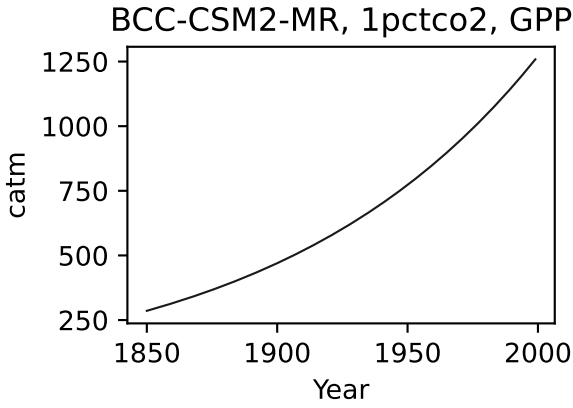
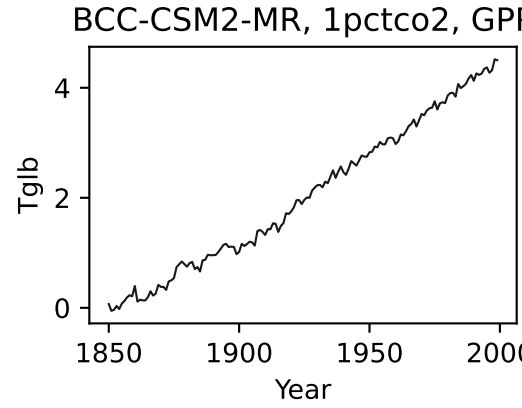
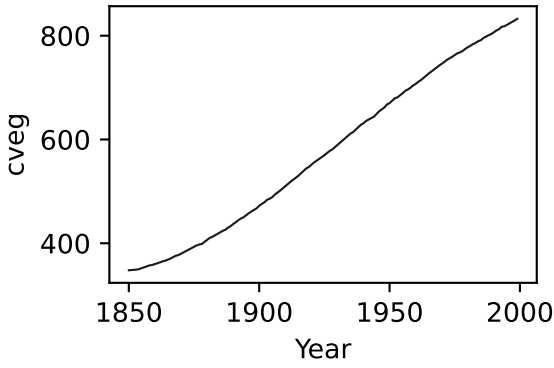
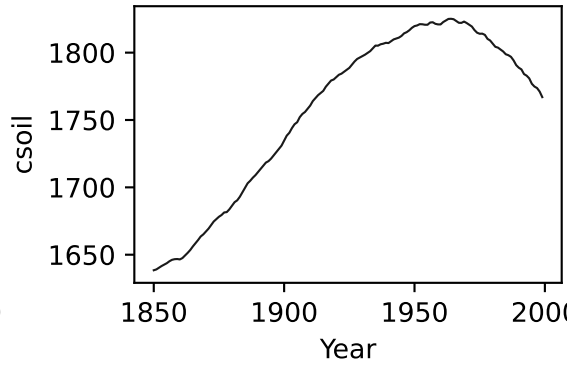
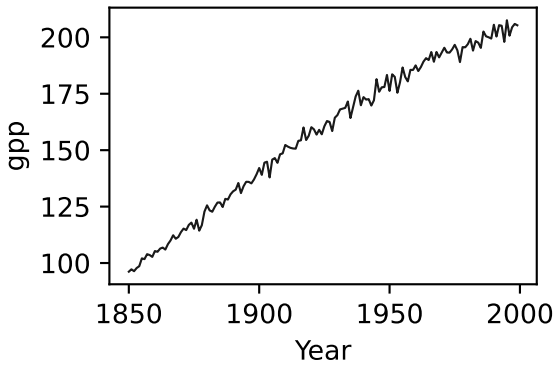
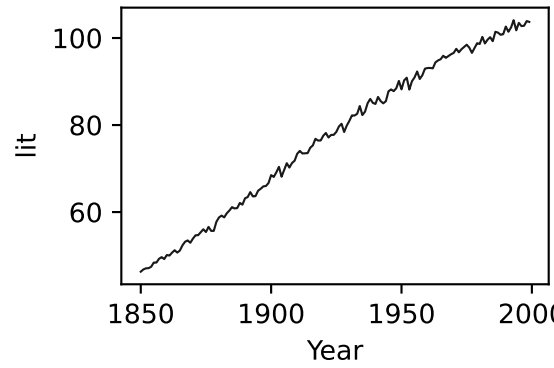

