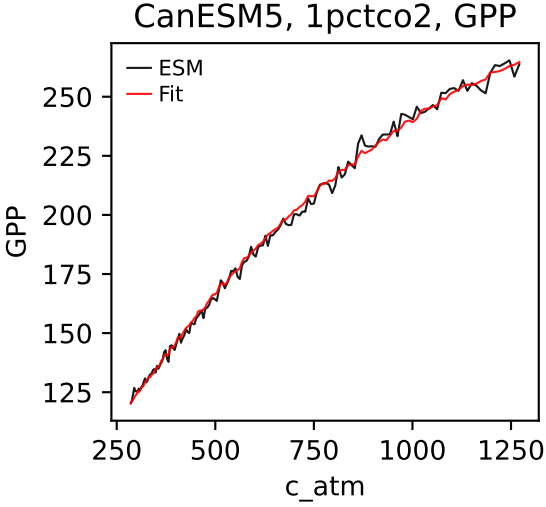

oflux
4
2
0
1850
1900
1950
2000
Year

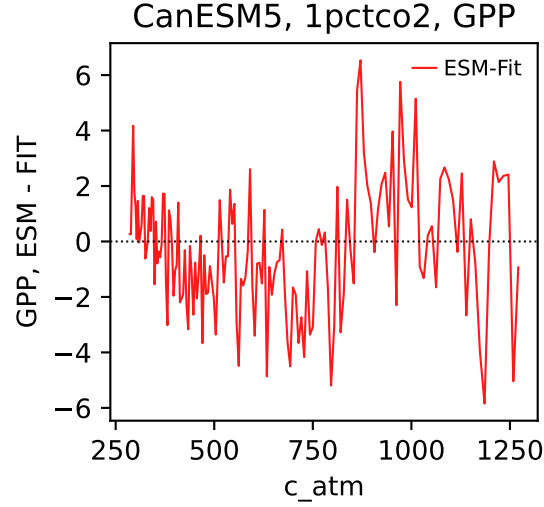

CanESM5, 1pctco2, GPP
ESM
Fit
GPP
Year

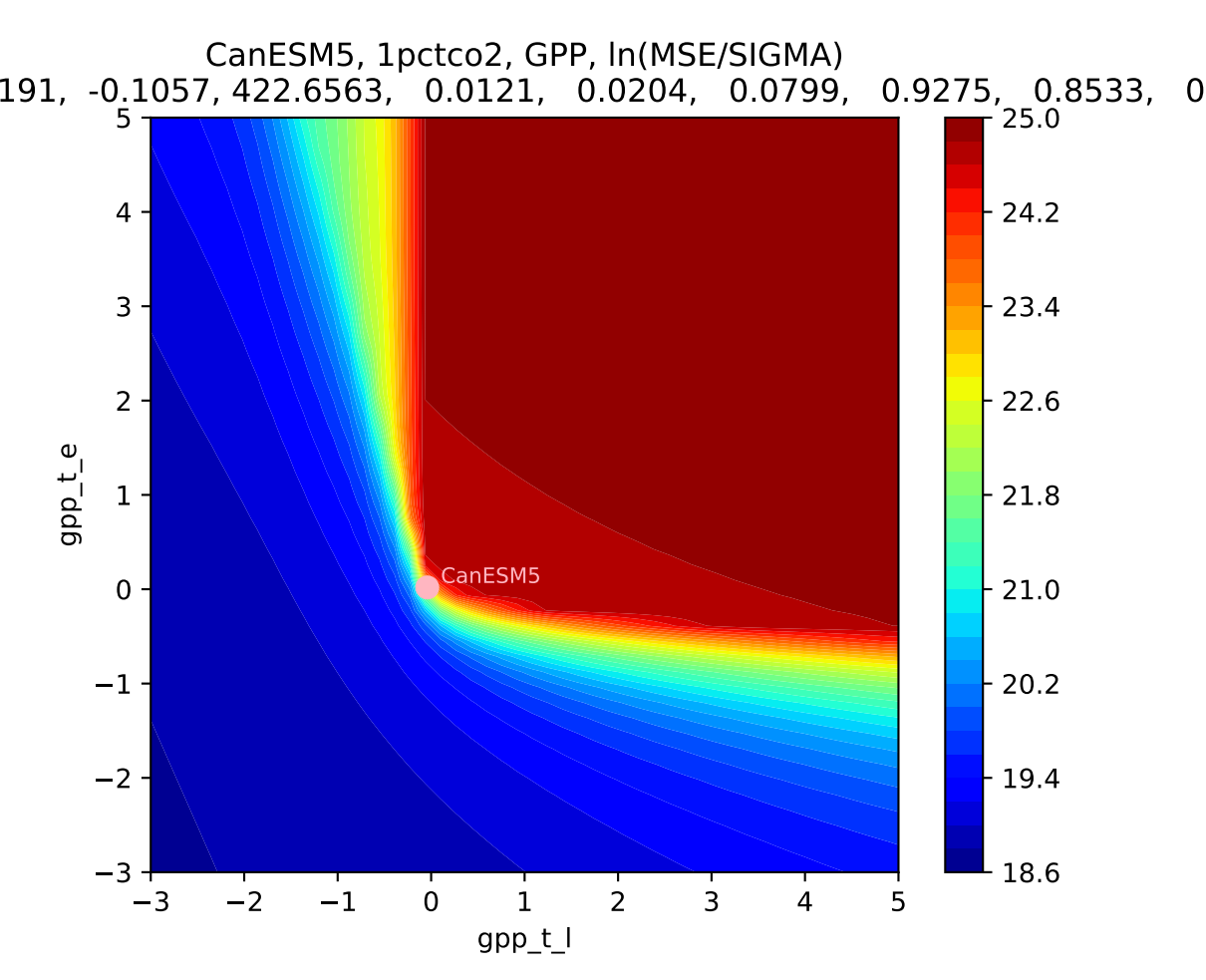

CanESM5, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
Year

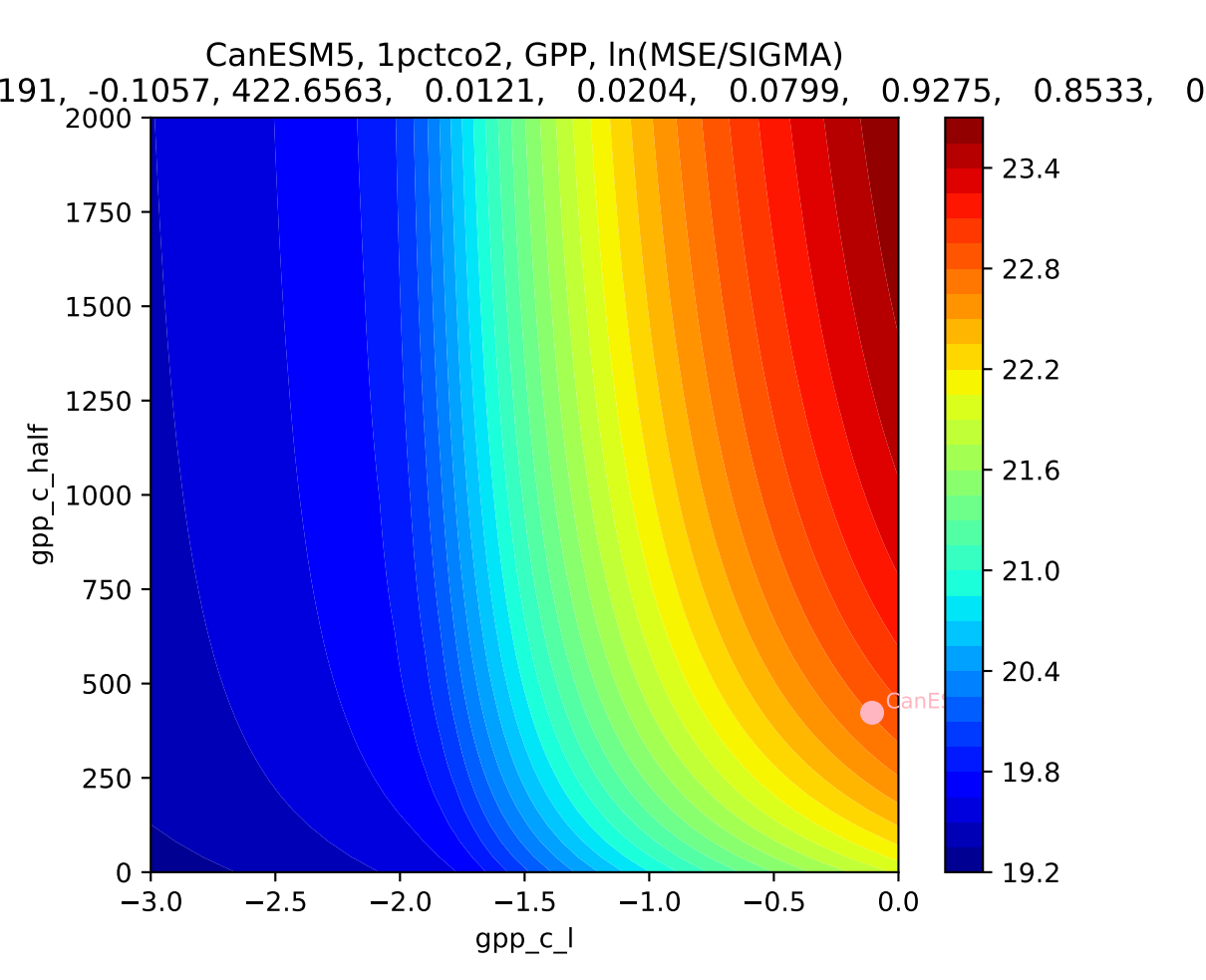

CanESM5, 1pctco2, GPP
ESM
Fit
GPP
ΔT

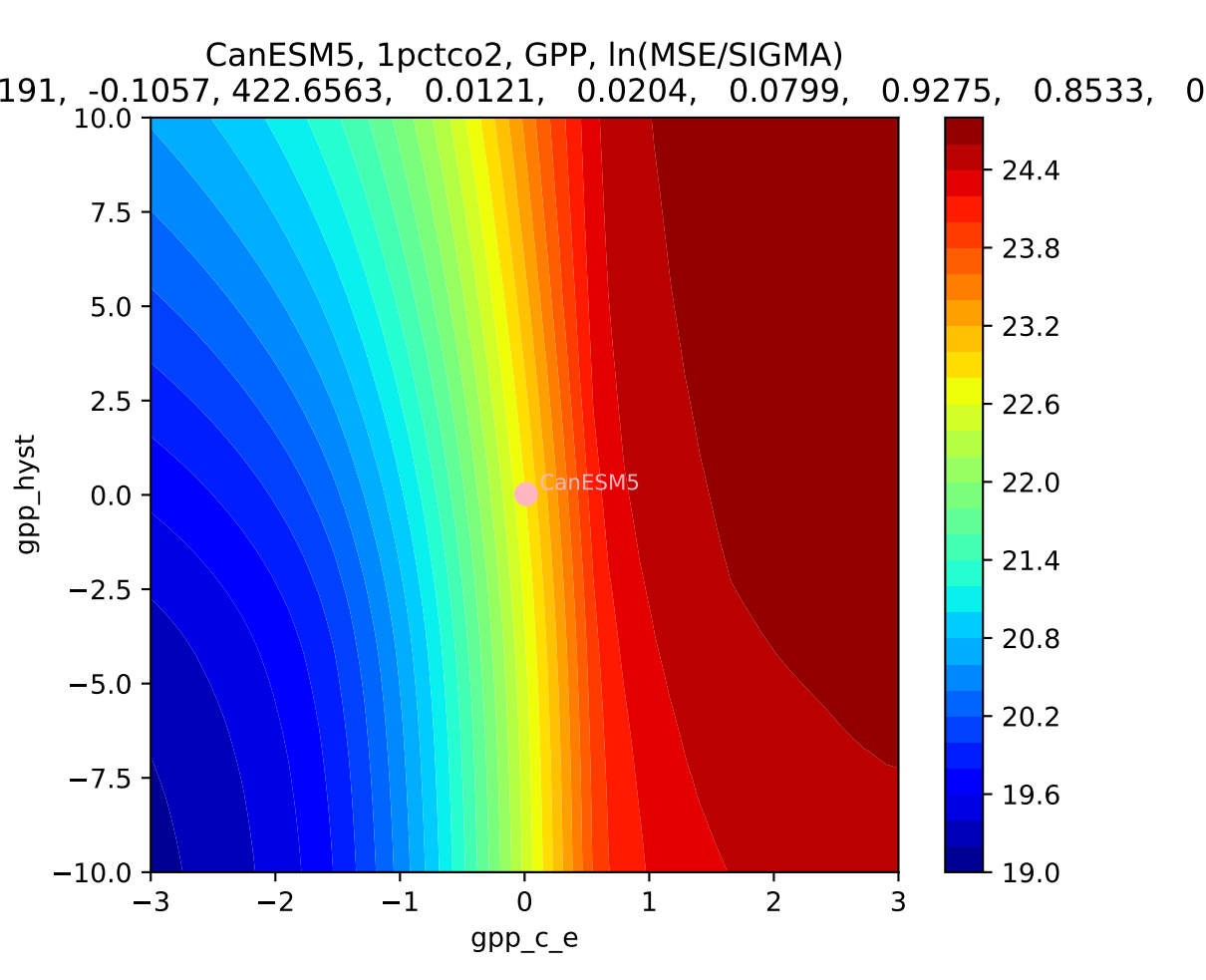

CanESM5, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
ΔT


CanESM5, 1pctco2, GPP
ESM
Fit
GPP
c_atm


CanESM5, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
c_atm


CanESM5, 1pctco2, GPP, ln(MSE/SIGMA)
191, -0.1057, 422.6563, 0.0121, 0.0204, 0.0799, 0.9275, 0.8533, 0
CanESM5
gpp_t_e
gpp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
25.0
24.2
23.4
22.6
21.8
21.0
20.2
19.4
18.6


CanESM5, 1pctco2, GPP, ln(MSE/SIGMA)
191, -0.1057, 422.6563, 0.0121, 0.0204, 0.0799, 0.9275, 0.8533, 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
23.4
22.8
22.2
21.6
21.0
20.4
19.8
19.2


CanESM5, 1pctco2, GPP, ln(MSE/SIGMA)
191, -0.1057, 422.6563, 0.0121, 0.0204, 0.0799, 0.9275, 0.8533, 0
CanESM5
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
24.4
23.8
23.2
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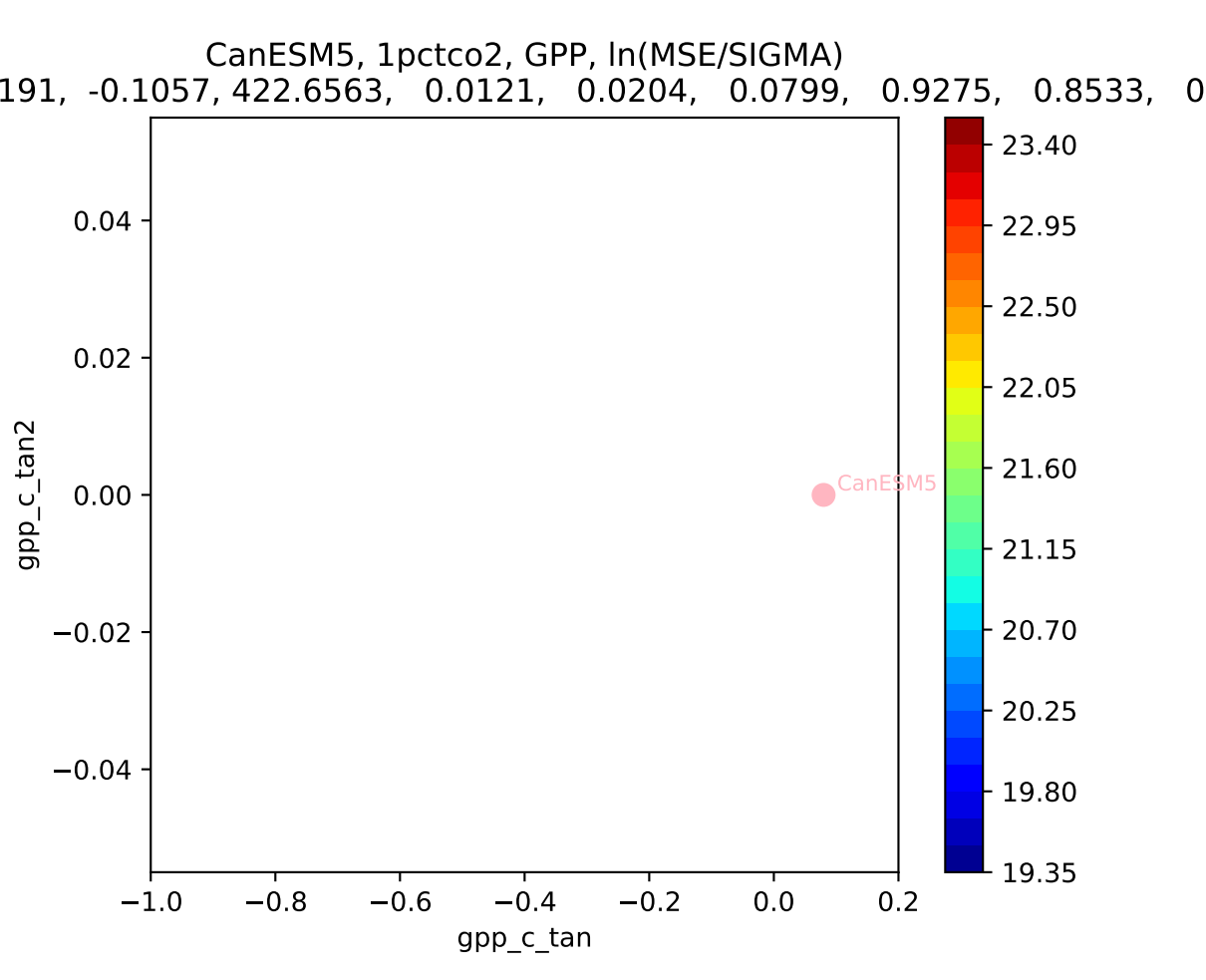
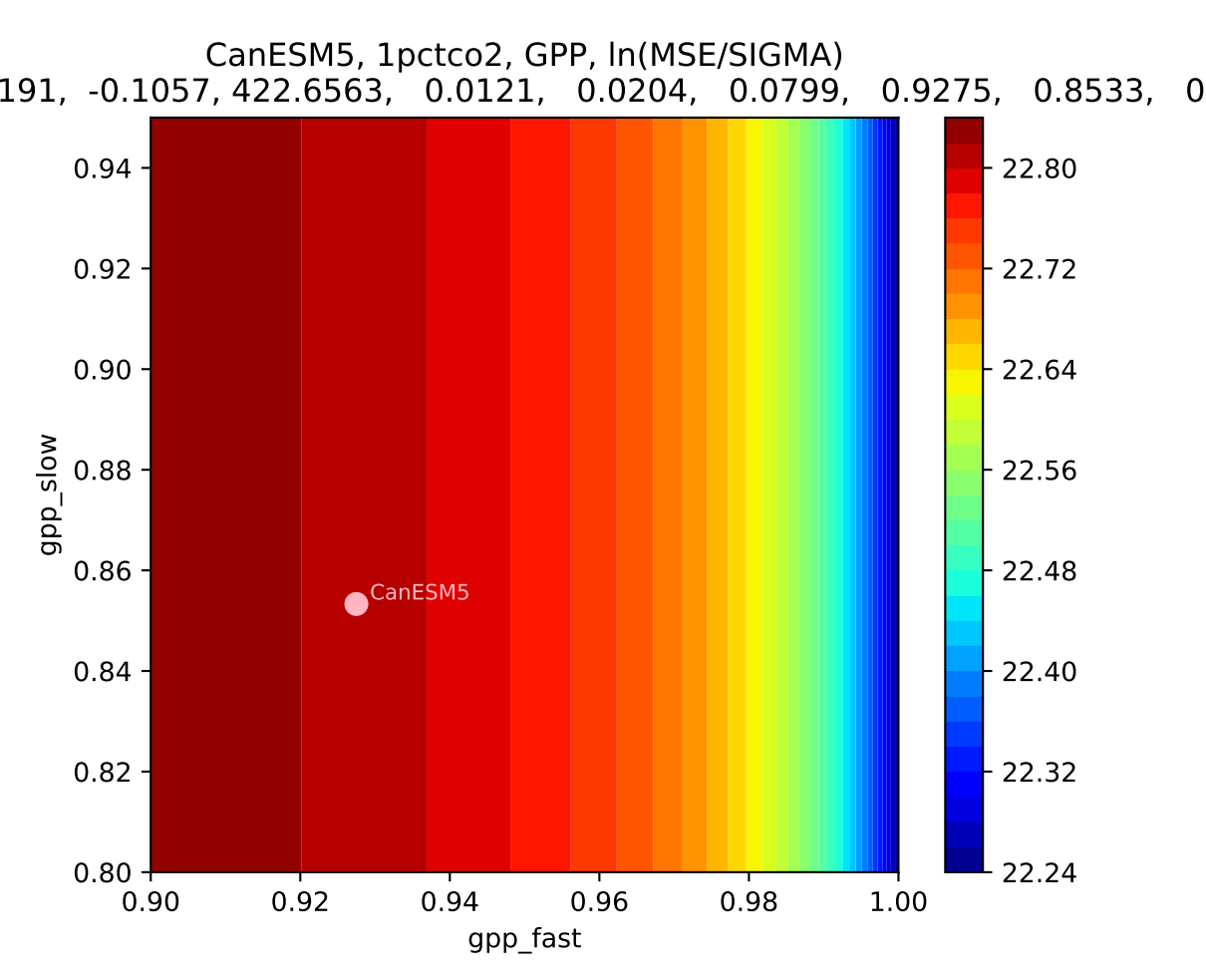
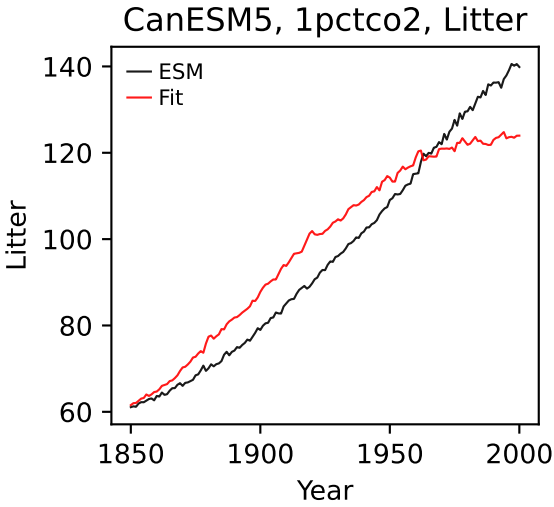
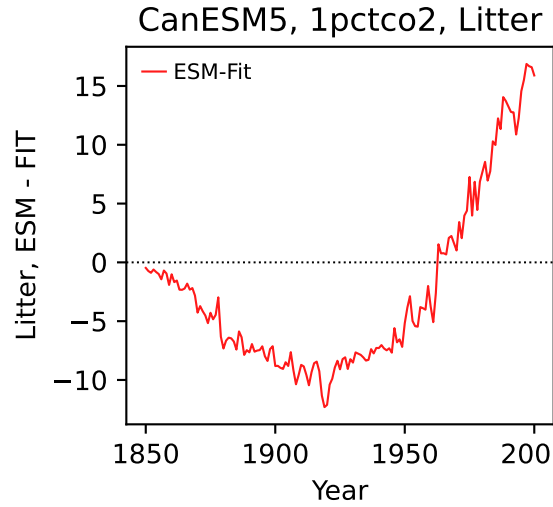
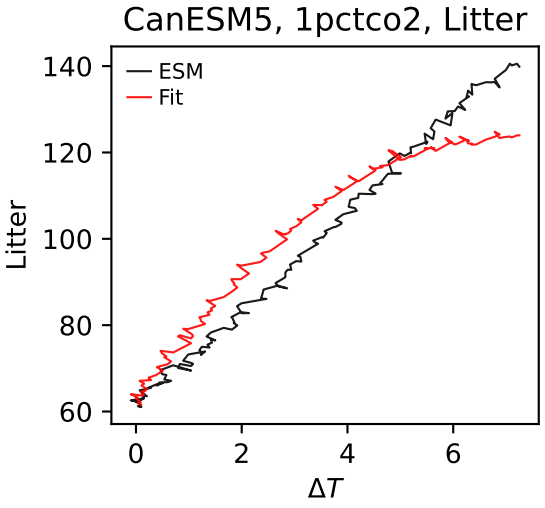
22.0
21.4
20.8
20.2
19.6
19.0

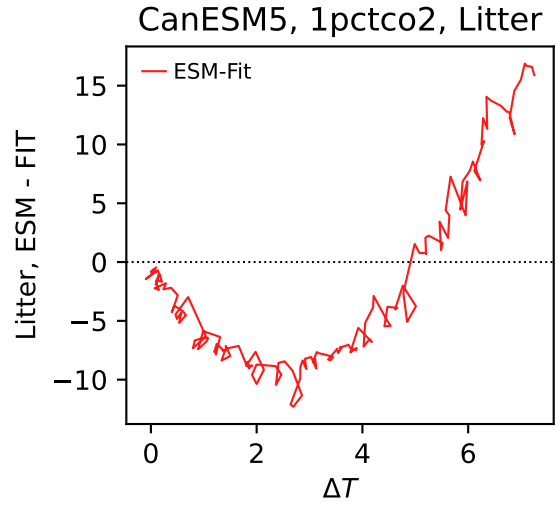

CanESM5, 1pctco2, GPP, ln(MSE/SIGMA)
191, -0.1057, 422.6563, 0.0121, 0.0204, 0.0799, 0.9275, 0.8533, 0
CanESM5
gpp_c_tan2
gpp_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
23.40
22.95
22.50
22.05
21.60
21.15
20.70
20.25
19.80
19.35

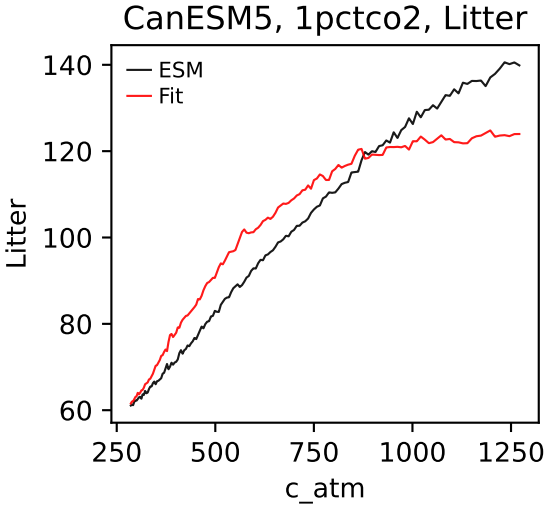

CanESM5, 1pctco2, GPP, ln(MSE/SIGMA)
191, -0.1057, 422.6563, 0.0121, 0.0204, 0.0799, 0.9275, 0.8533, 0
gpp_slow
gpp_fast
CanESM5
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
22.80
22.72
22.64
22.56
22.48
22.40
22.32
22.24