BCC-CSM2-MR, 1pctco2, GPP
catm
1250
1000
750
500
250
1850
1900
1950
2000
Year

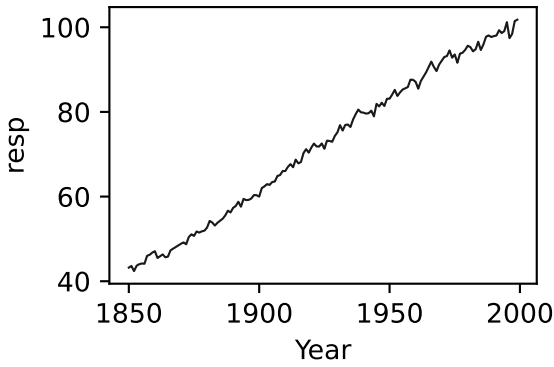

BCC-CSM2-MR, 1pctco2, GPP
Tglb
4
2
0
1850
1900
1950
2000
Year

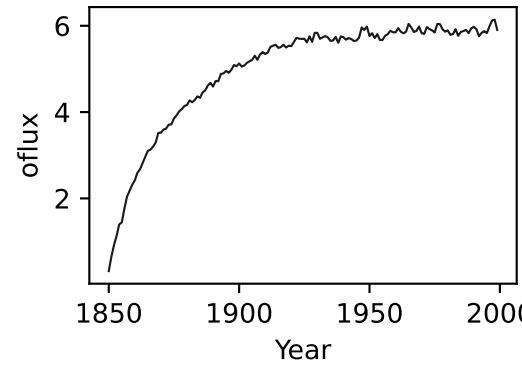

cveg
800
600
400
1850
1900
1950
2000
Year

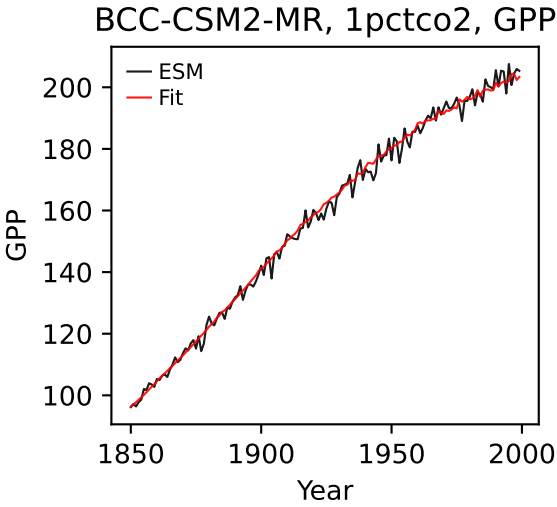

csoil
1800
1750
1700
1650
1850
1900
1950
2000
Year

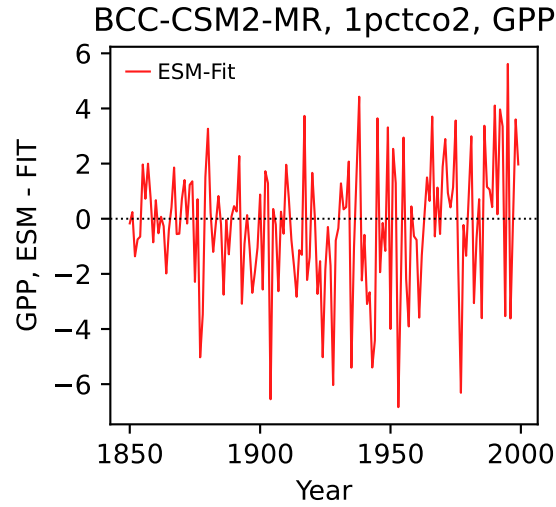

gpp
200
175
150
125
100
1850
1900
1950
2000
Year

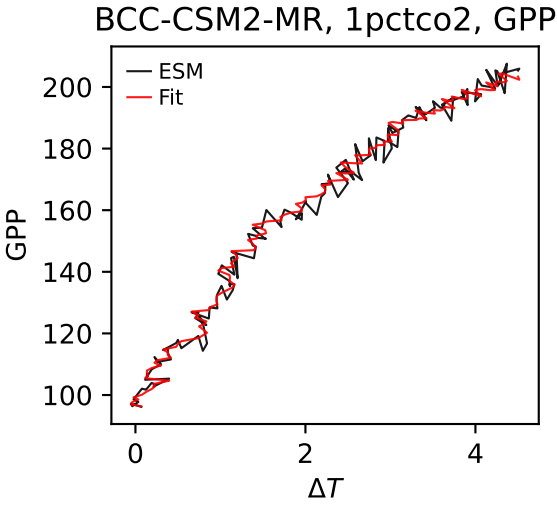

lit
100
80
60
1850
1900