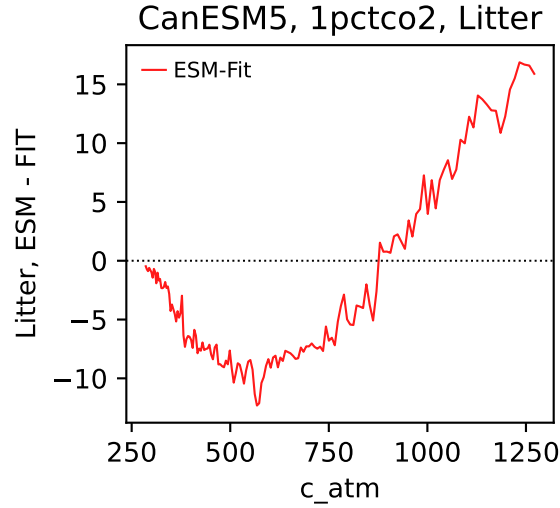

CanESM5, 1pctco2, Litter
ESM
Fit
Litter
Year

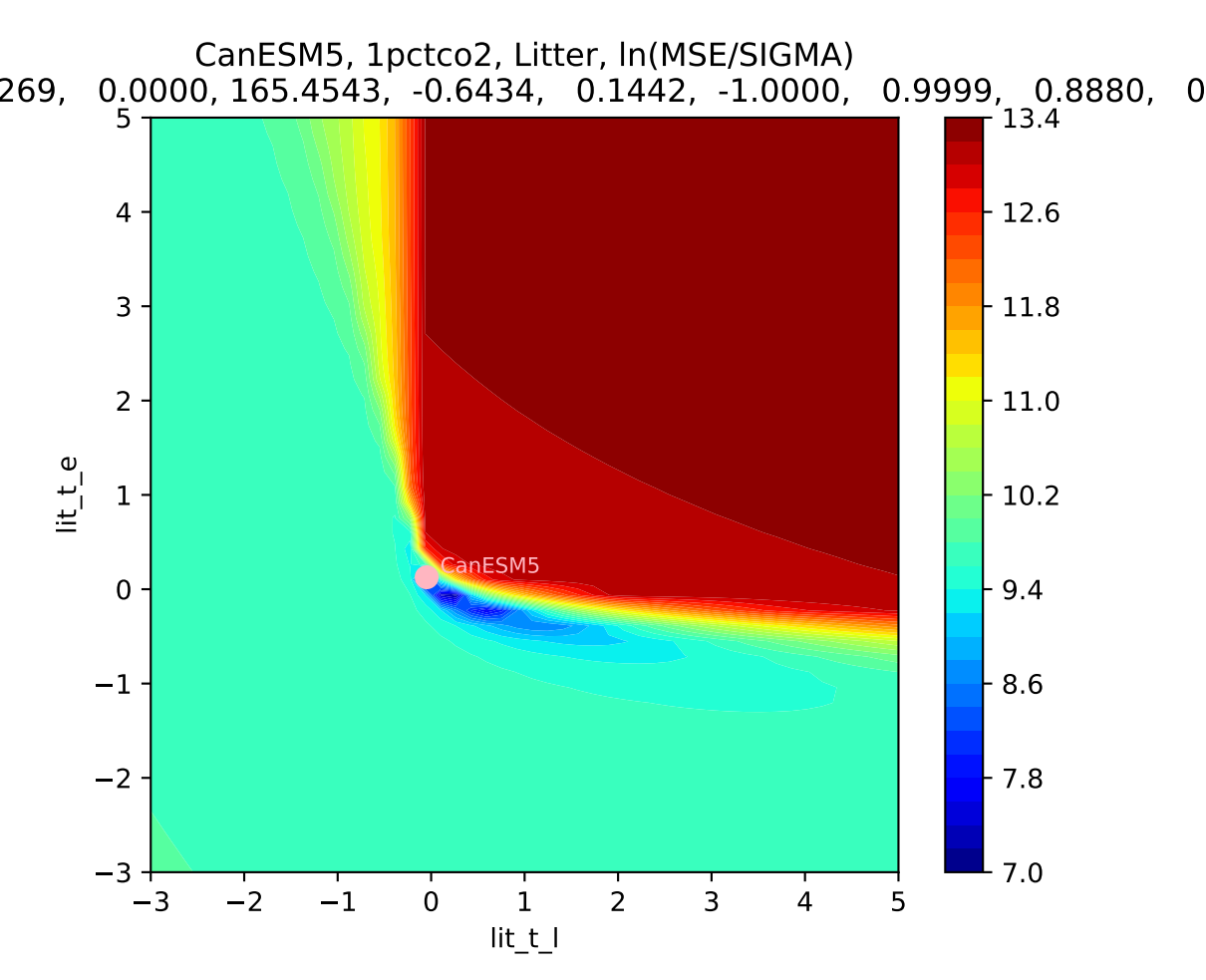

CanESM5, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
Year

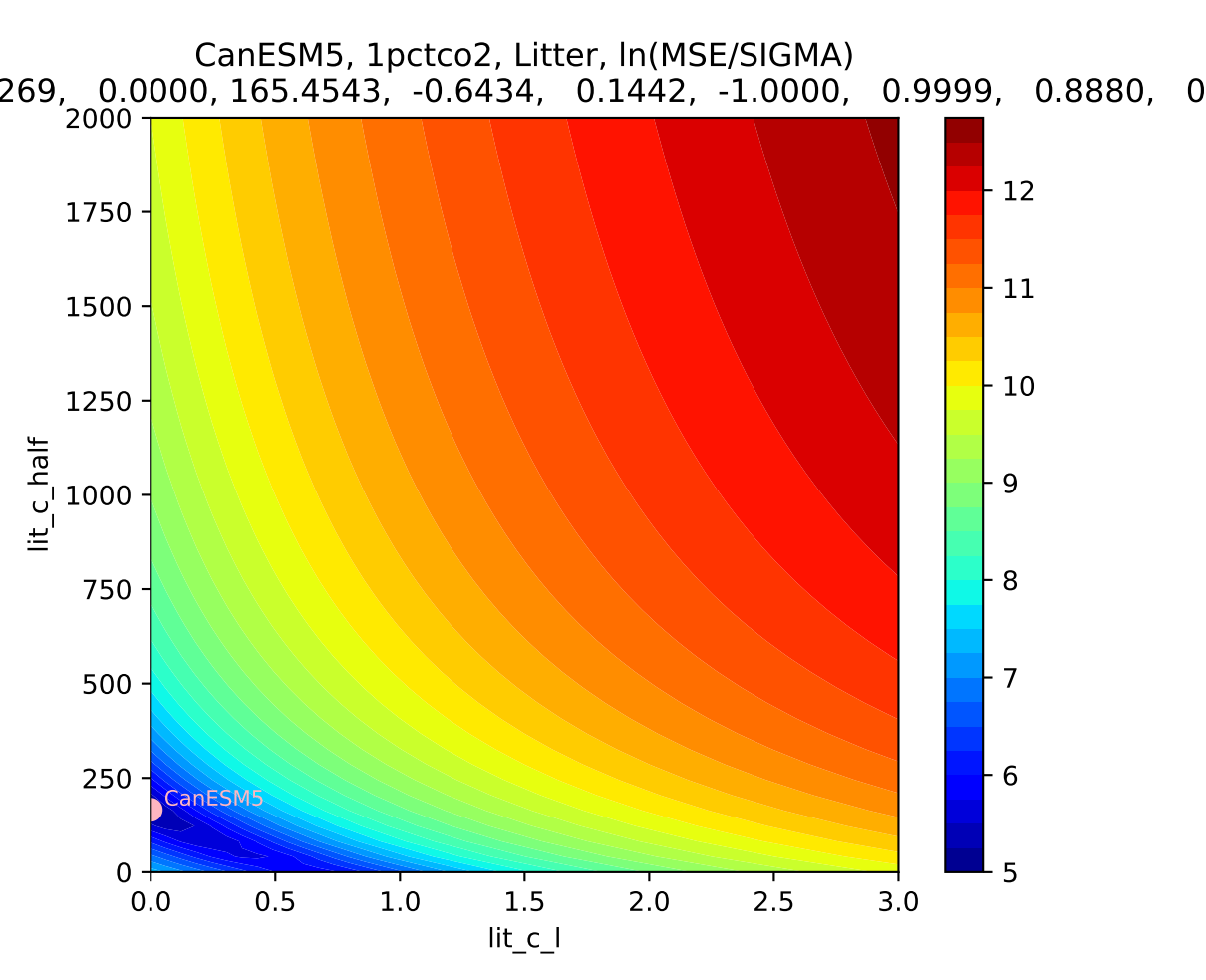

CanESM5, 1pctco2, Litter
ESM
Fit
Litter
ΔT

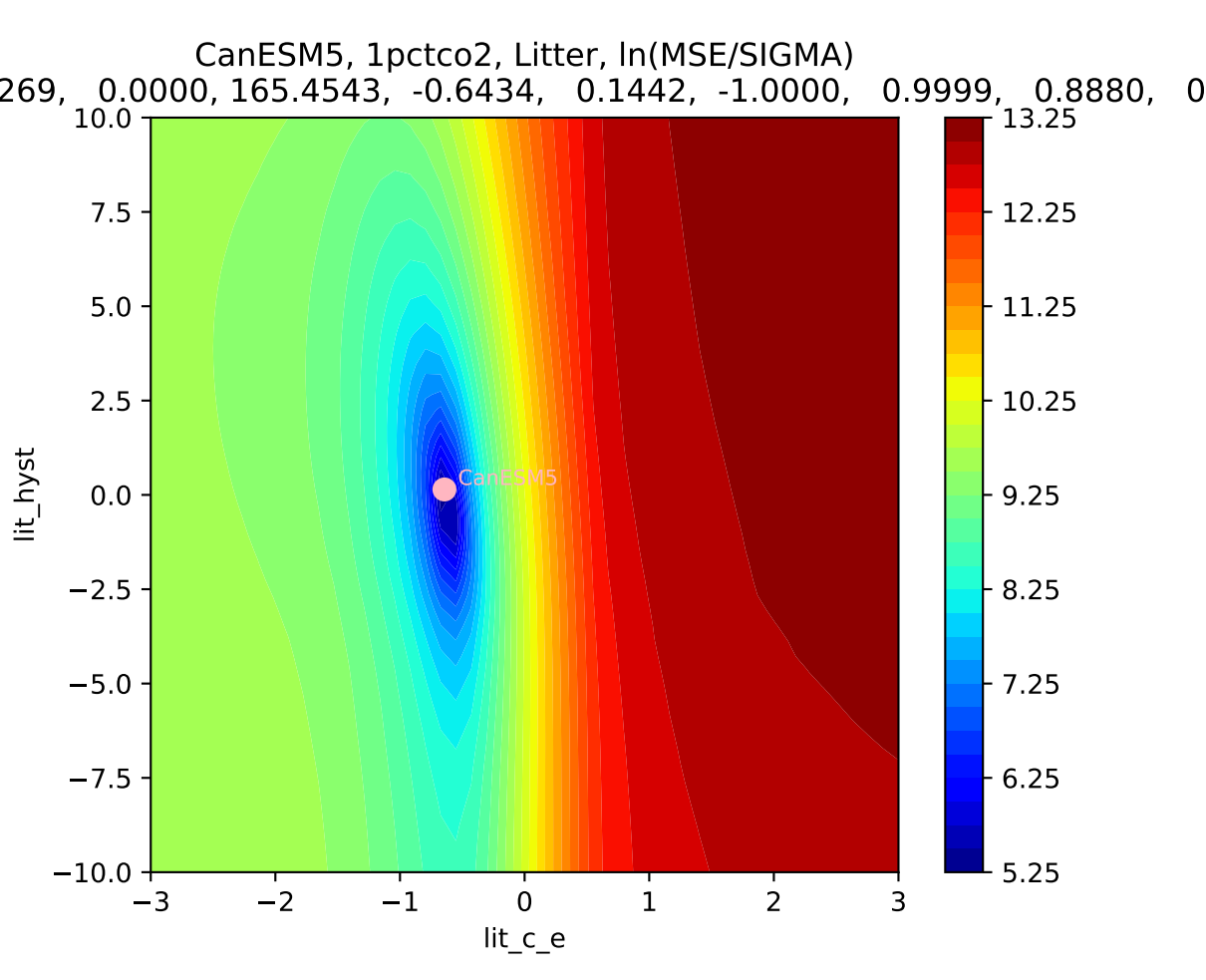

CanESM5, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

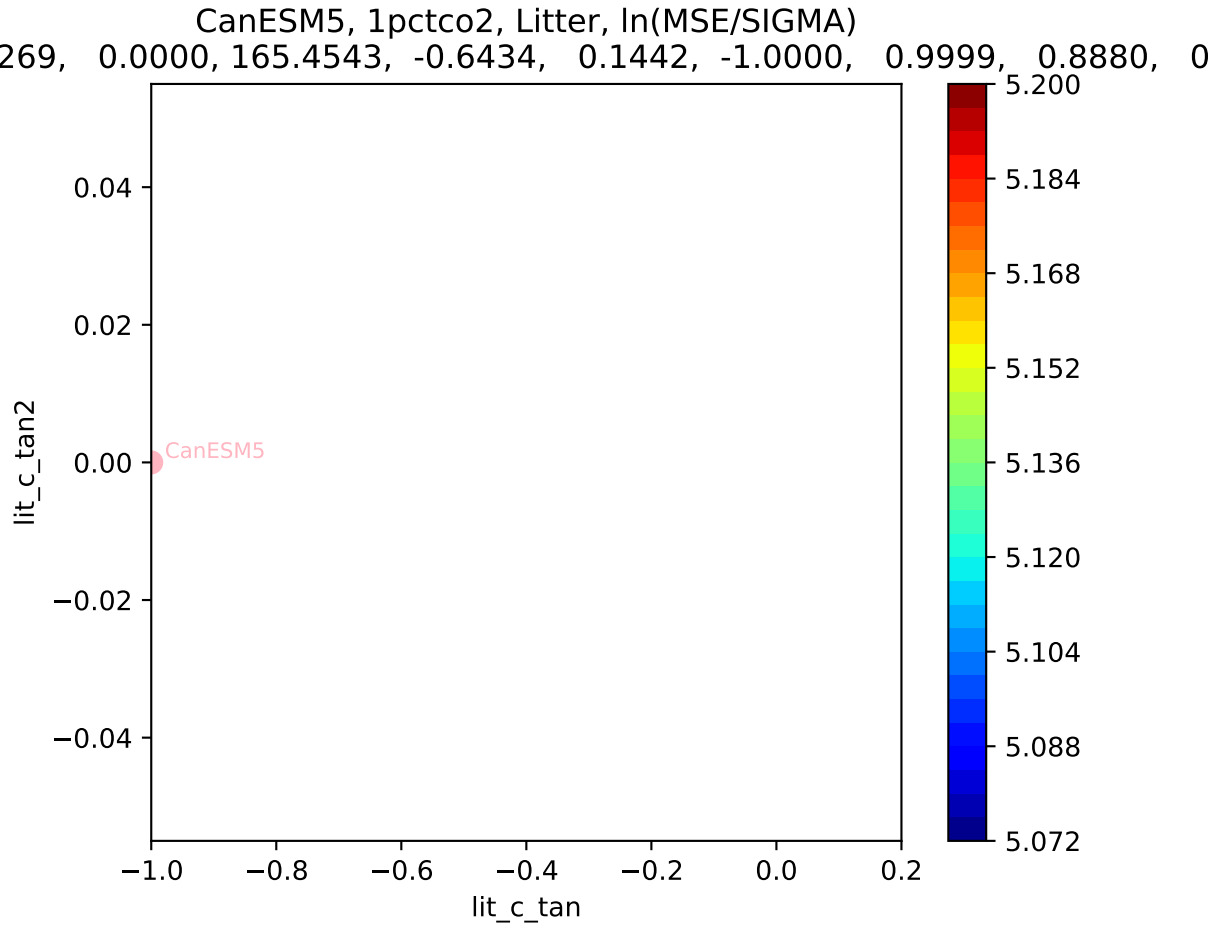

CanESM5, 1pctco2, Litter
ESM
Fit
Litter
c_atm

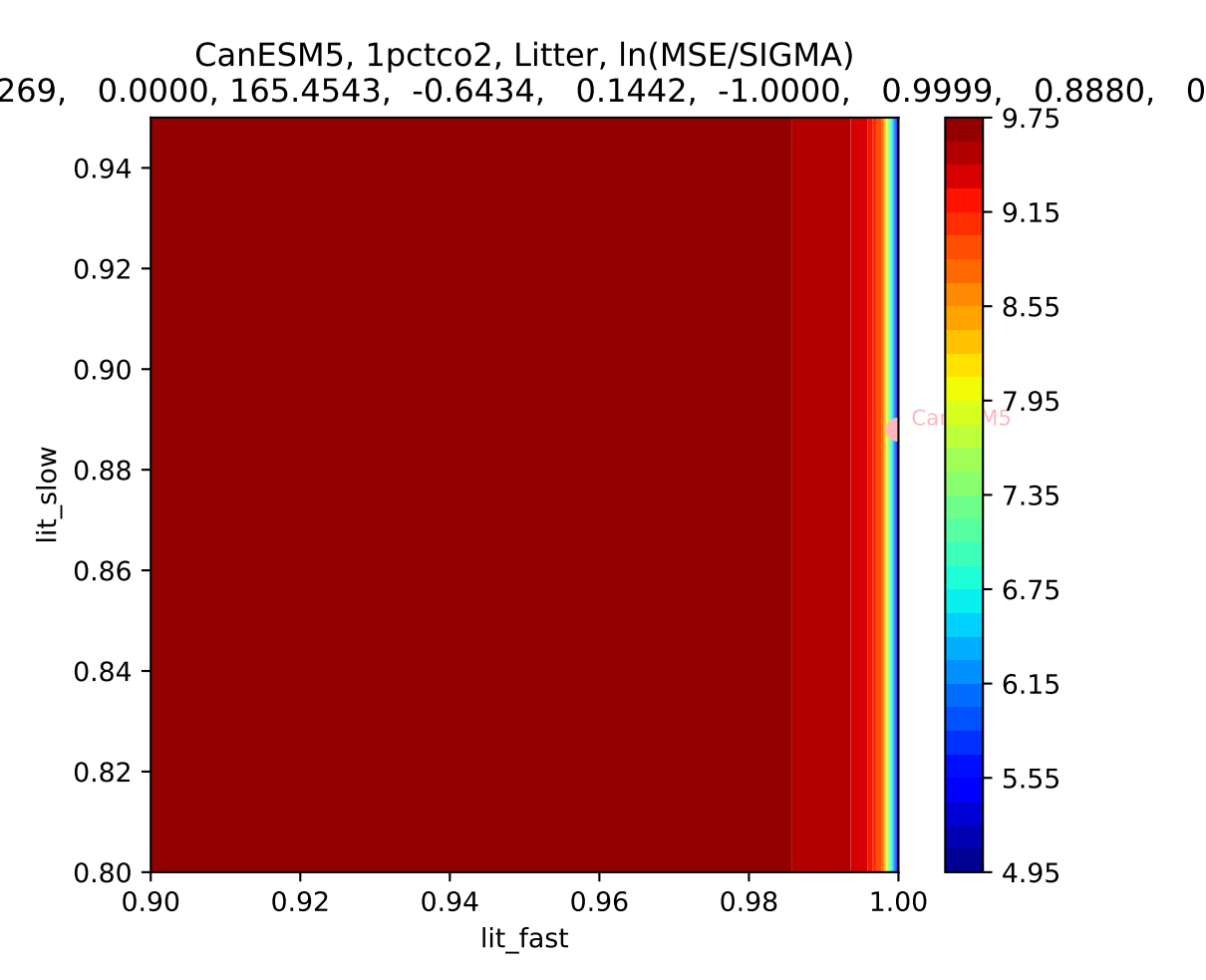

CanESM5, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

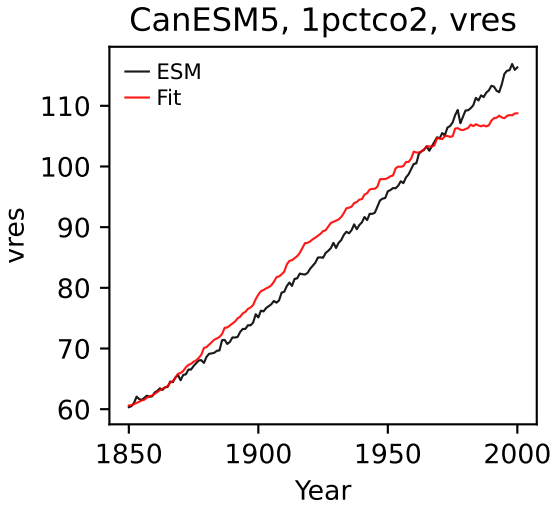

CanESM5, 1pctco2, Litter, ln(MSE/SIGMA)
269, 0.0000, 165.4543, -0.6434, 0.1442, -1.0000, 0.9999, 0.8880, 0
CanESM5
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
13.4
12.6
11.8
11.0
10.2
9.4
8.6
7.8
7.0

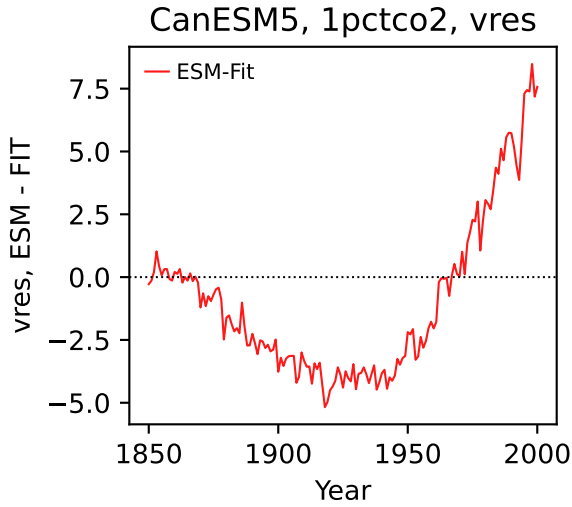

CanESM5, 1pctco2, Litter, ln(MSE/SIGMA)
269, 0.0000, 165.4543, -0.6434, 0.1442, -1.0000, 0.9999, 0.8880, 0
lit_c_half
lit_c_l
CanESM5
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
12
11
10
9
8
7
6
5

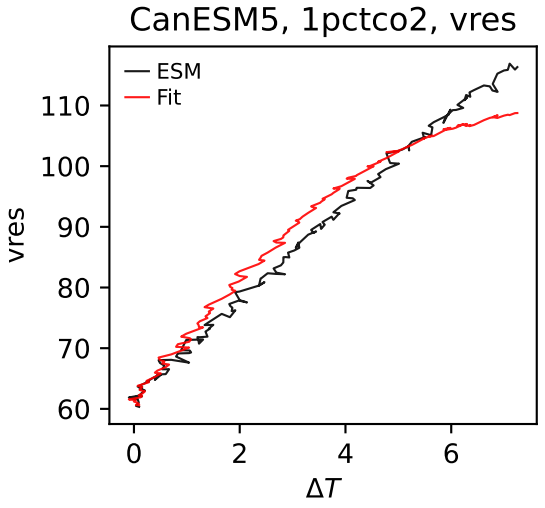

CanESM5, 1pctco2, Litter, ln(MSE/SIGMA)
269, 0.0000, 165.4543, -0.6434, 0.1442, -1.0000, 0.9999, 0.8880, 0
lit_hyst
lit_c_e
CanESM5
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
13.25
12.25
11.25
10.25
9.25
8.25
7.25
6.25
5.25

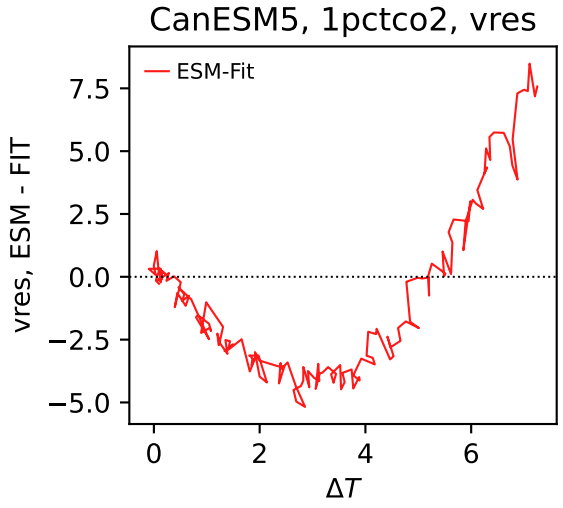

CanESM5, 1pctco2, Litter, ln(MSE/SIGMA)
269, 0.0000, 165.4543, -0.6434, 0.1442, -1.0000, 0.9999, 0.8880, 0
CanESM5
lit_c_tan2
lit_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
5.200
5.184
5.168
5.152
5.136
5.120
5.104
5.088
5.072

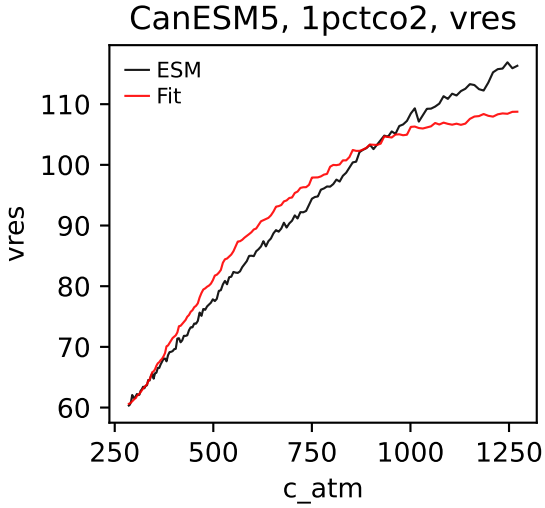

CanESM5, 1pctco2, Litter, ln(MSE/SIGMA)
269, 0.0000, 165.4543, -0.6434, 0.1442, -1.0000, 0.9999, 0.8880, 0
lit_slow
lit_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
9.75
9.15
8.55
7.95
7.35
6.75
6.15
5.55
4.95