1950
2000
Year

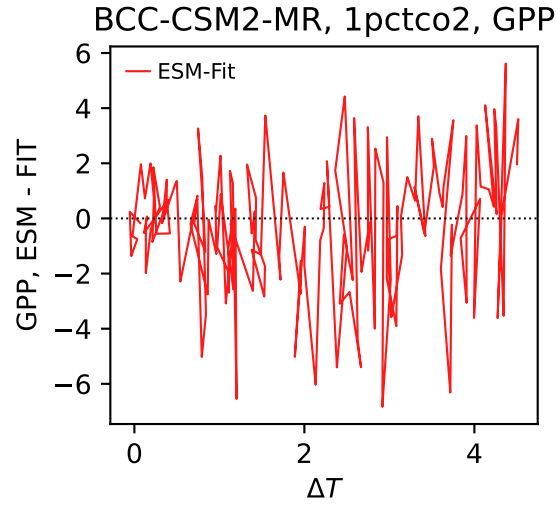

resp
100
80
60
40
1850
1900
1950
2000
Year

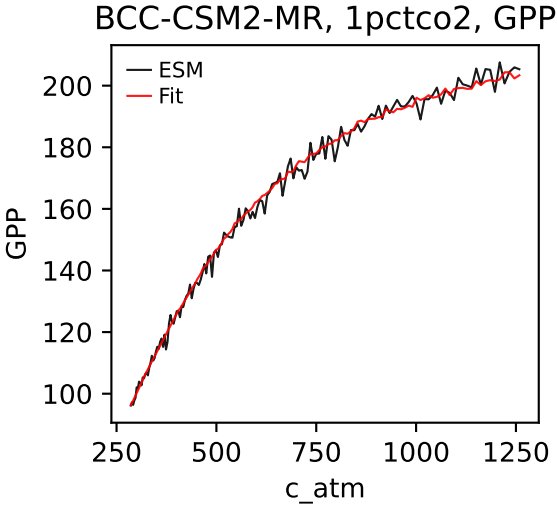

oflux
6
4
2
1850
1900
1950
2000
Year

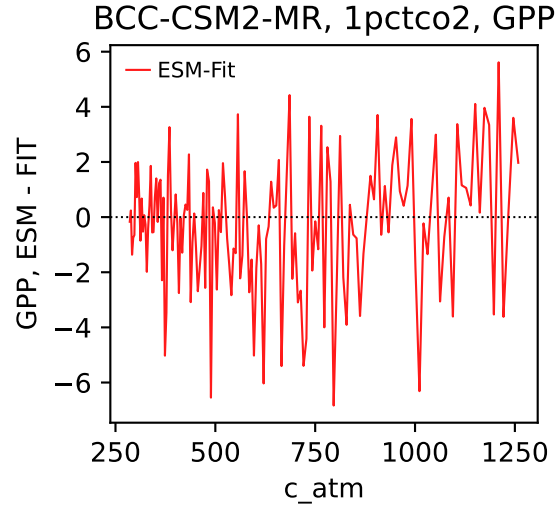

BCC-CSM2-MR, 1pctco2, GPP
ESM
Fit
GPP
Year

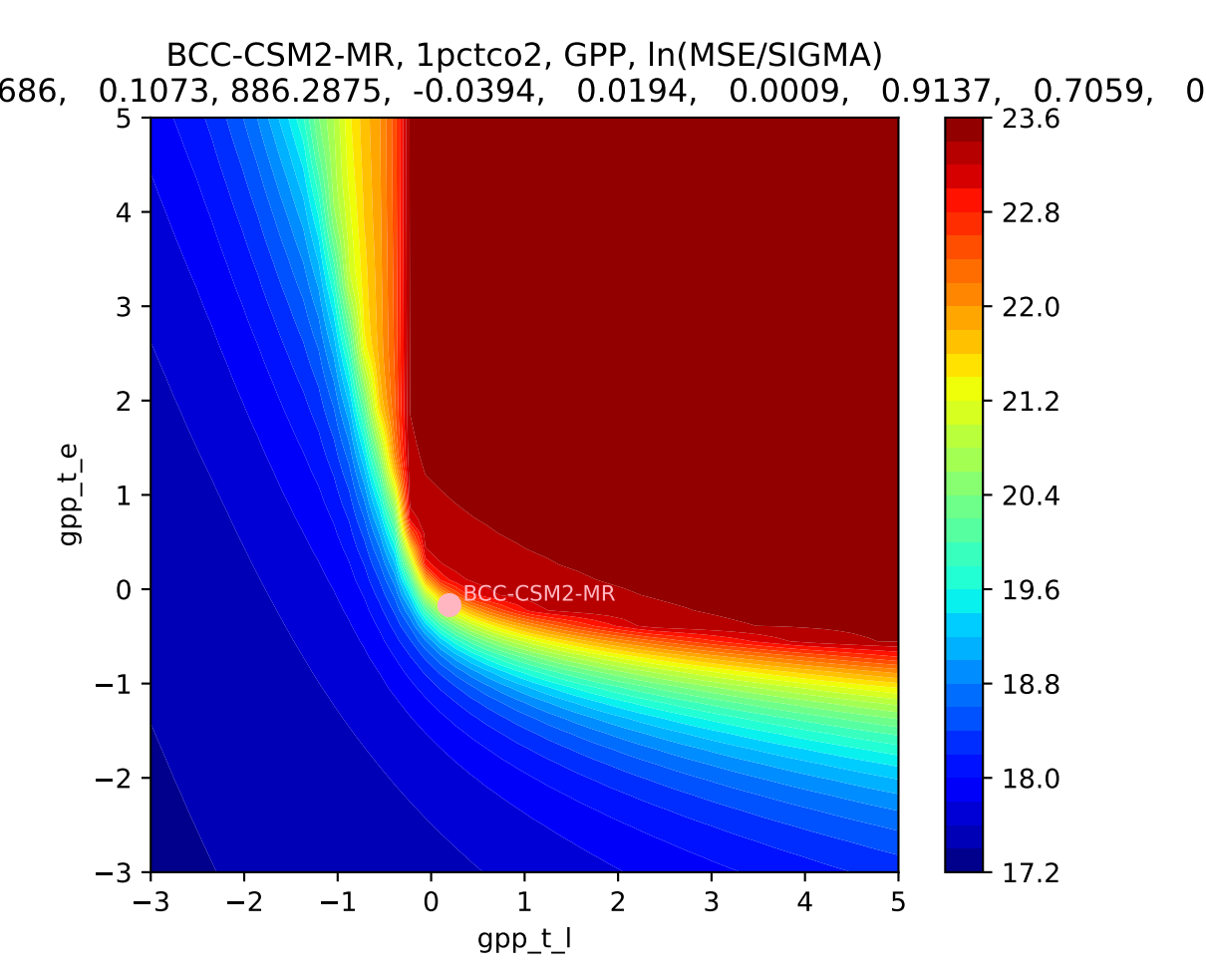

BCC-CSM2-MR, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
Year

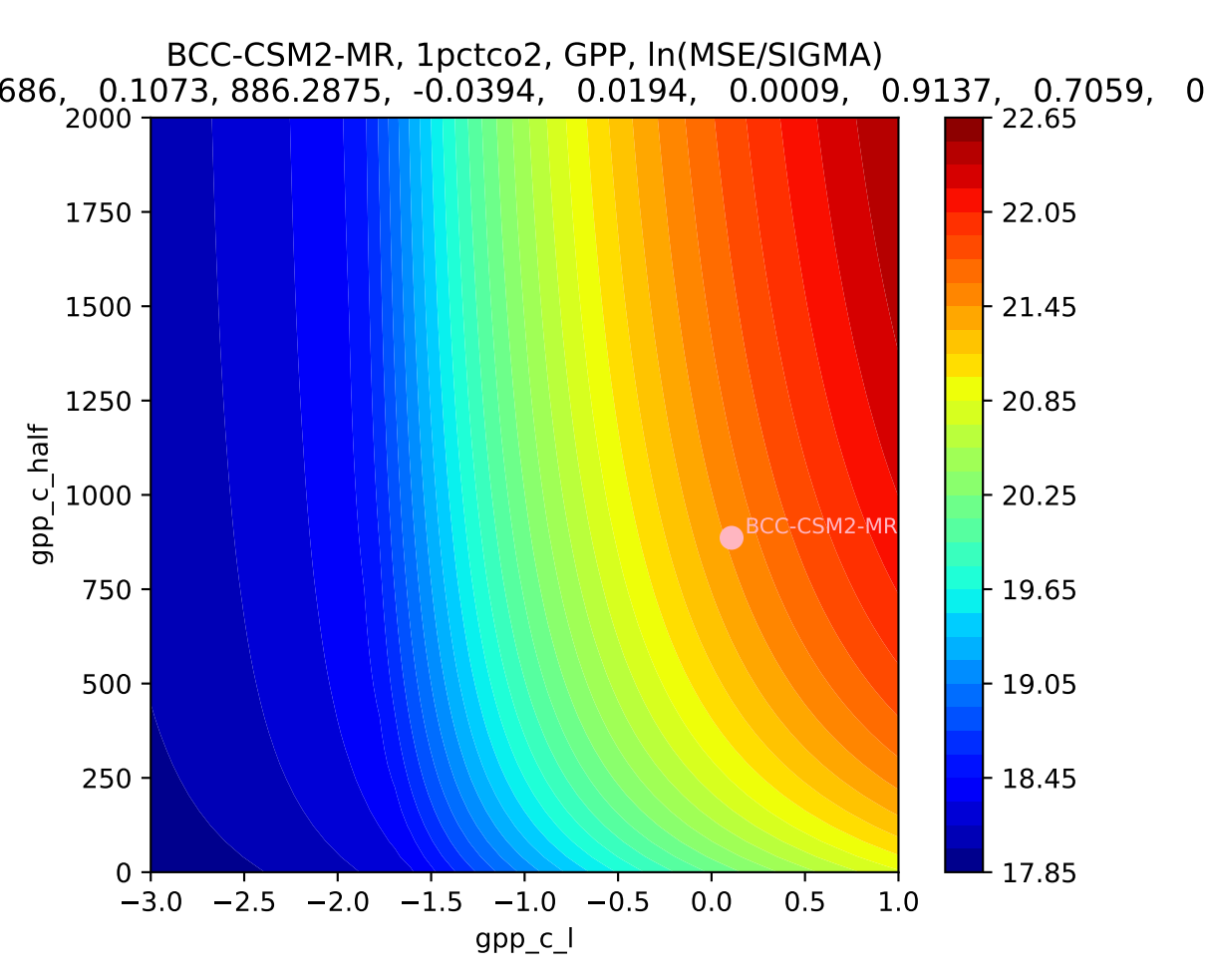

BCC-CSM2-MR, 1pctco2, GPP
ESM
Fit
GPP
ΔT

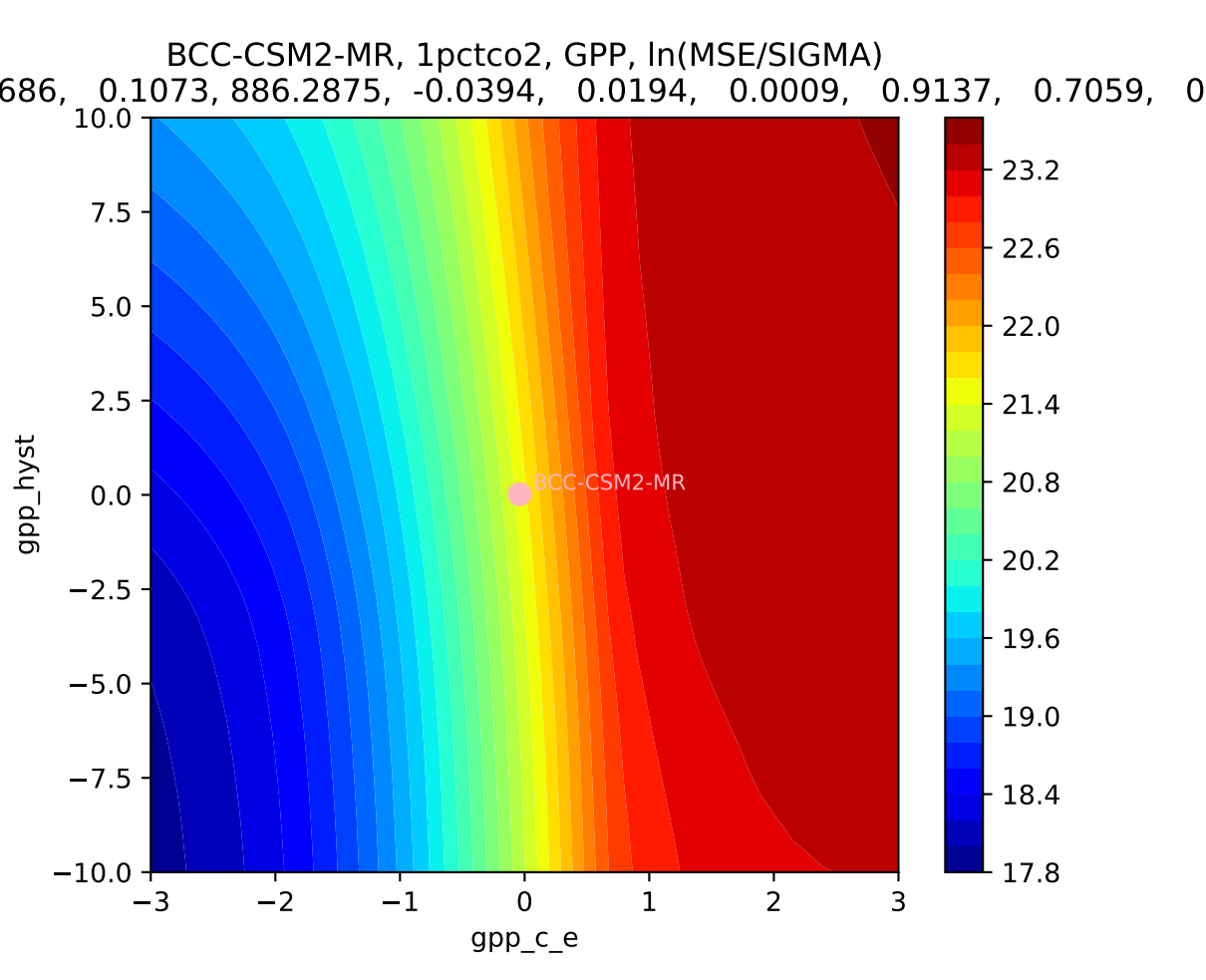

BCC-CSM2-MR, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
ΔT

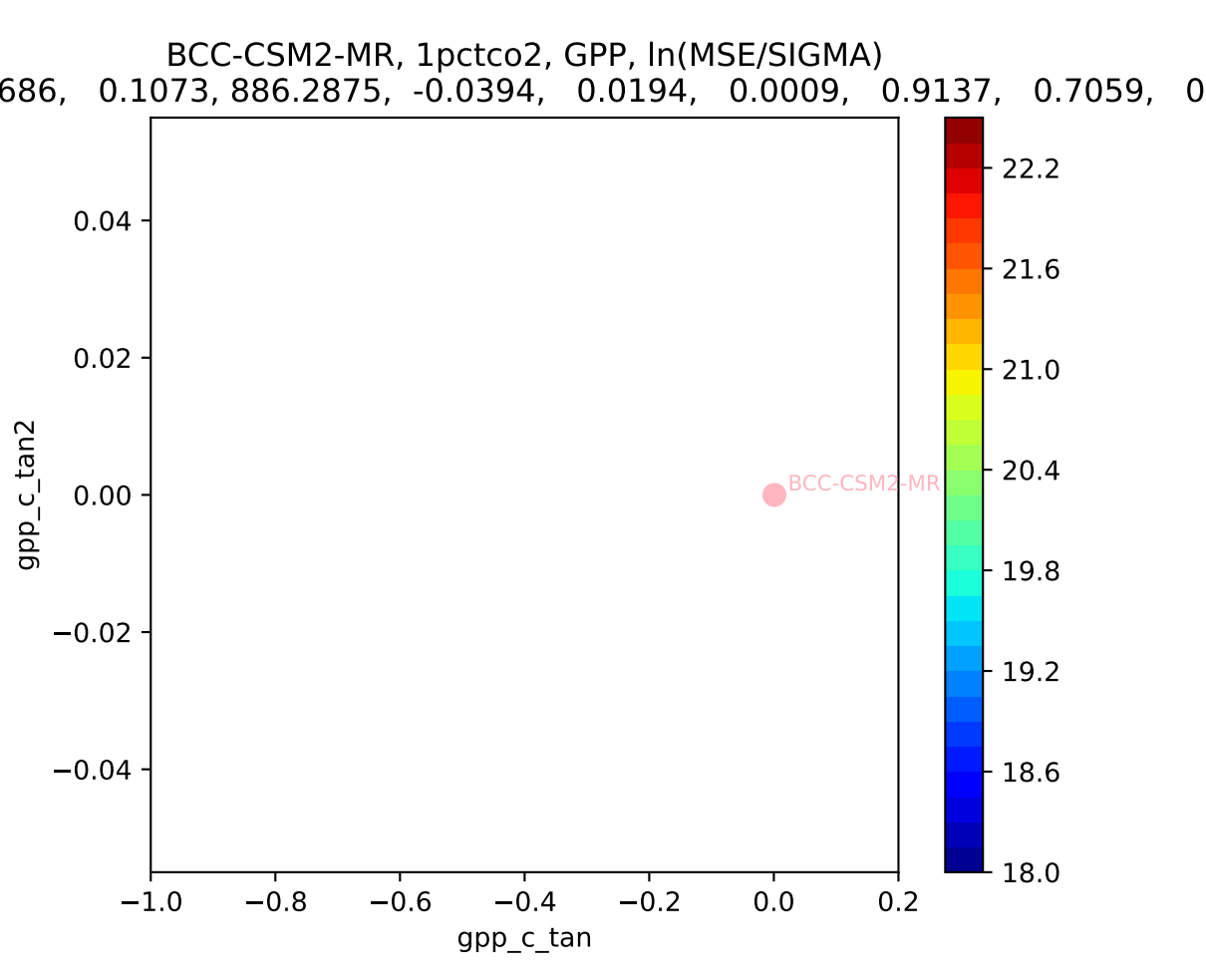

BCC-CSM2-MR, 1pctco2, GPP
ESM
Fit
GPP
c_atm

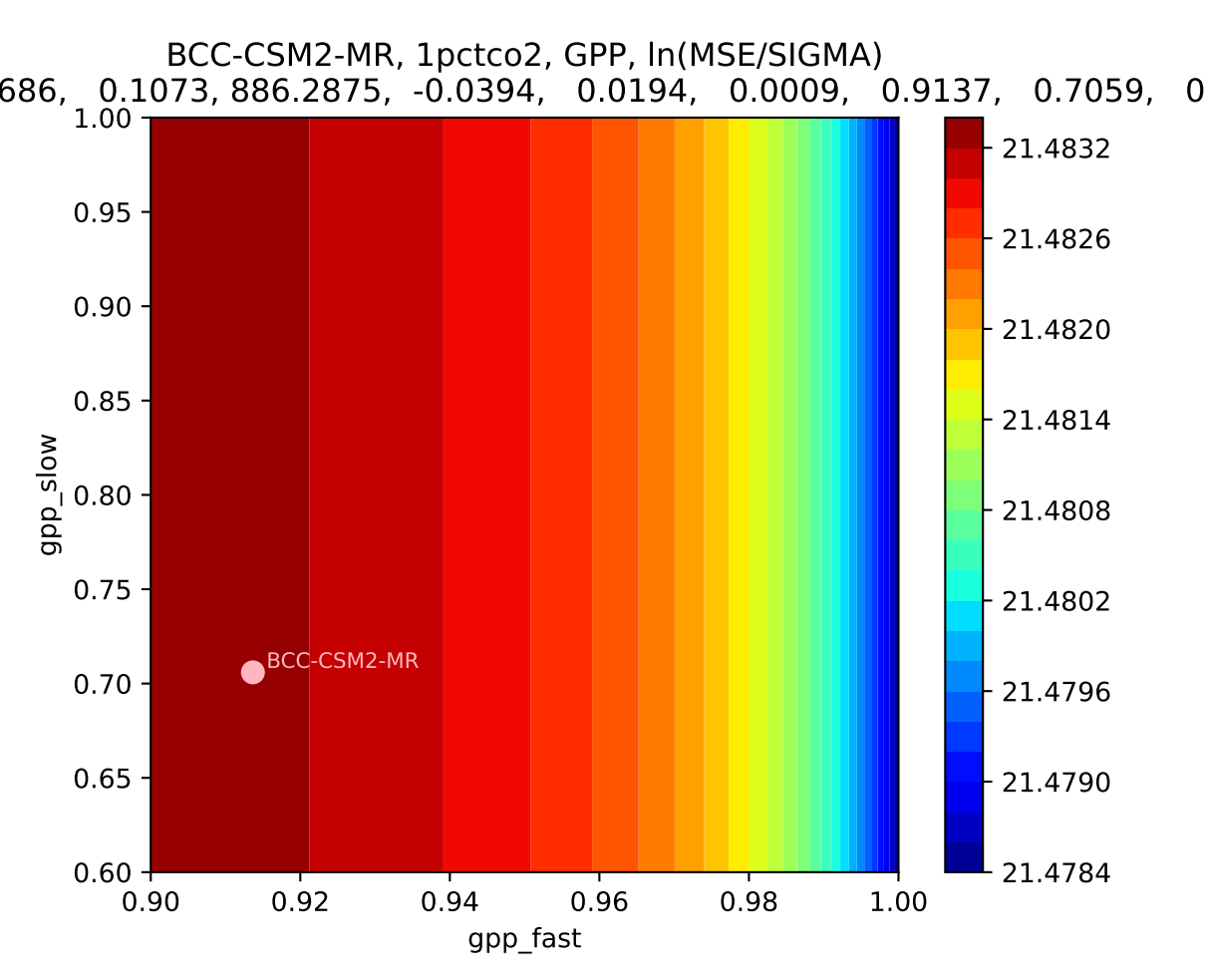

BCC-CSM2-MR, 1pctco2, GPP
ESM-Fit
GPP, ESM - FIT
c_atm

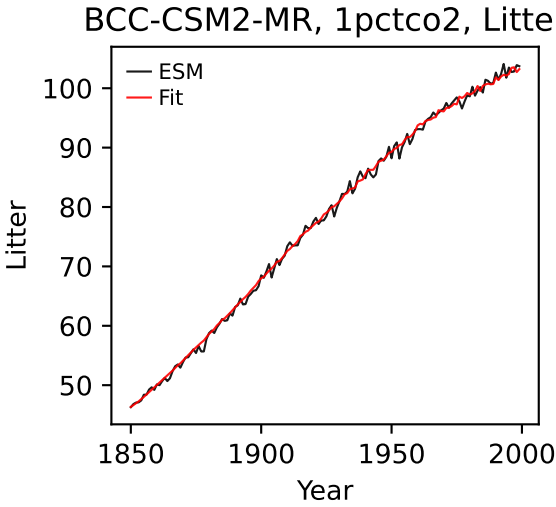

BCC-CSM2-MR, 1pctco2, GPP, ln(MSE/SIGMA)
686, 0.1073, 886.2875, -0.0394, 0.0194, 0.0009, 0.9137, 0.7059, 0
BCC-CSM2-MR
gpp_t_e
gpp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
23.6
22.8
22.0
21.2
20.4
19.6
18.8
18.0
17.2