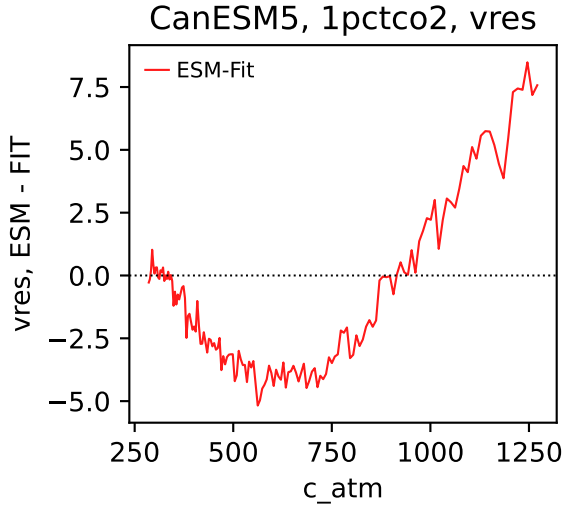

CanESM5, 1pctco2, vres
ESM
Fit
vres
Year

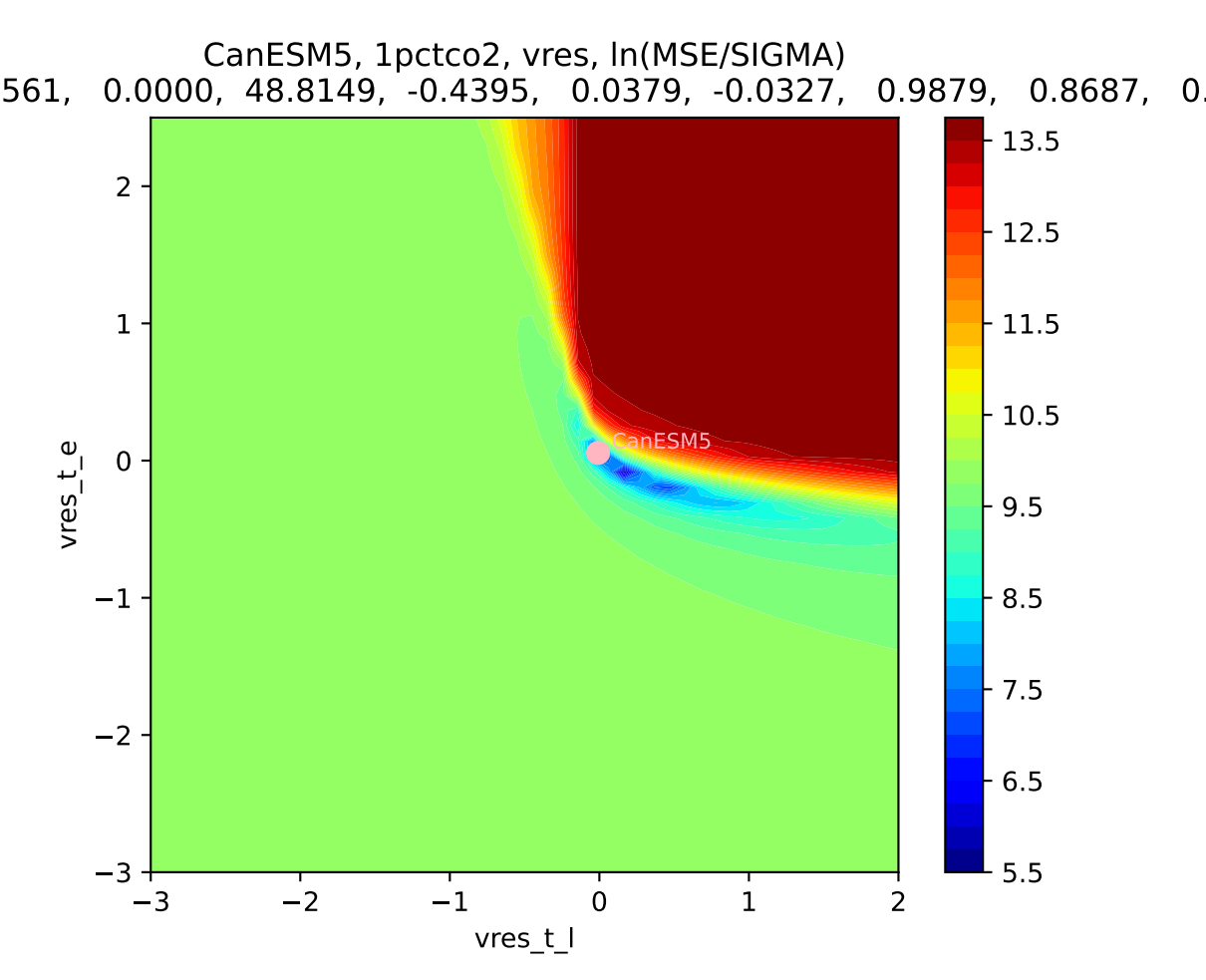

CanESM5, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
Year

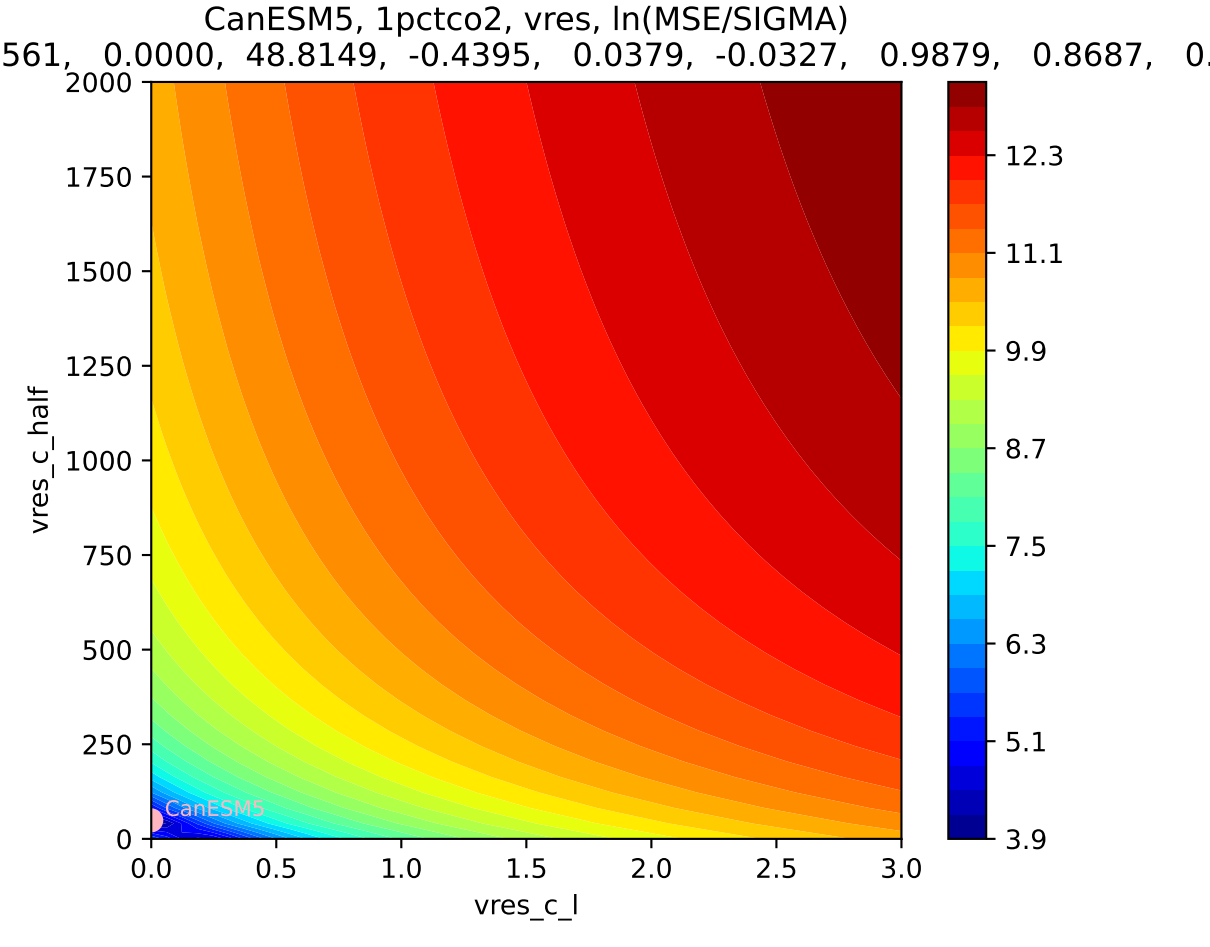

CanESM5, 1pctco2, vres
ESM
Fit
vres
ΔT

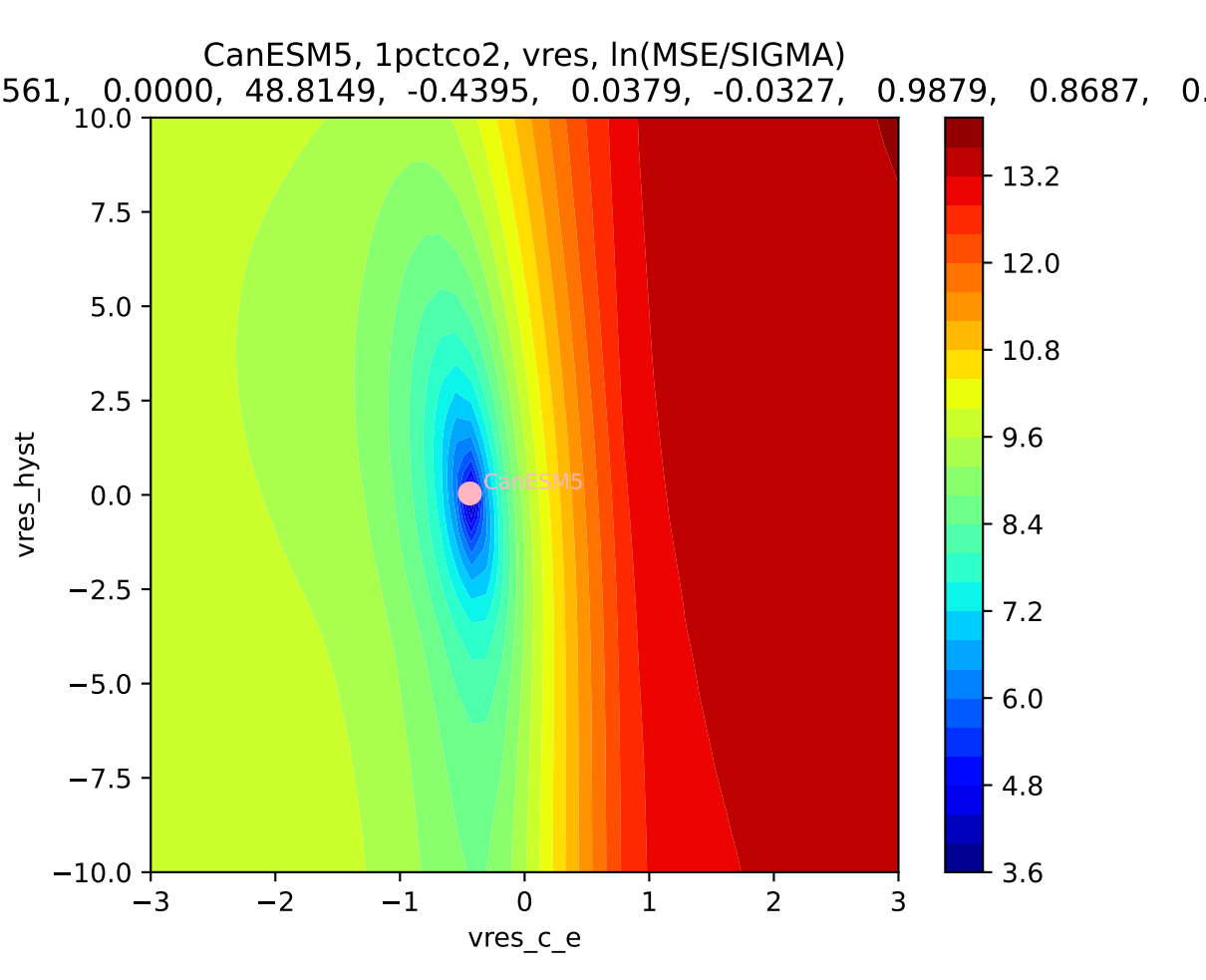

CanESM5, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
ΔT

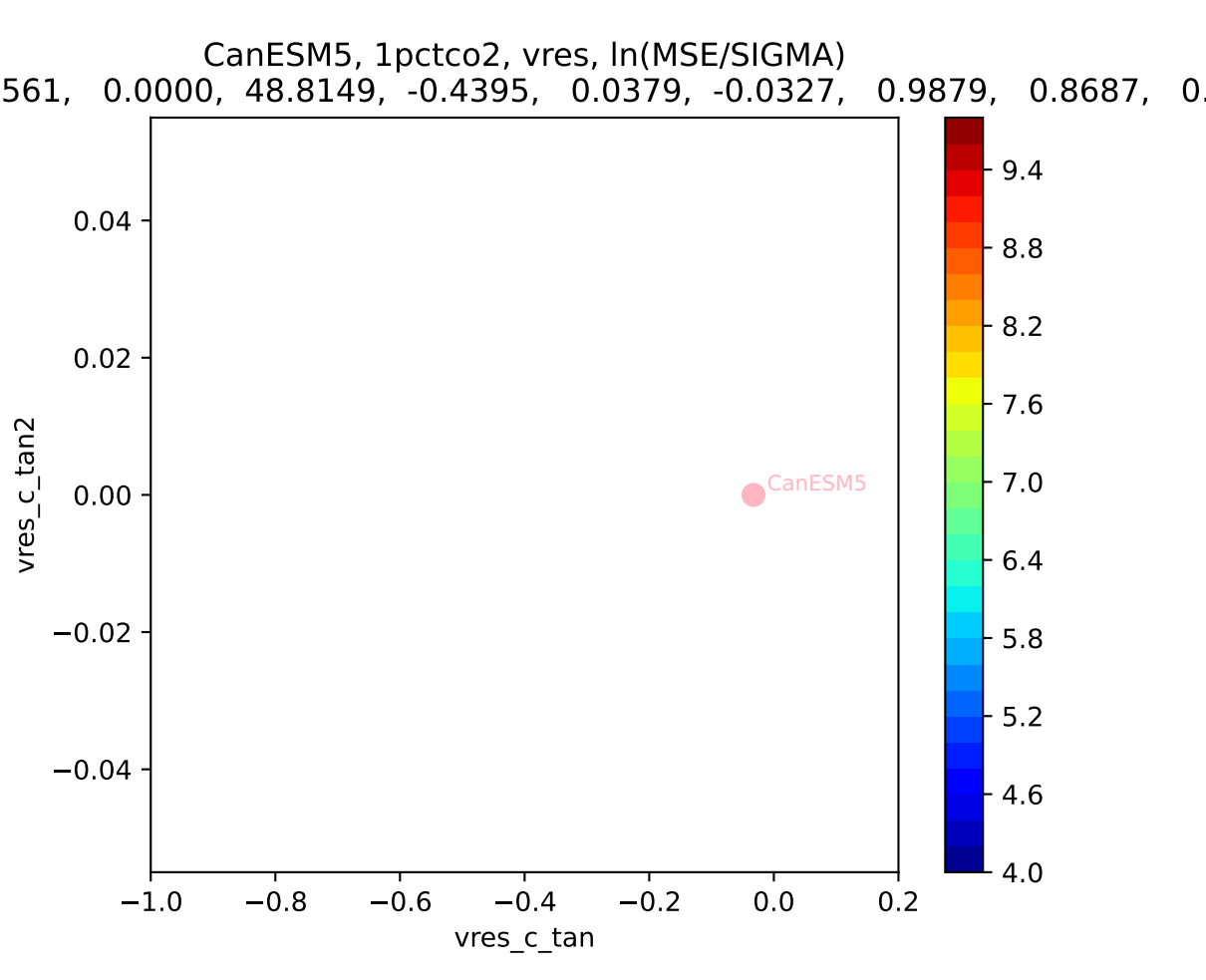

CanESM5, 1pctco2, vres
ESM
Fit
vres
c_atm

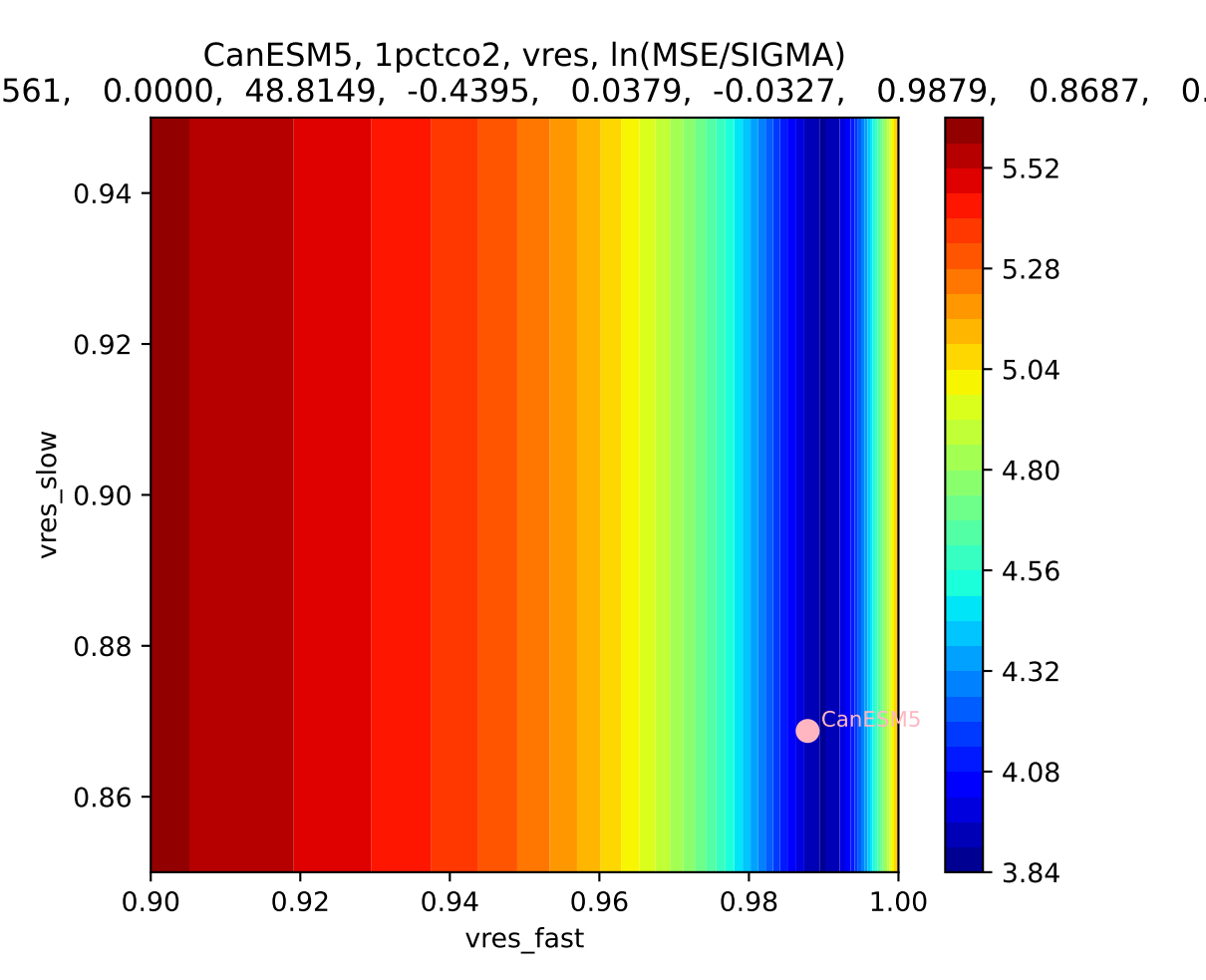

CanESM5, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
c_atm

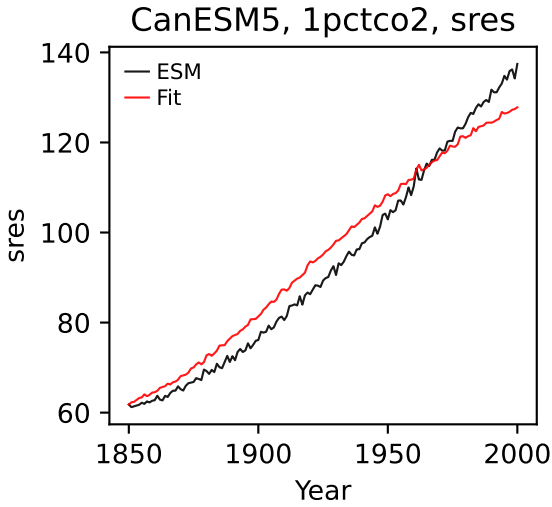

CanESM5, 1pctco2, vres, ln(MSE/SIGMA)
561, 0.0000, 48.8149, -0.4395, 0.0379, -0.0327, 0.9879, 0.8687, 0.
CanESM5
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
13.5
12.5
11.5
10.5
9.5
8.5
7.5
6.5
5.5

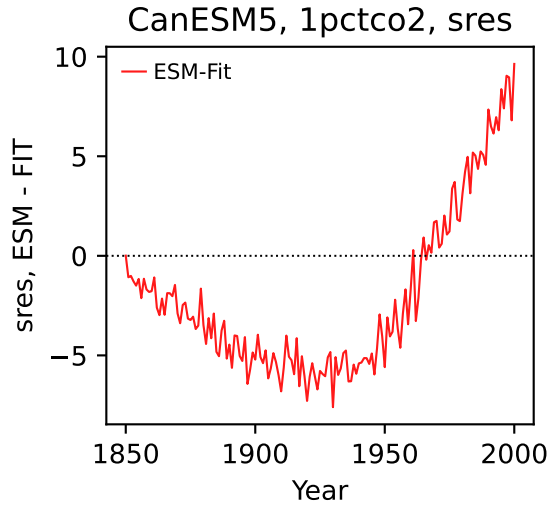

CanESM5, 1pctco2, vres, ln(MSE/SIGMA)
561, 0.0000, 48.8149, -0.4395, 0.0379, -0.0327, 0.9879, 0.8687, 0.
vres_c_half
vres_c_l
CanESM5
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
12.3
11.1
9.9
8.7
7.5
6.3
5.1
3.9

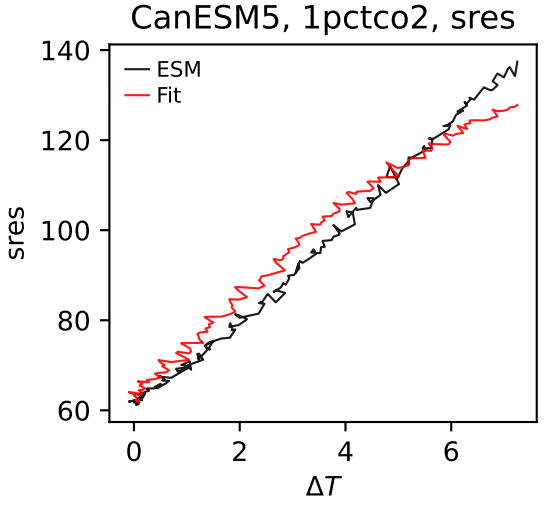

CanESM5, 1pctco2, vres, ln(MSE/SIGMA)
561, 0.0000, 48.8149, -0.4395, 0.0379, -0.0327, 0.9879, 0.8687, 0.
CanESM5
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
13.2
12.0
10.8
9.6
8.4
7.2
6.0
4.8
3.6

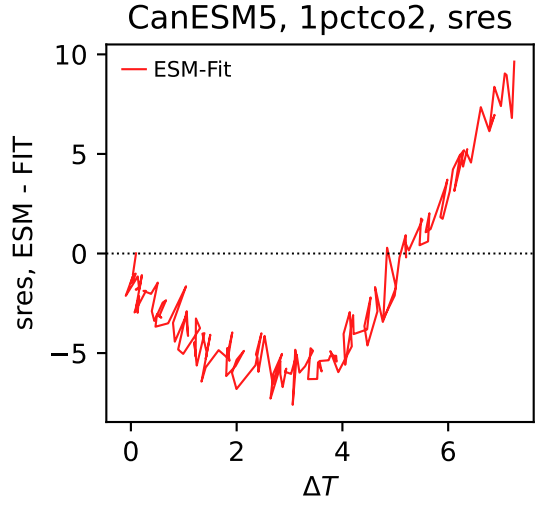

CanESM5, 1pctco2, vres, ln(MSE/SIGMA)
561, 0.0000, 48.8149, -0.4395, 0.0379, -0.0327, 0.9879, 0.8687, 0.
CanESM5
vres_c_tan2
vres_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
9.4
8.8
8.2
7.6
7.0
6.4
5.8
5.2
4.6
4.0

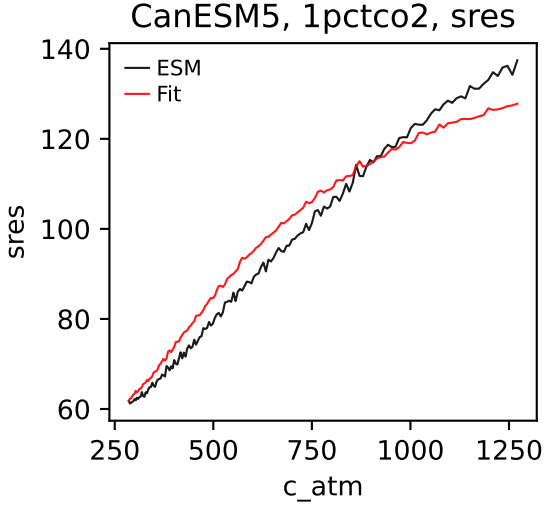

CanESM5, 1pctco2, vres, ln(MSE/SIGMA)
561, 0.0000, 48.8149, -0.4395, 0.0379, -0.0327, 0.9879, 0.8687, 0.
0.94
0.92
0.90
0.88
0.86
vres_slow
0.90
0.92
0.94
0.96
0.98
1.00
vres_fast
CanESM5
5.52
5.28
5.04
4.80
4.56
4.32
4.08
3.84

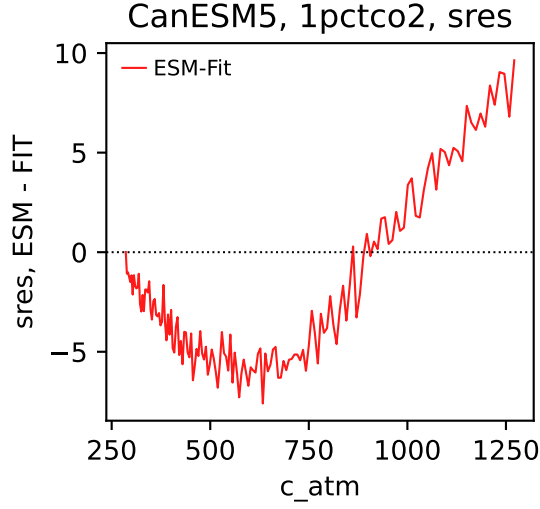

CanESM5, 1pctco2, sres
ESM
Fit
sres
Year

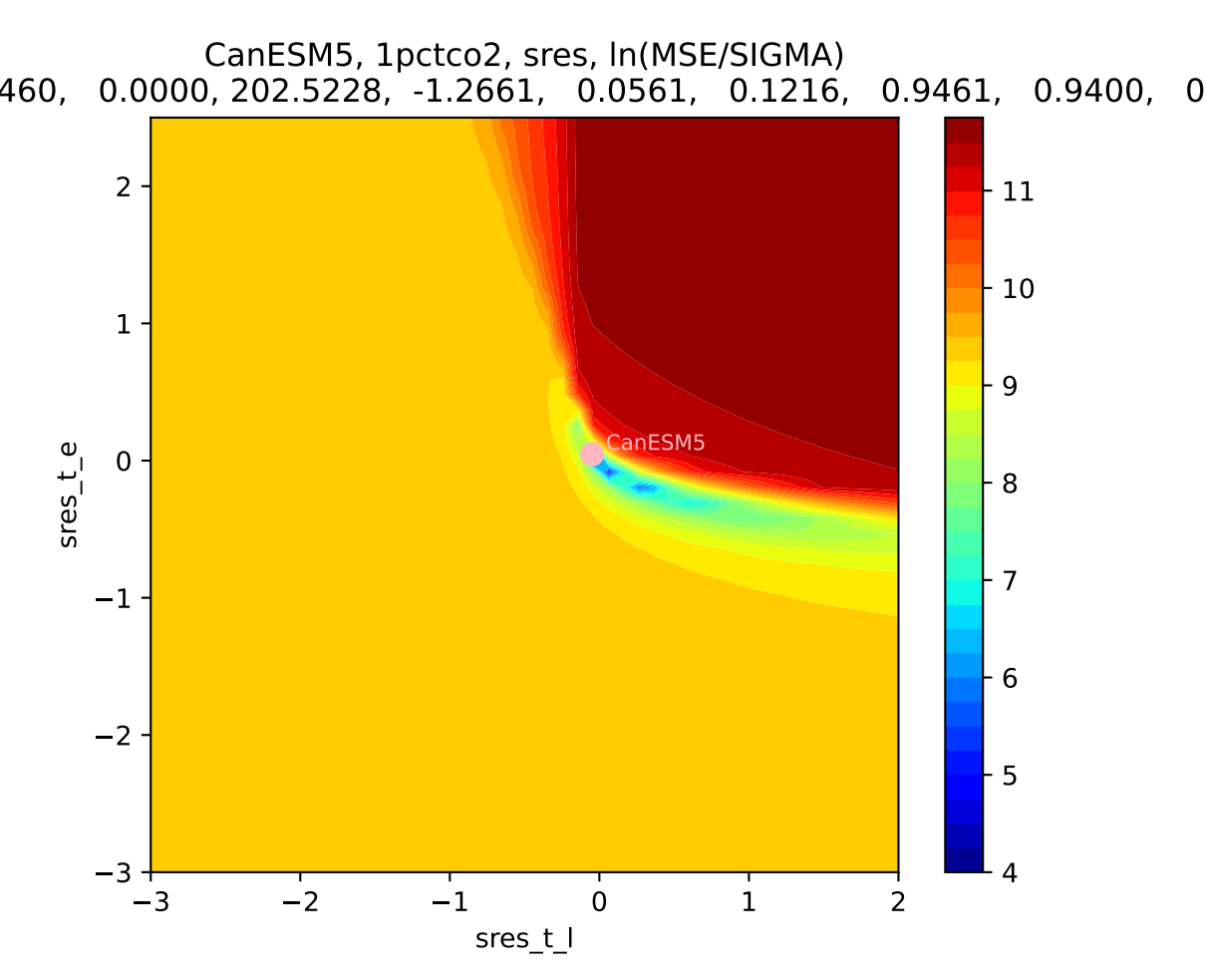

CanESM5, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
Year

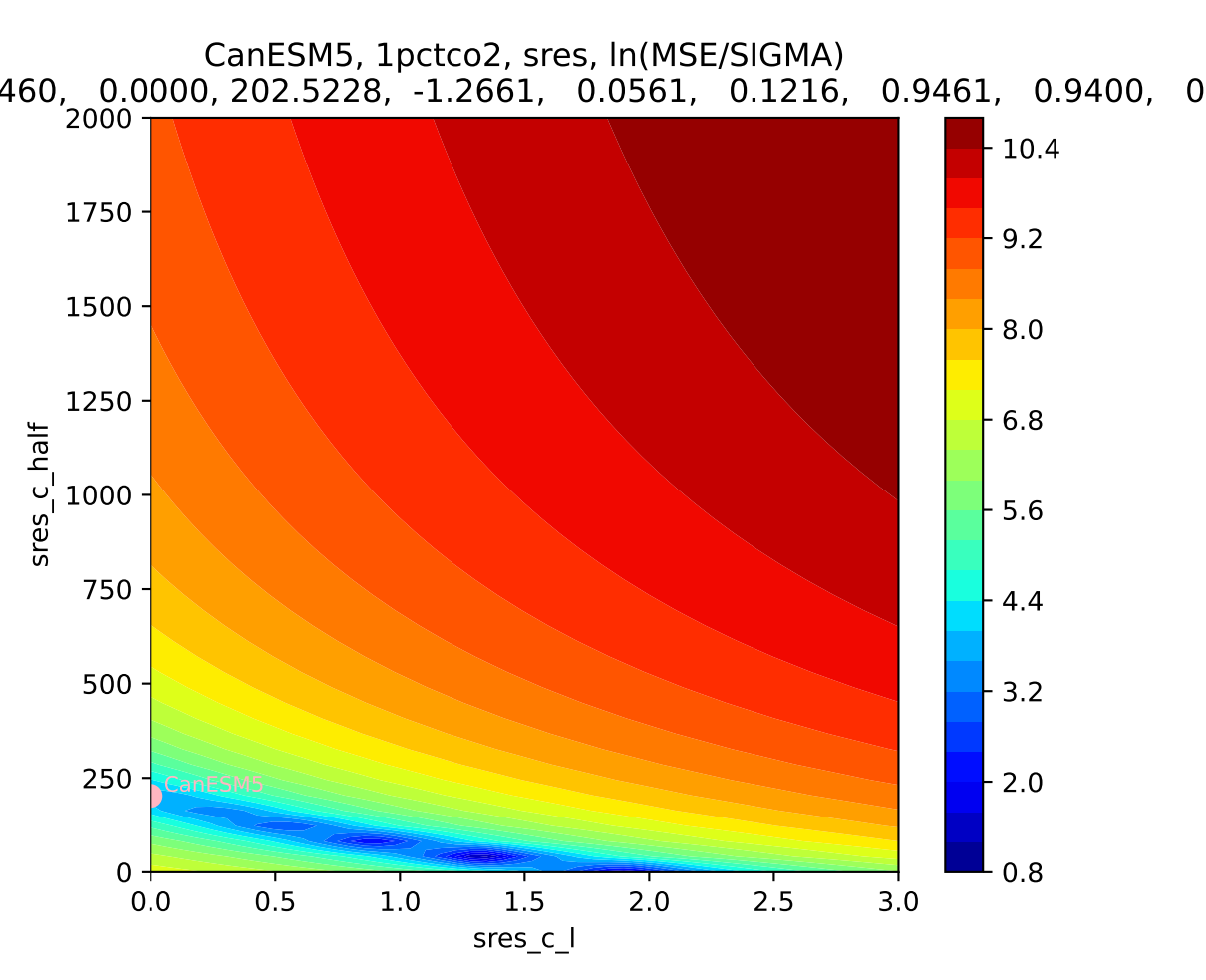

CanESM5, 1pctco2, sres
ESM
Fit
sres
ΔT

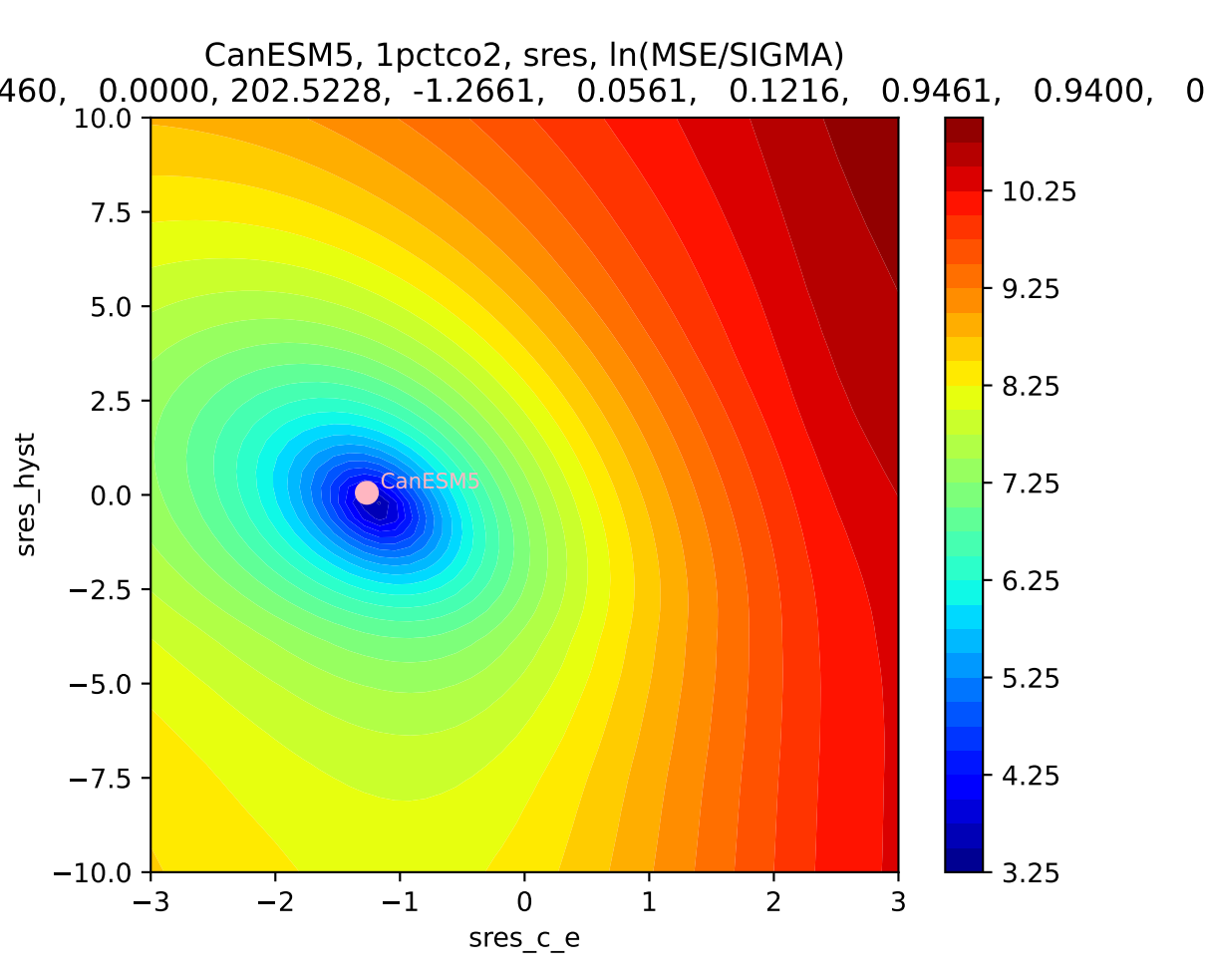

CanESM5, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
ΔT

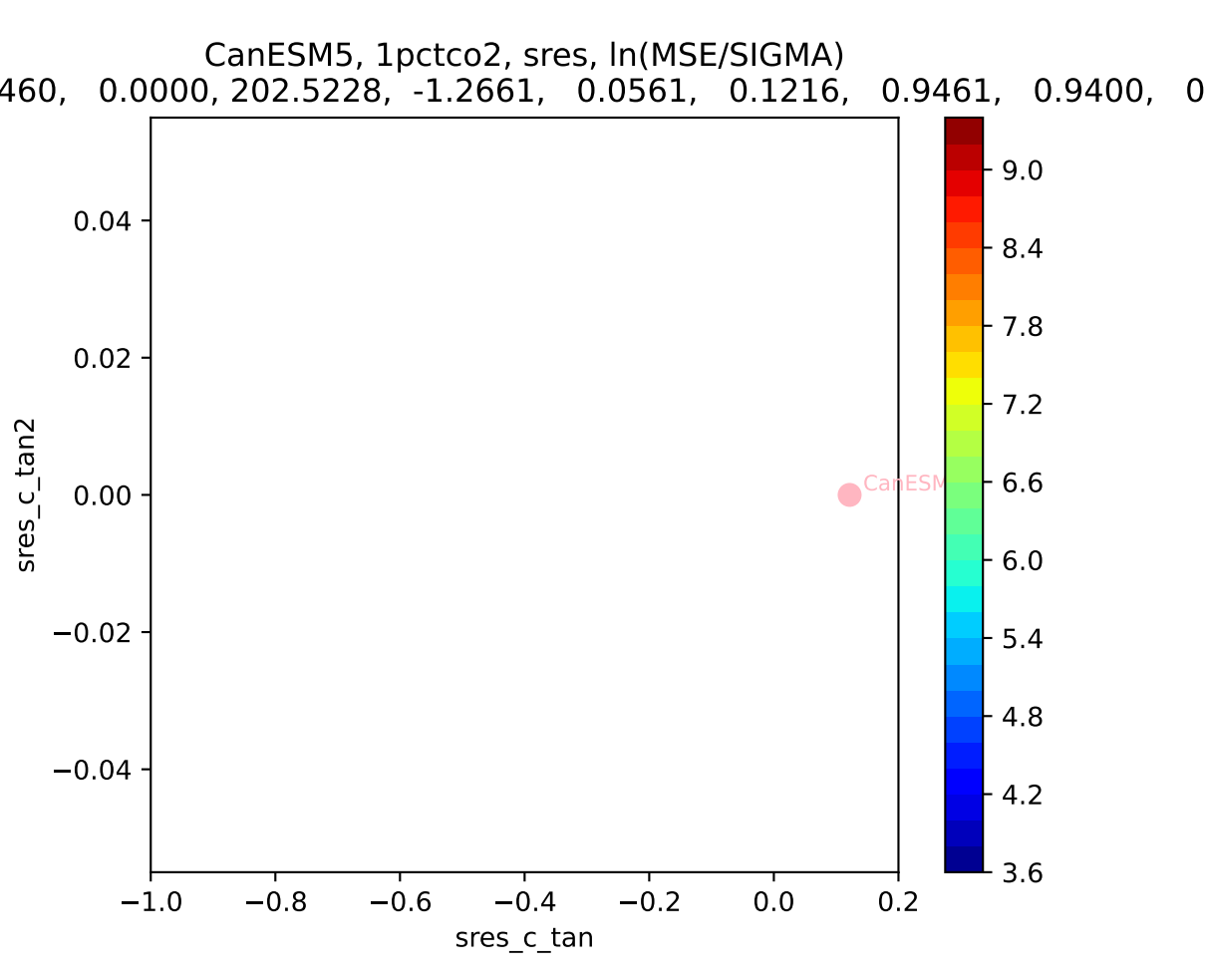

CanESM5, 1pctco2, sres
ESM
Fit
sres
c_atm

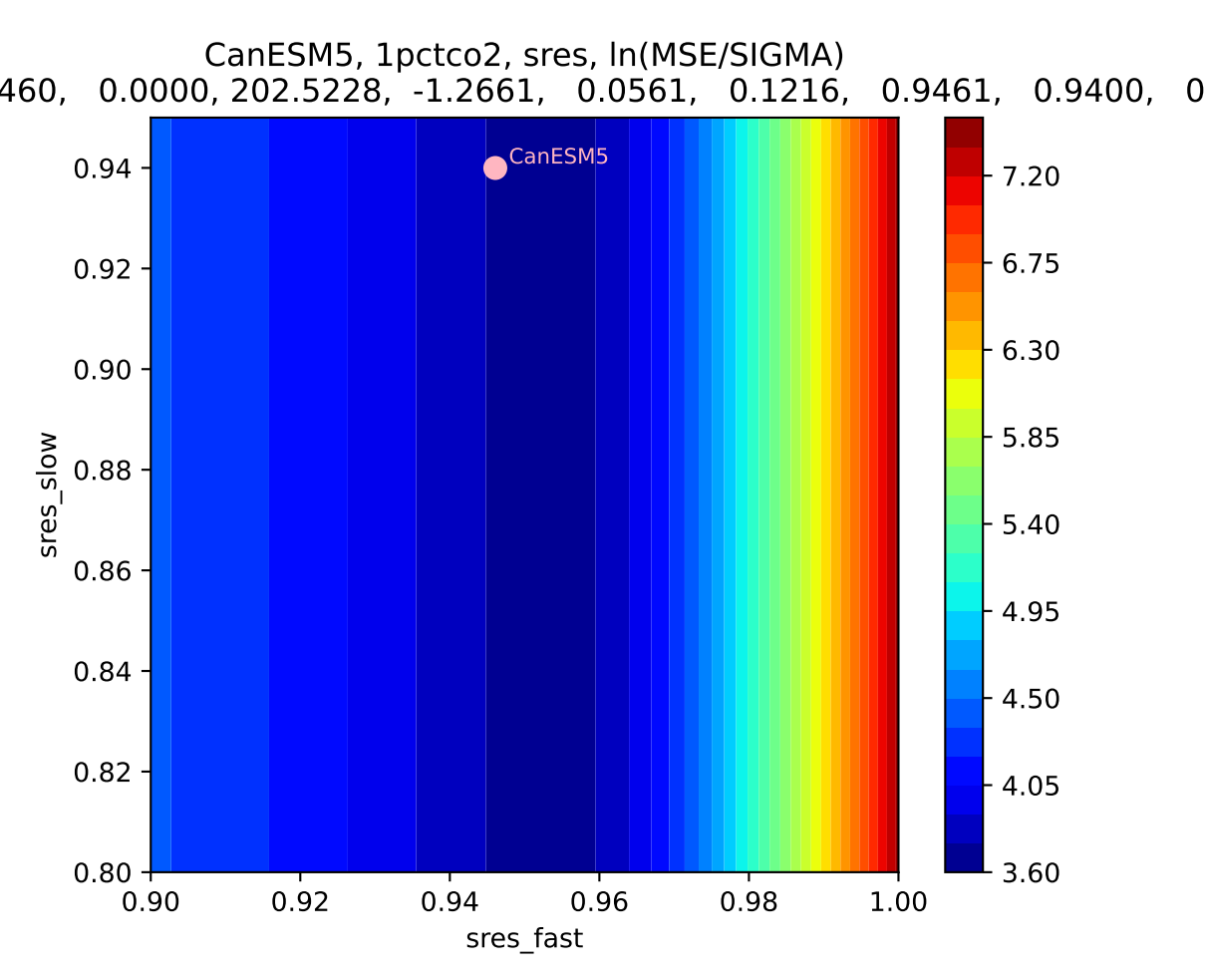

CanESM5, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
c_atm

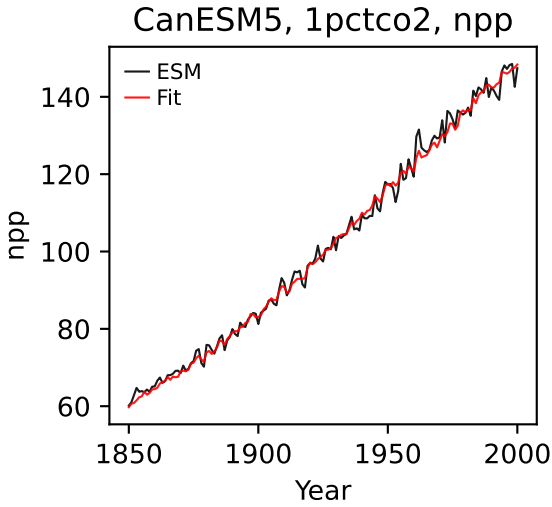

CanESM5, 1pctco2, sres, ln(MSE/SIGMA)
460, 0.0000, 202.5228, -1.2661, 0.0561, 0.1216, 0.9461, 0.9400, 0
CanESM5
sres_t_e
sres_t_l
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
11
10
9
8
7
6
5
4

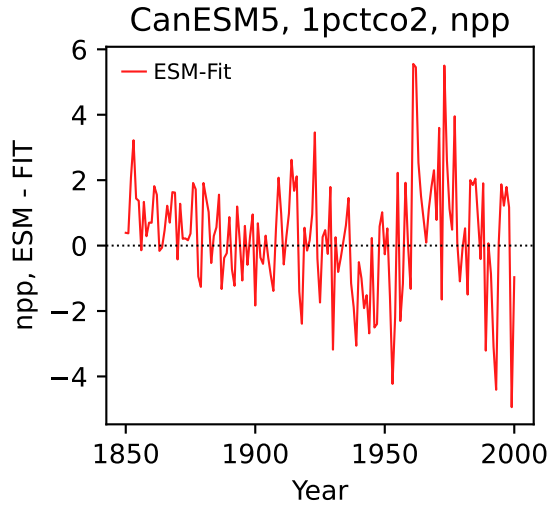

CanESM5, 1pctco2, sres, ln(MSE/SIGMA)
460, 0.0000, 202.5228, -1.2661, 0.0561, 0.1216, 0.9461, 0.9400, 0
sres_c_half
sres_c_l
CanESM5
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
10.4
9.2
8.0
6.8
5.6
4.4
3.2
2.0
0.8