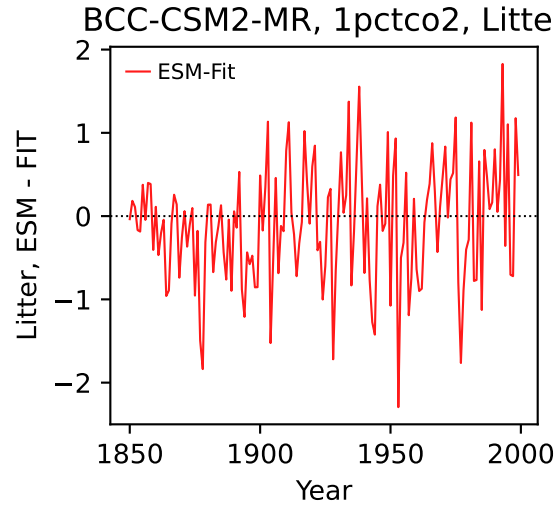

BCC-CSM2-MR, 1pctco2, GPP, ln(MSE/SIGMA)
686, 0.1073, 886.2875, -0.0394, 0.0194, 0.0009, 0.9137, 0.7059, 0
gpp_c_half
gpp_c_l
BCC-CSM2-MR
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
22.65
22.05
21.45
20.85
20.25
19.65
19.05
18.45
17.85

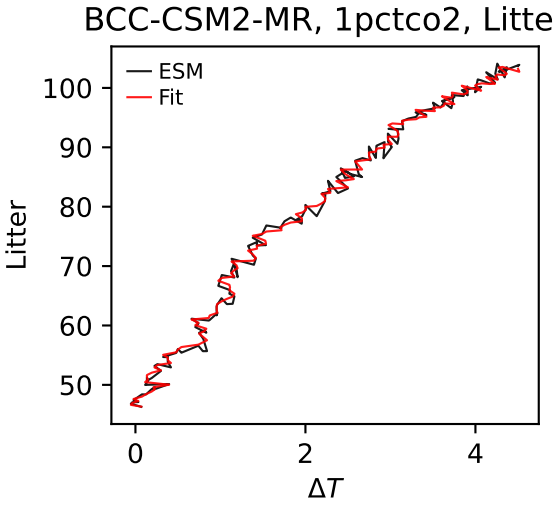

BCC-CSM2-MR, 1pctco2, GPP, ln(MSE/SIGMA)
686, 0.1073, 886.2875, -0.0394, 0.0194, 0.0009, 0.9137, 0.7059, 0
BCC-CSM2-MR
gpp_hyst
gpp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
23.2
22.6
22.0
21.4
20.8
20.2
19.6
19.0
18.4
17.8

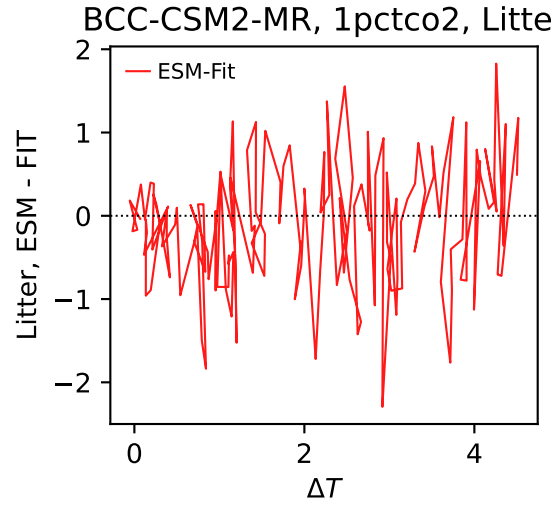

BCC-CSM2-MR, 1pctco2, GPP, ln(MSE/SIGMA)
686, 0.1073, 886.2875, -0.0394, 0.0194, 0.0009, 0.9137, 0.7059, 0
BCC-CSM2-MR
gpp_c_tan2
gpp_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
22.2
21.6
21.0
20.4
19.8
19.2
18.6
18.0

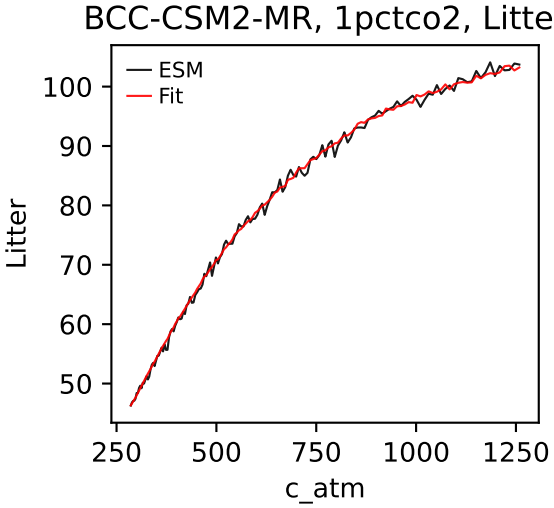

BCC-CSM2-MR, 1pctco2, GPP, ln(MSE/SIGMA)
686, 0.1073, 886.2875, -0.0394, 0.0194, 0.0009, 0.9137, 0.7059, 0
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
gpp_slow
BCC-CSM2-MR
0.90
0.92
0.94
0.96
0.98
1.00
gpp_fast
21.4832
21.4826
21.4820
21.4814
21.4808
21.4802
21.4796
21.4790
21.4784