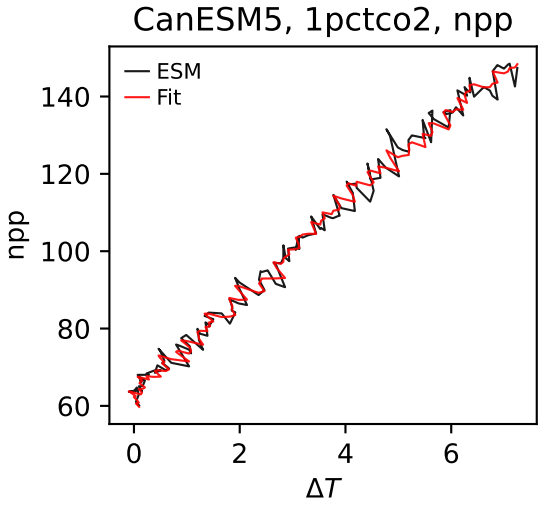

CanESM5, 1pctco2, sres, ln(MSE/SIGMA)
460, 0.0000, 202.5228, -1.2661, 0.0561, 0.1216, 0.9461, 0.9400, 0
CanESM5
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.25
9.25
8.25
7.25
6.25
5.25
4.25
3.25

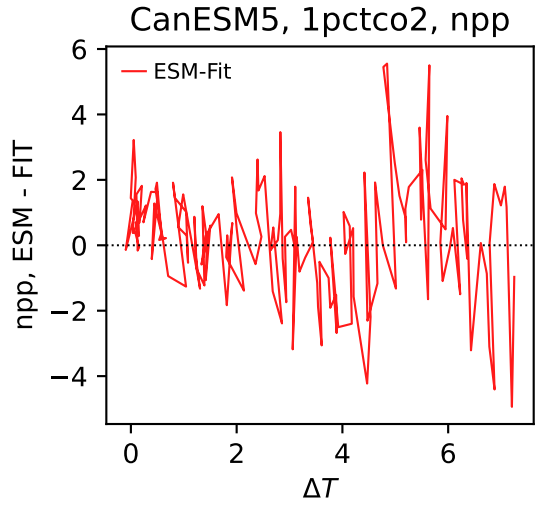

CanESM5, 1pctco2, sres, ln(MSE/SIGMA)
460, 0.0000, 202.5228, -1.2661, 0.0561, 0.1216, 0.9461, 0.9400, 0
0.04
0.02
0.00
−0.02
−0.04
sres_c_tan2
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
sres_c_tan
9.0
8.4
7.8
7.2
6.6
6.0
5.4
4.8
4.2
3.6

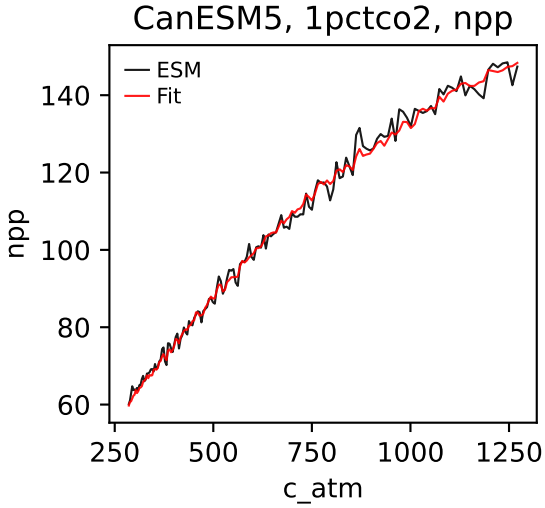

CanESM5, 1pctco2, sres, ln(MSE/SIGMA)
460, 0.0000, 202.5228, -1.2661, 0.0561, 0.1216, 0.9461, 0.9400, 0
CanESM5
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
sres_slow
0.90
0.92
0.94
0.96
0.98
1.00
sres_fast
7.20
6.75
6.30
5.85
5.40
4.95
4.50
4.05
3.60