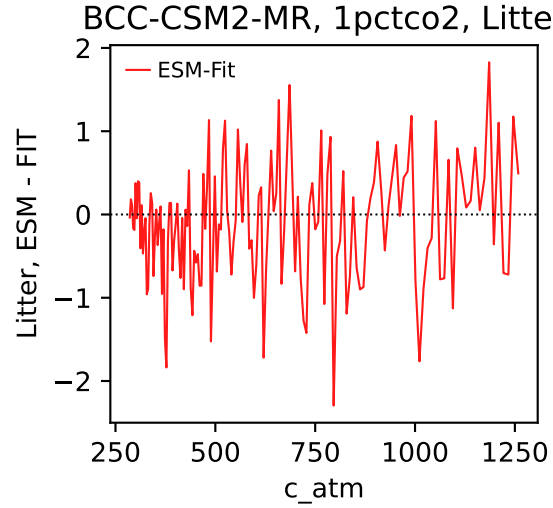

BCC-CSM2-MR, 1pctco2, Litter
ESM
Fit
Litter
Year

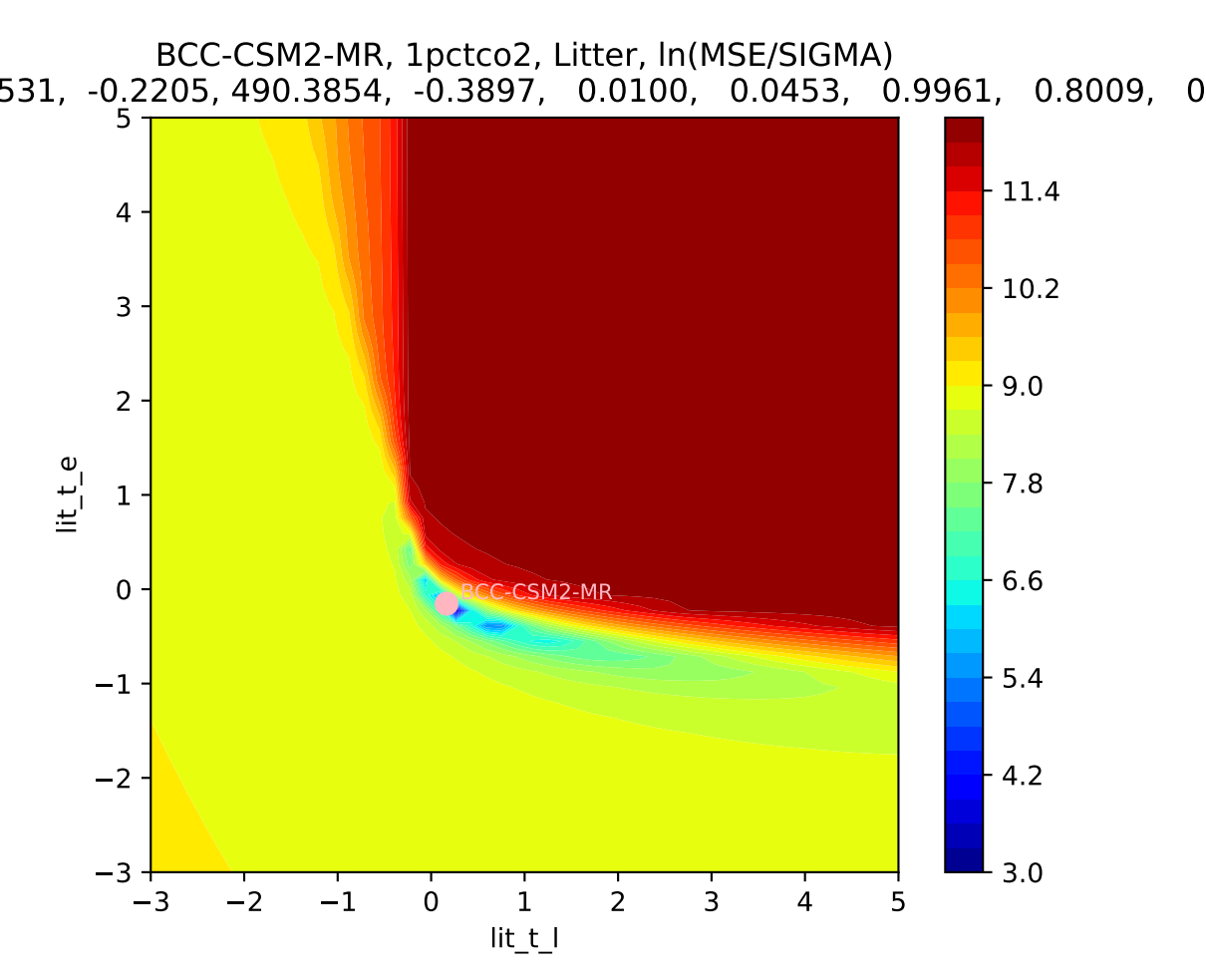

BCC-CSM2-MR, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
Year

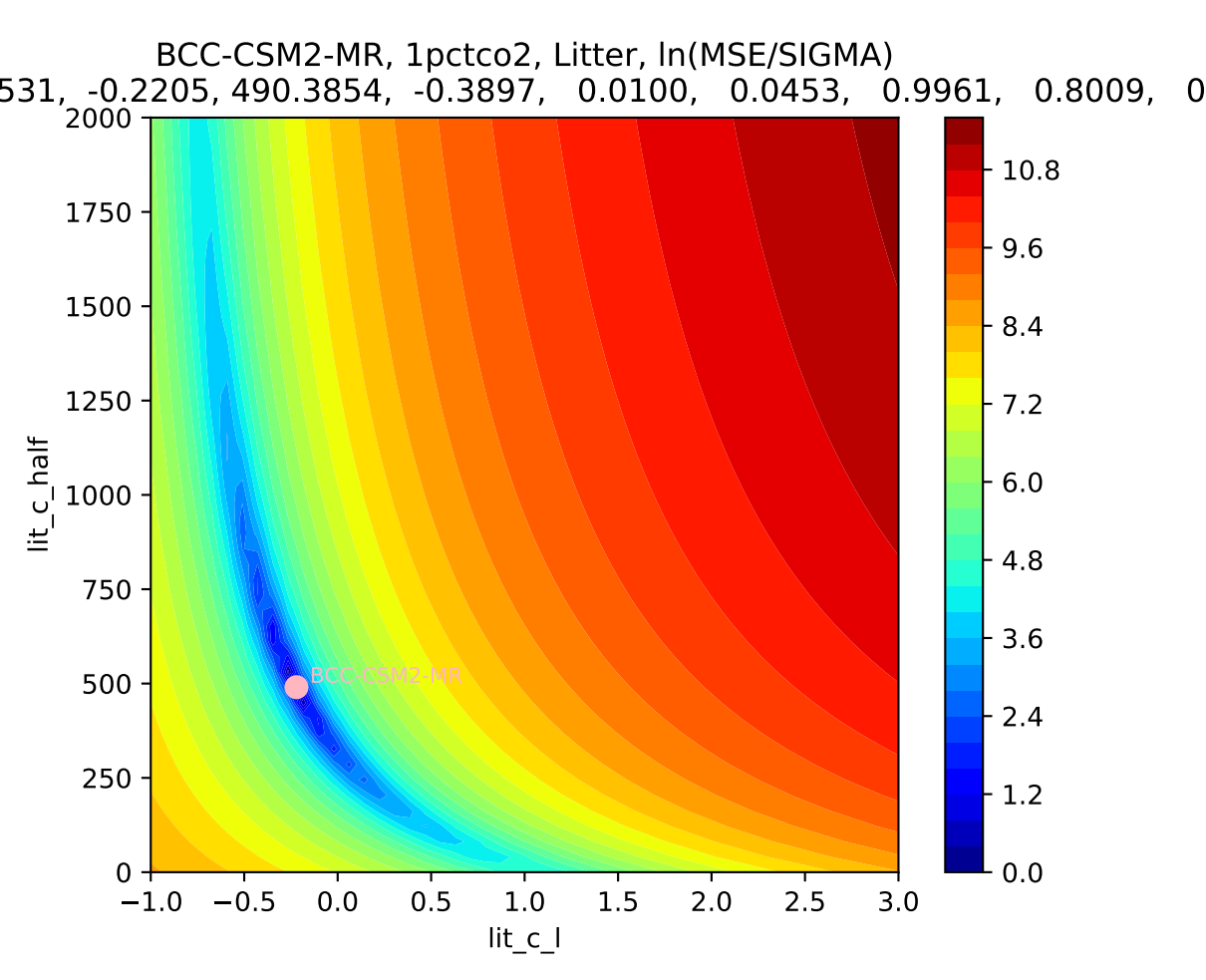

BCC-CSM2-MR, 1pctco2, Litter
ESM
Fit
Litter
ΔT

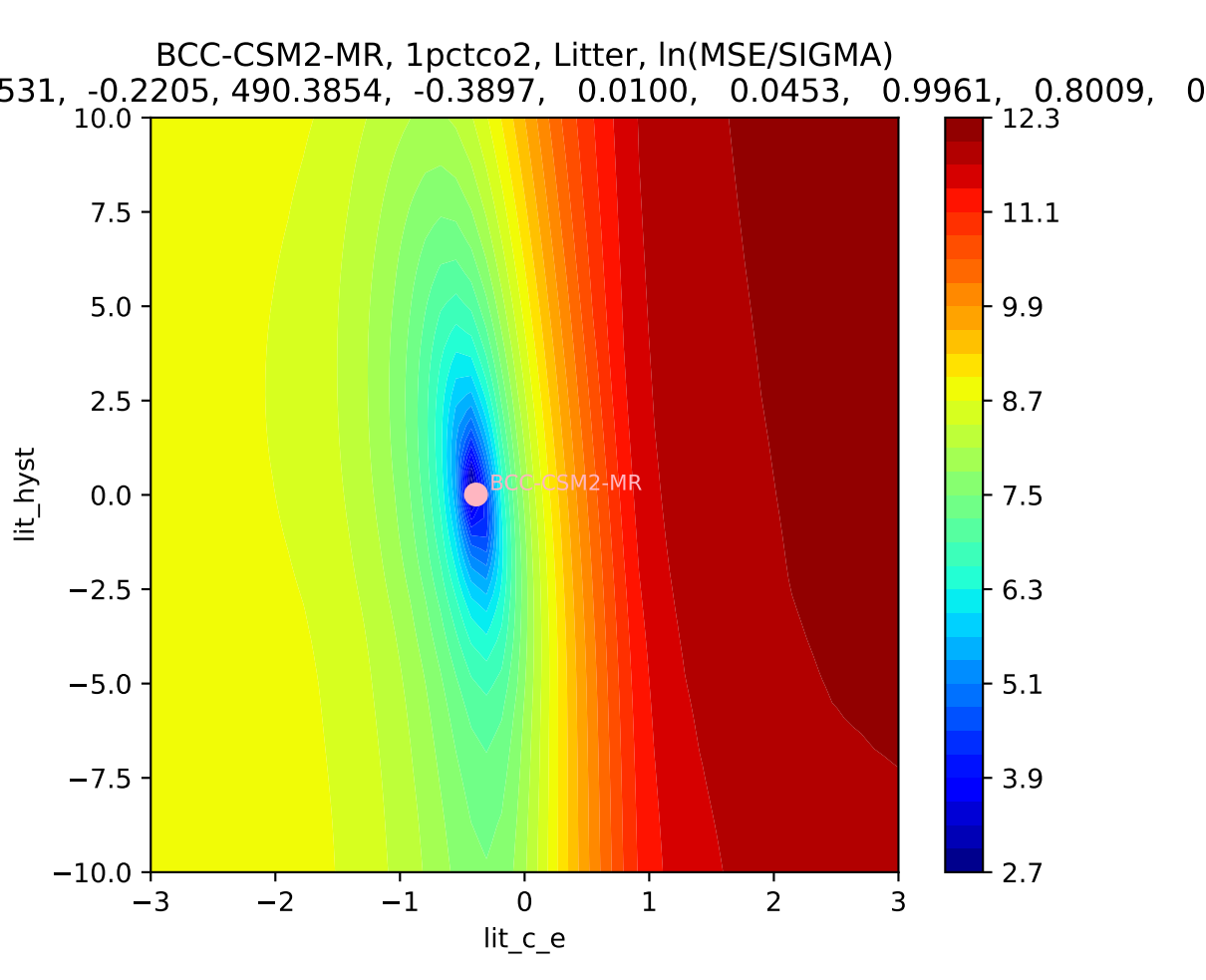

BCC-CSM2-MR, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

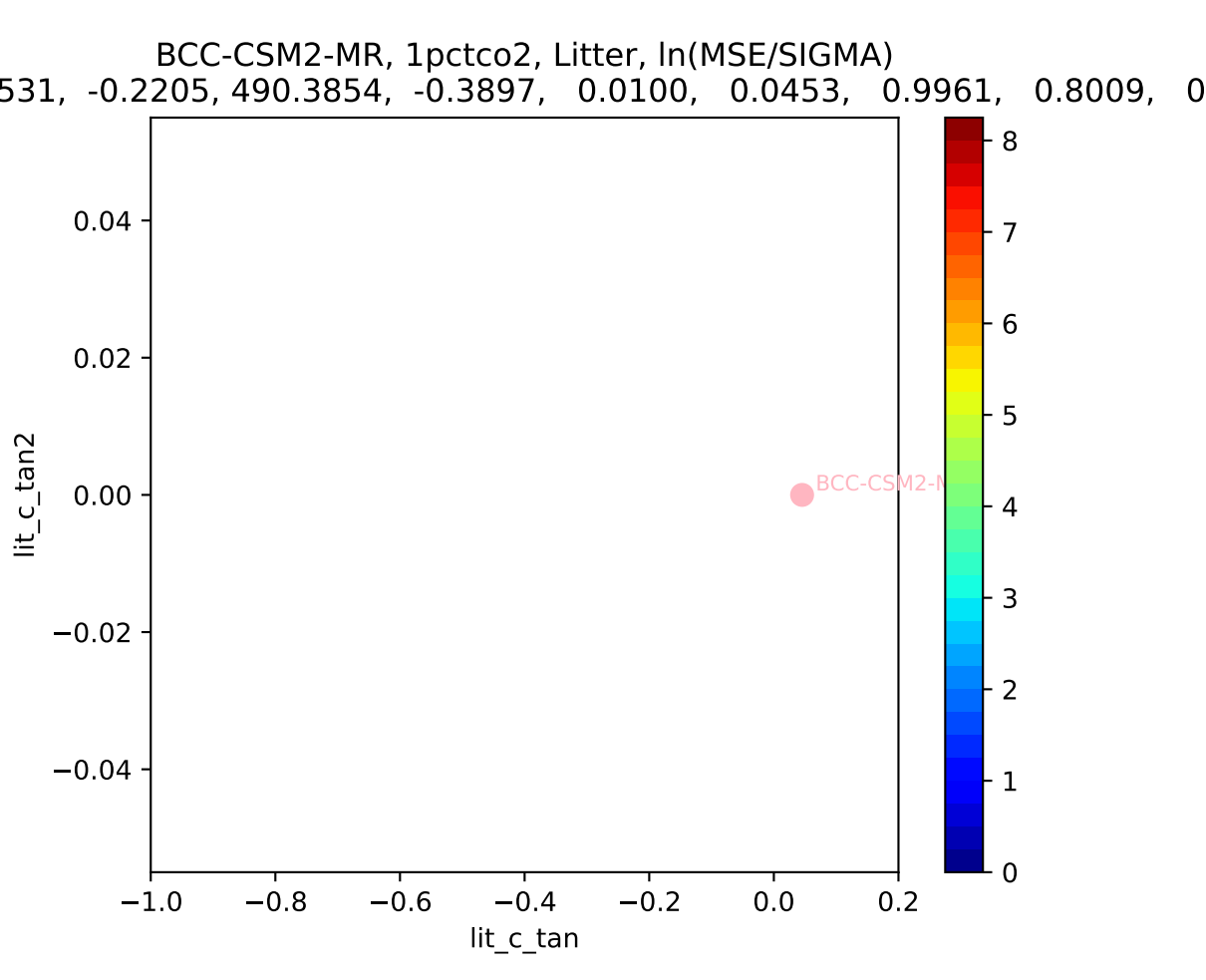

BCC-CSM2-MR, 1pctco2, Litter
ESM
Fit
Litter
c_atm

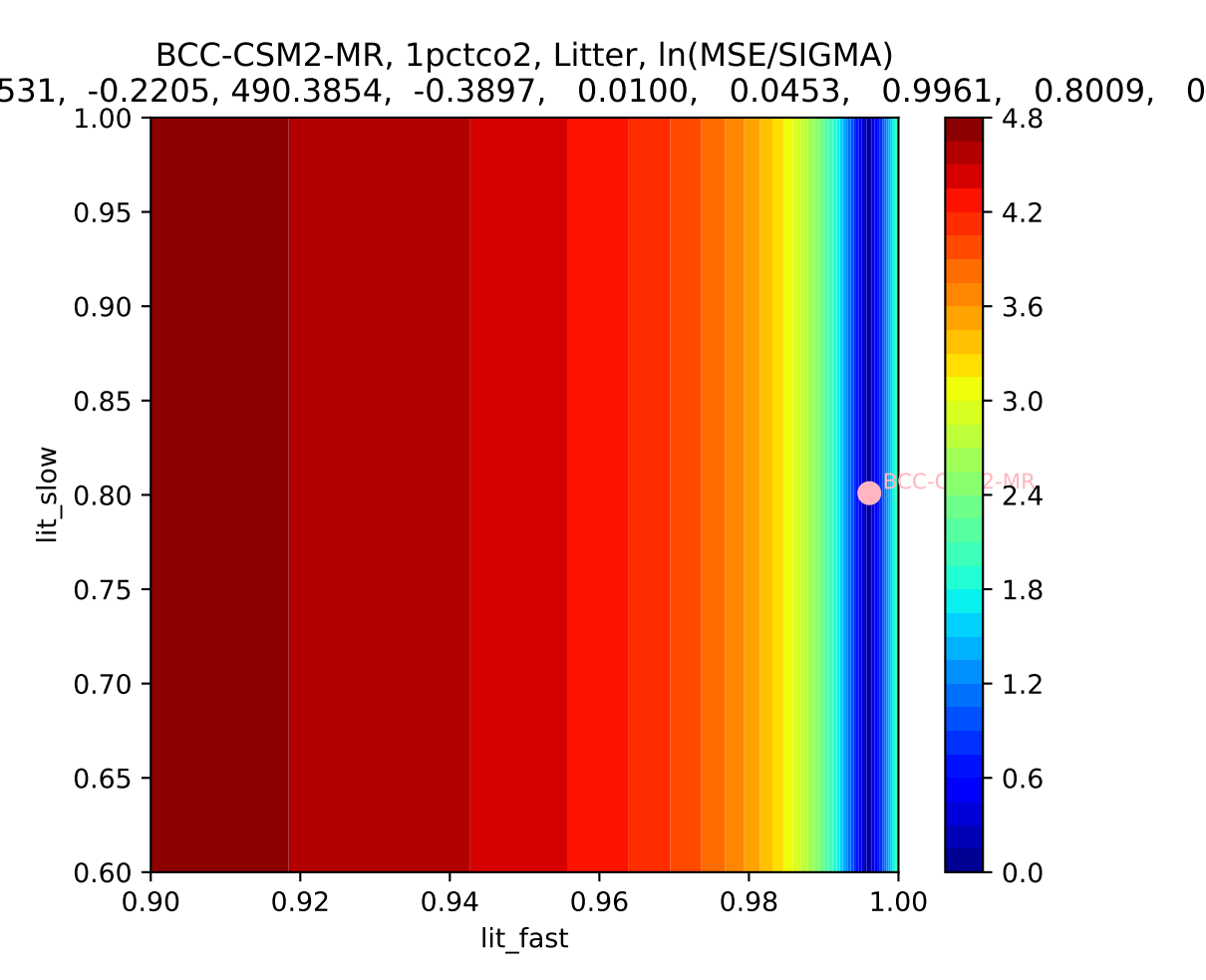

BCC-CSM2-MR, 1pctco2, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

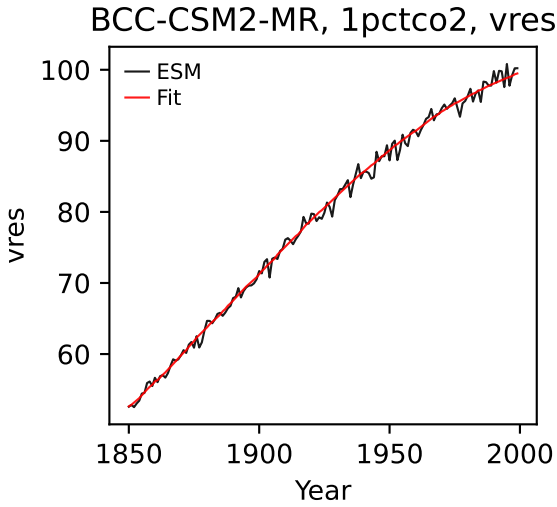

BCC-CSM2-MR, 1pctco2, Litter, ln(MSE/SIGMA)
531, -0.2205, 490.3854, -0.3897, 0.0100, 0.0453, 0.9961, 0.8009, 0
BCC-CSM2-MR
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
11.4
10.2
9.0
7.8
6.6
5.4
4.2
3.0

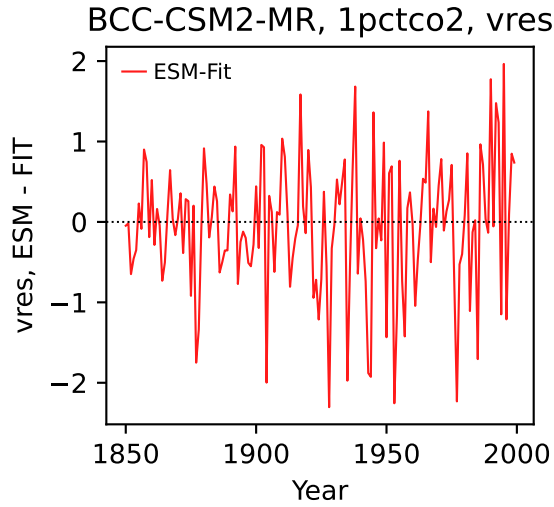

BCC-CSM2-MR, 1pctco2, Litter, ln(MSE/SIGMA)
531, -0.2205, 490.3854, -0.3897, 0.0100, 0.0453, 0.9961, 0.8009, 0
lit_c_half
lit_c_l
BCC-CSM2-MR
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