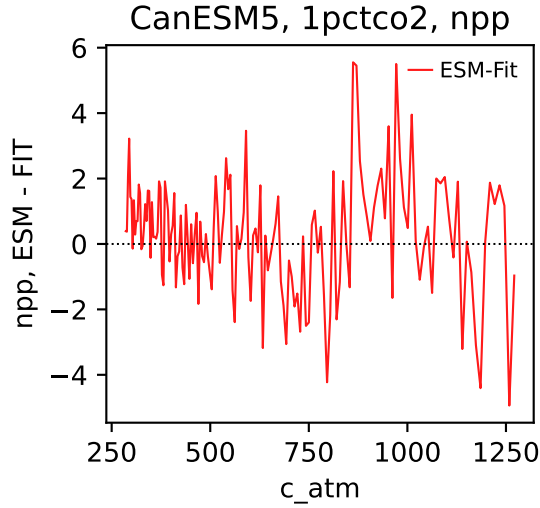

CanESM5, 1pctco2, npp
ESM
Fit
npp
Year

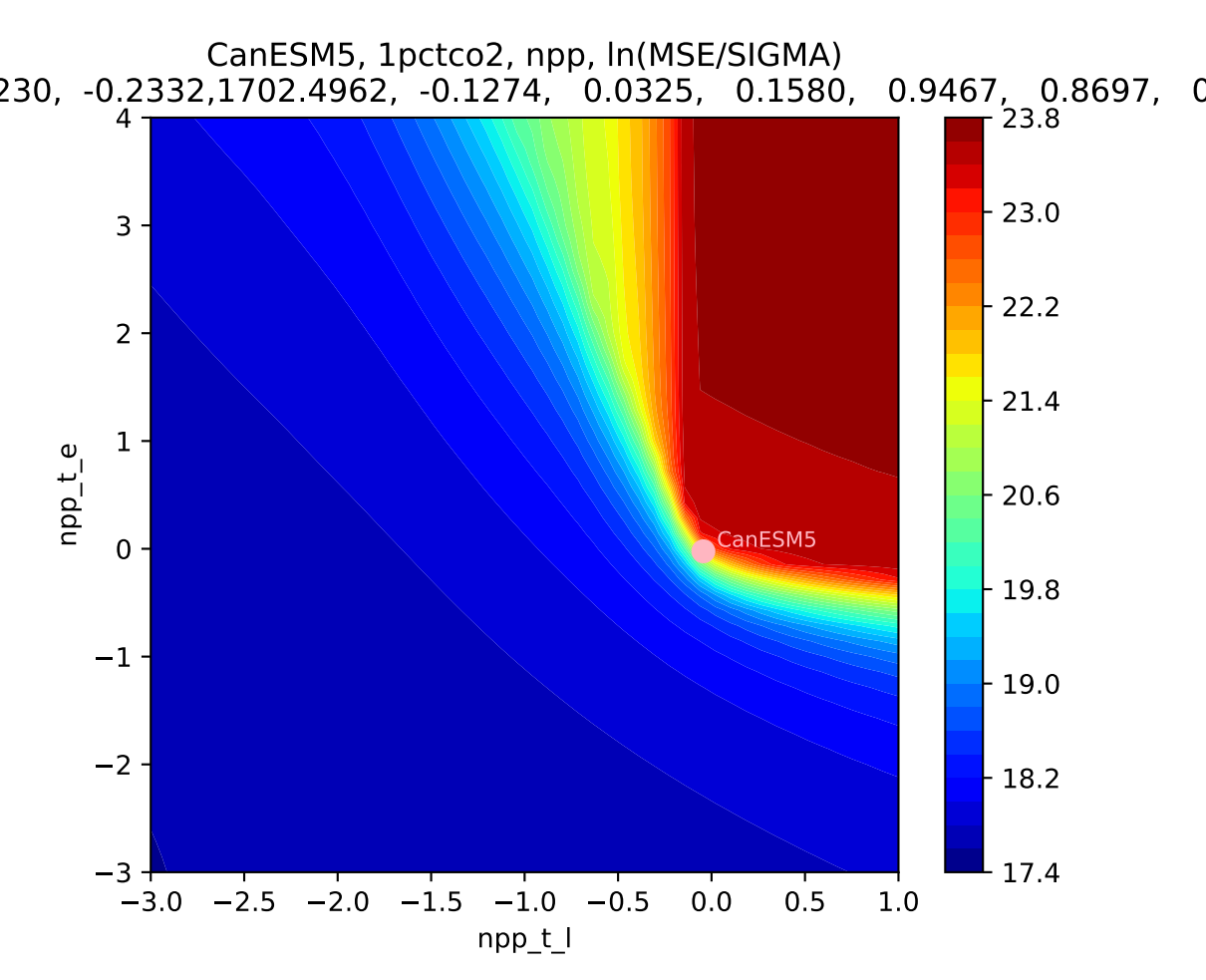

CanESM5, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
Year

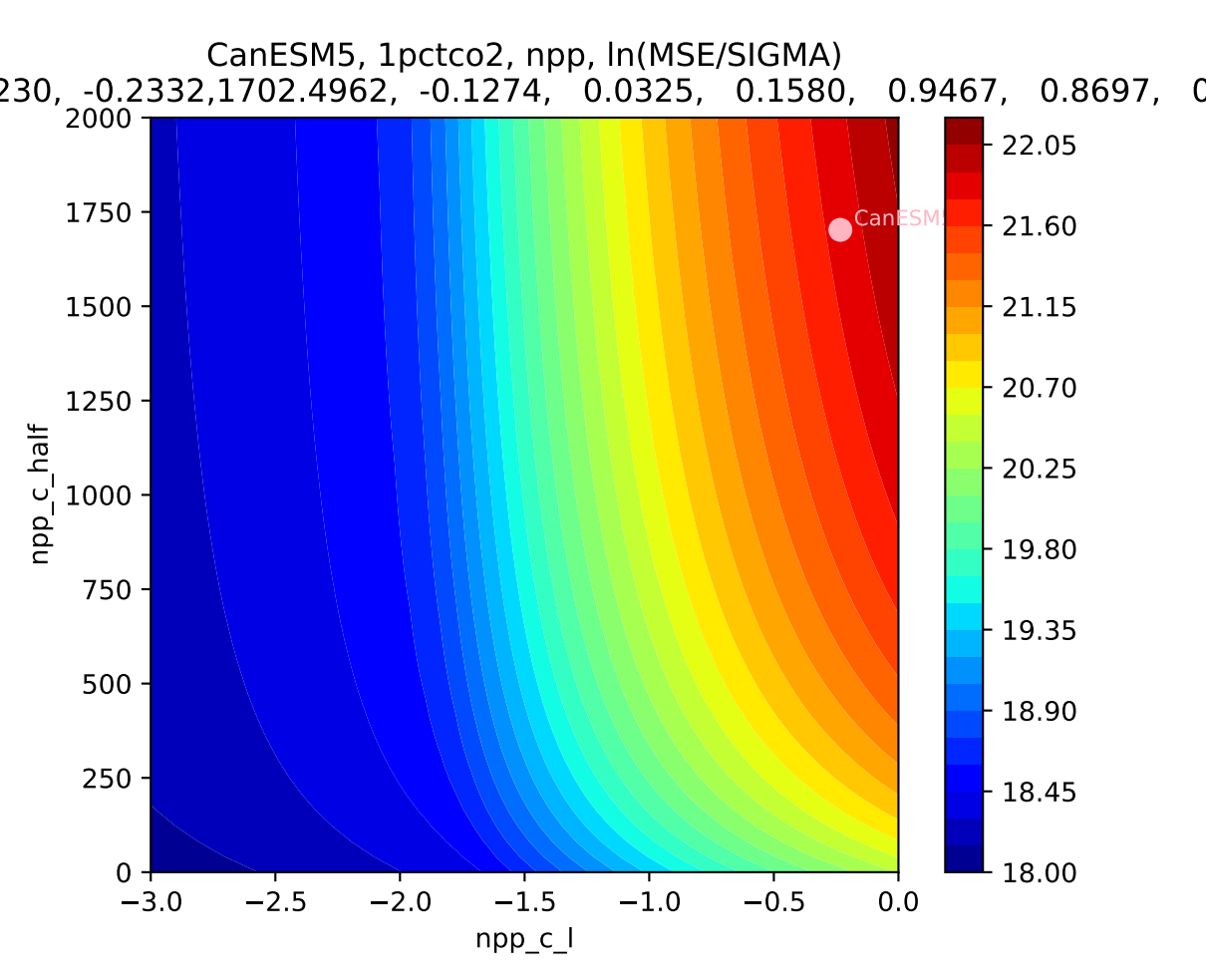

CanESM5, 1pctco2, npp
ESM
Fit
npp
ΔT

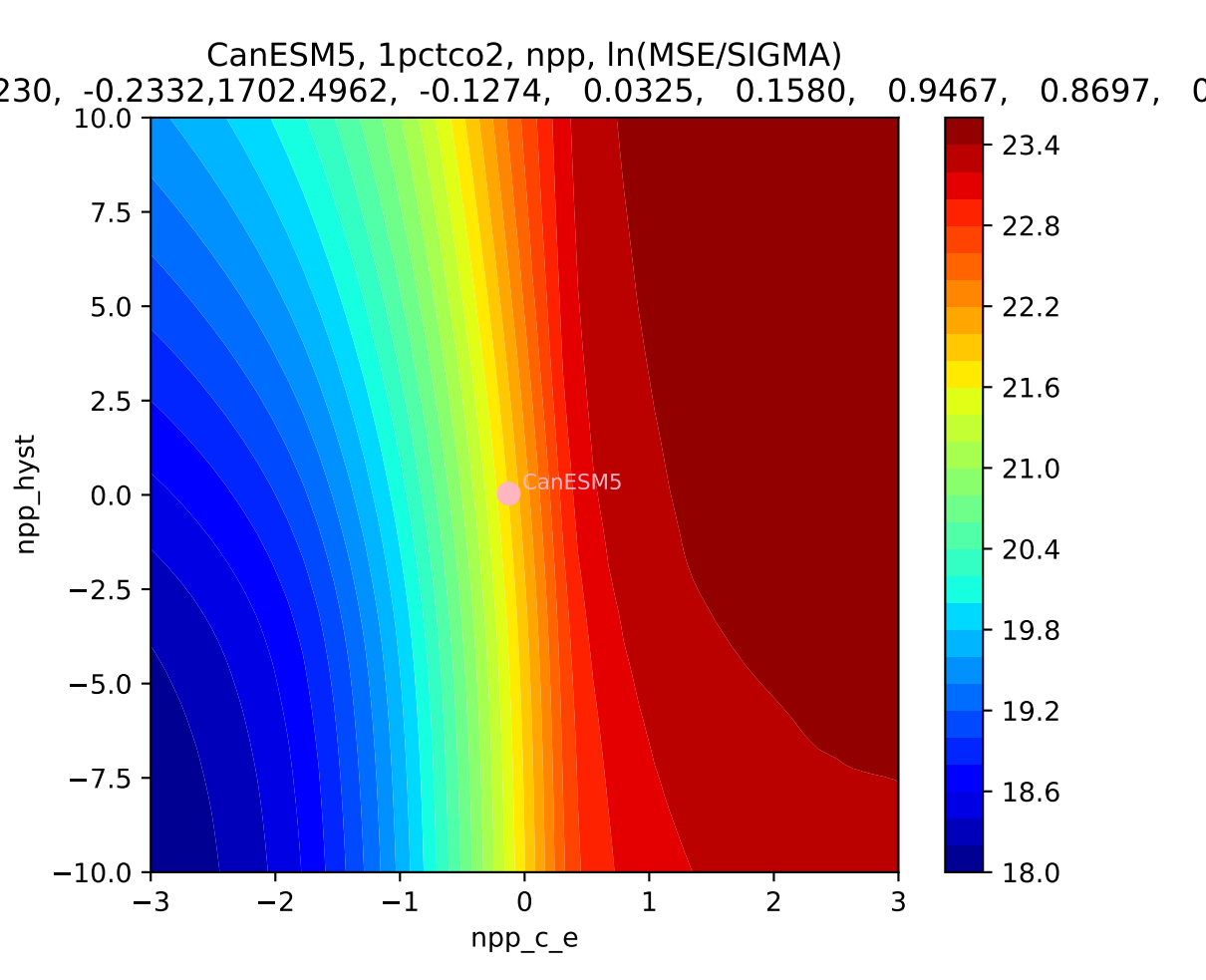

CanESM5, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
ΔT

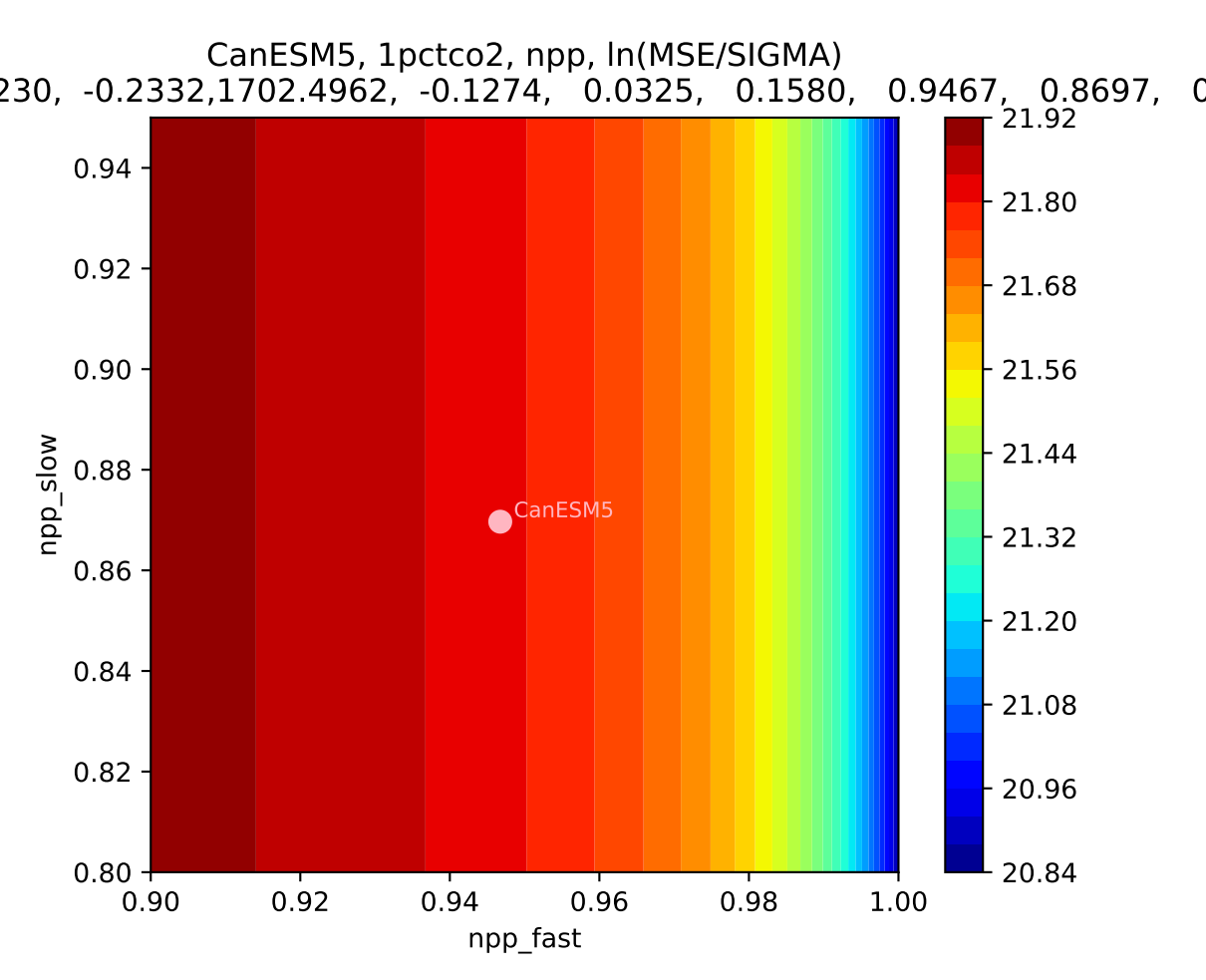

CanESM5, 1pctco2, npp
ESM
Fit
npp
c_atm

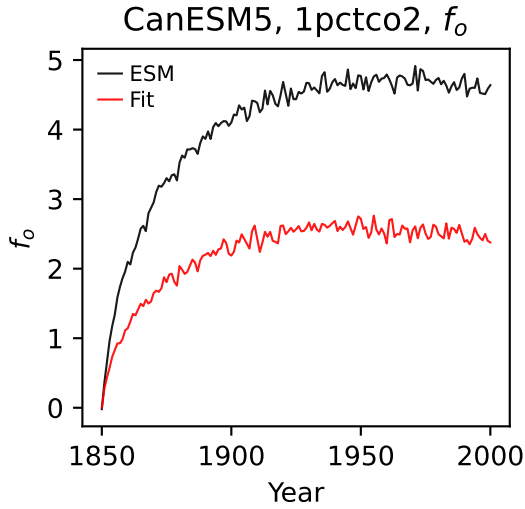

CanESM5, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
c_atm

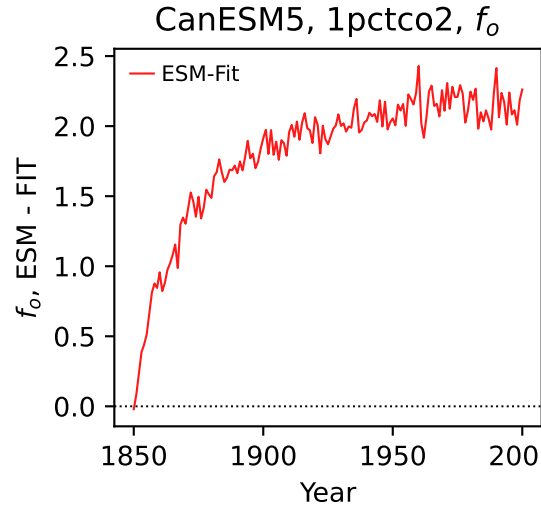

CanESM5, 1pctco2, npp, ln(MSE/SIGMA)
230, -0.2332,1702.4962, -0.1274, 0.0325, 0.1580, 0.9467, 0.8697, 0
CanESM5
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
23.8
23.0
22.2
21.4
20.6
19.8
19.0
18.2
17.4

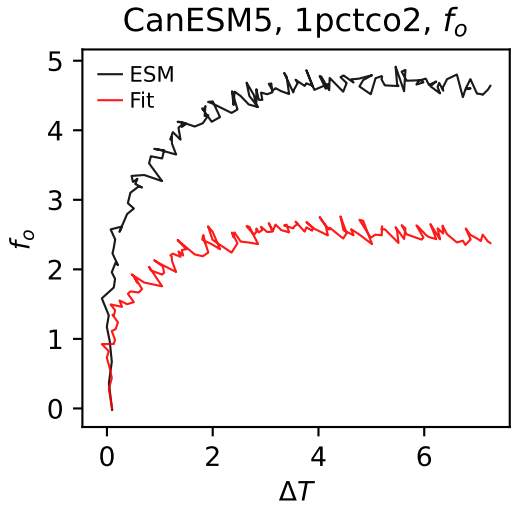

CanESM5, 1pctco2, npp, ln(MSE/SIGMA)
230, -0.2332,1702.4962, -0.1274, 0.0325, 0.1580, 0.9467, 0.8697, 0
CanESM
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
npp_c_l
22.05
21.60
21.15
20.70
20.25
19.80
19.35
18.90
18.45
18.00

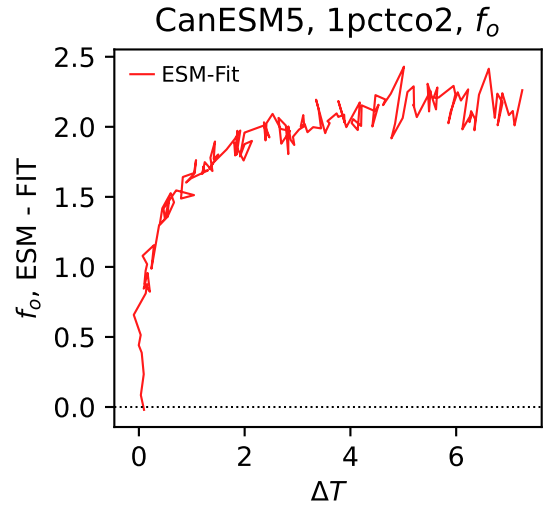

CanESM5, 1pctco2, npp, ln(MSE/SIGMA)
230, -0.2332,1702.4962, -0.1274, 0.0325, 0.1580, 0.9467, 0.8697, 0
CanESM5
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
23.4
22.8
22.2
21.6
21.0
20.4
19.8
19.2
18.6
18.0

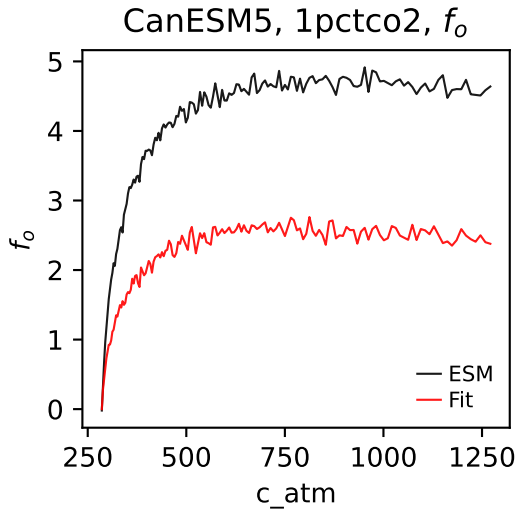

CanESM5, 1pctco2, npp, ln(MSE/SIGMA)
230, -0.2332,1702.4962, -0.1274, 0.0325, 0.1580, 0.9467, 0.8697, 0
CanESM5
npp_slow
npp_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
21.92
21.80
21.68
21.56
21.44
21.32
21.20
21.08
20.96
20.84

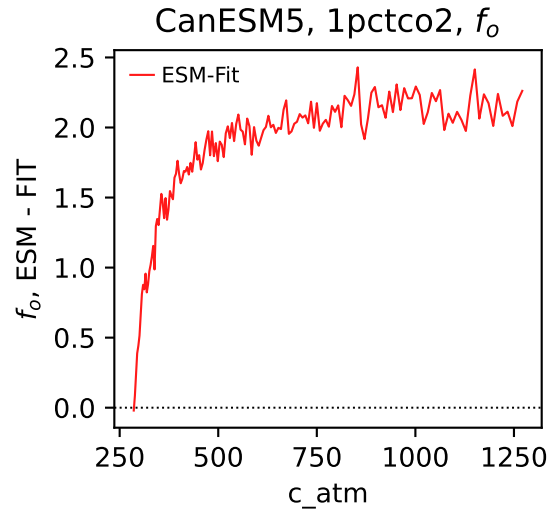

CanESM5, 1pctco2, f_o
ESM
Fit
f_o
Year

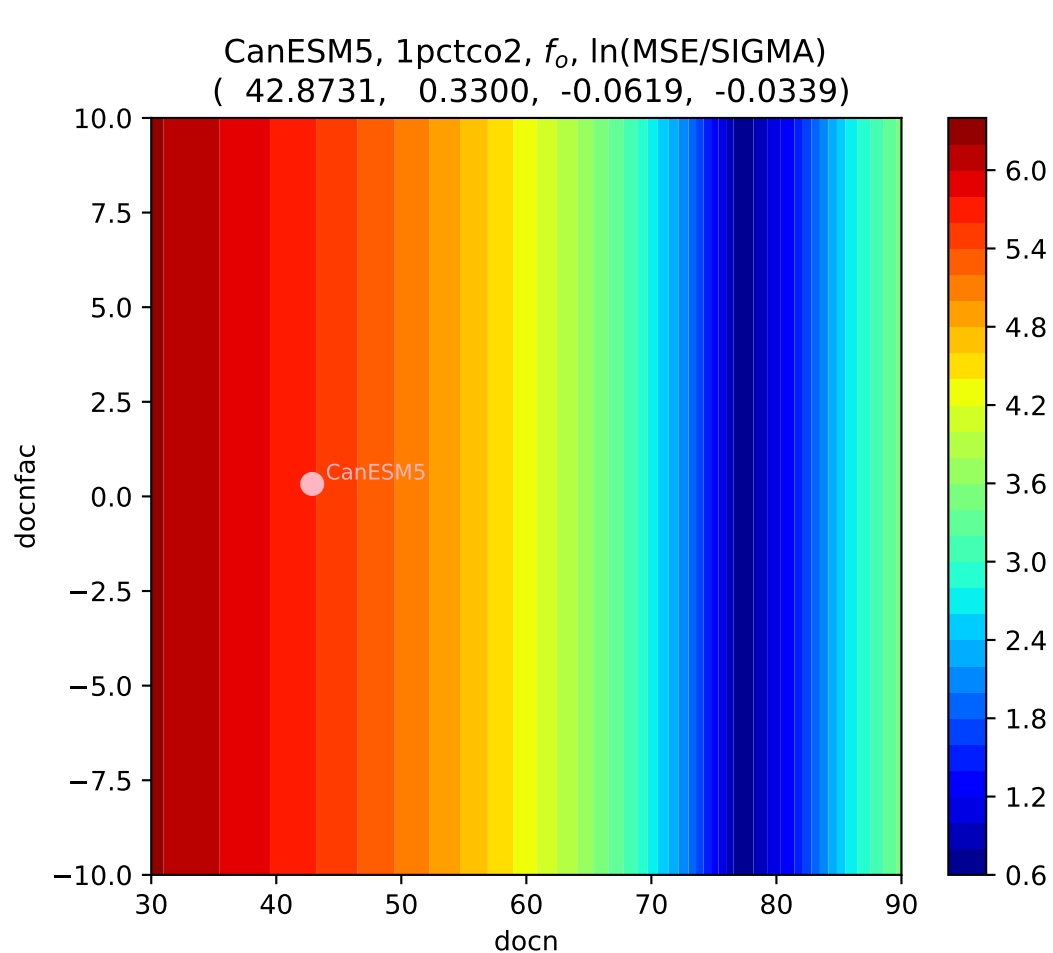

CanESM5, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
Year

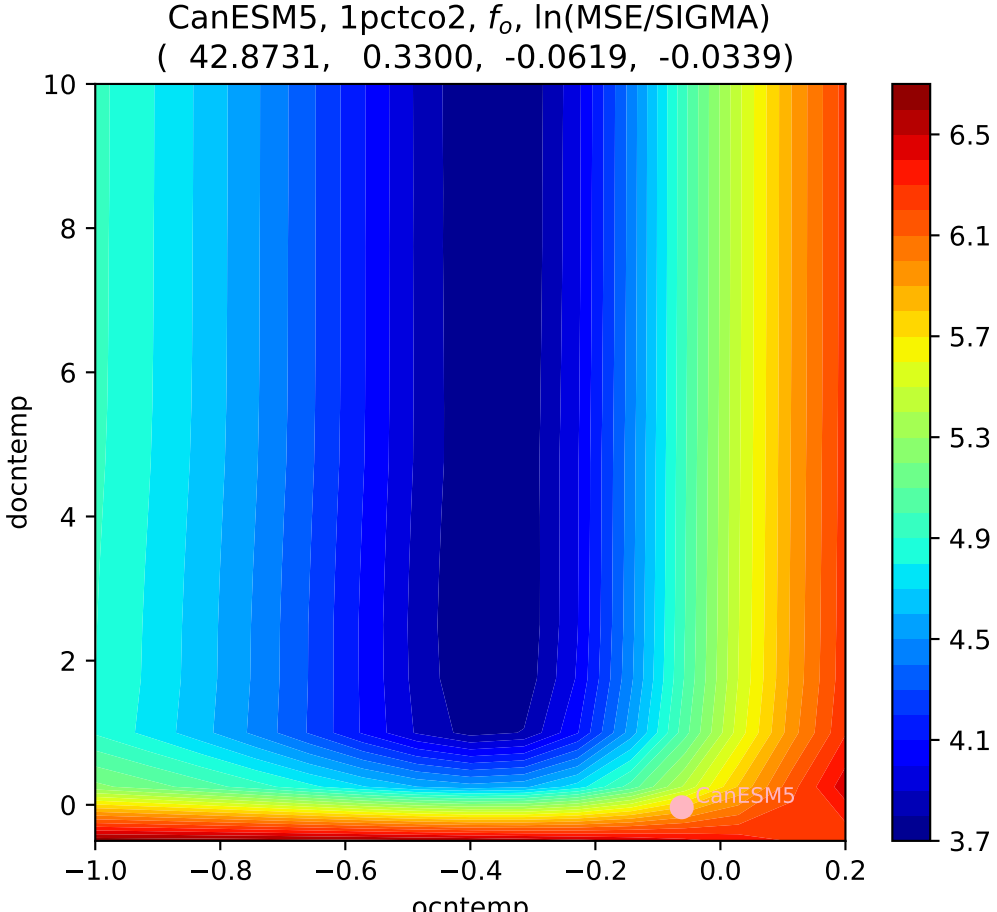

CanESM5, 1pctco2, f_o
ESM
Fit
f_o
ΔT


CanESM5, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
ΔT


CanESM5, 1pctco2, f_o
ESM
Fit
f_o
c_atm


CanESM5, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
c_atm


CanESM5, 1pctco2, f_o, ln(MSE/SIGMA)
(42.8731, 0.3300, -0.0619, -0.0339)
CanESM5
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
6.0
5.4
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6


CanESM5, 1pctco2, f_o, ln(MSE/SIGMA)
(42.8731, 0.3300, -0.0619, -0.0339)
10
8
6
4
2
0
docntemp
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
ocntemp
CanESM5
6.5
6.1
5.7
5.3
4.9
4.5
4.1
3.7