10.8
9.6
8.4
7.2
6.0
4.8
3.6
2.4
1.2
0.0

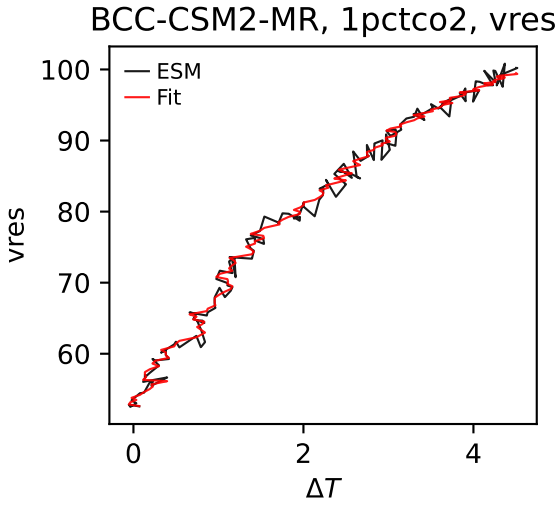

BCC-CSM2-MR, 1pctco2, Litter, ln(MSE/SIGMA)
531, -0.2205, 490.3854, -0.3897, 0.0100, 0.0453, 0.9961, 0.8009, 0
BCC-CSM2-MR
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
12.3
11.1
9.9
8.7
7.5
6.3
5.1
3.9
2.7

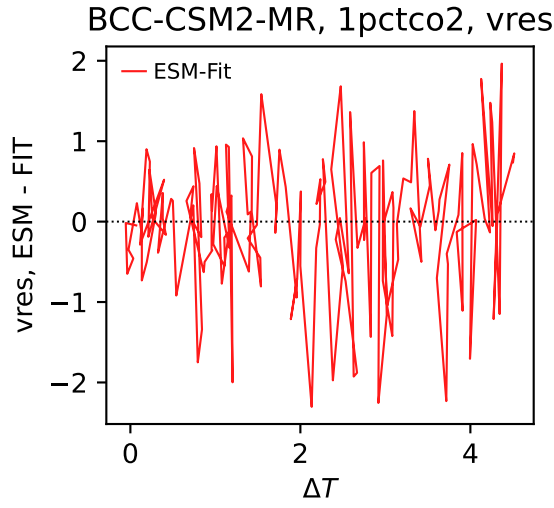

BCC-CSM2-MR, 1pctco2, Litter, ln(MSE/SIGMA)
531, -0.2205, 490.3854, -0.3897, 0.0100, 0.0453, 0.9961, 0.8009, 0
lit_c_tan2
lit_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
8
7
6
5
4
3
2
1
0

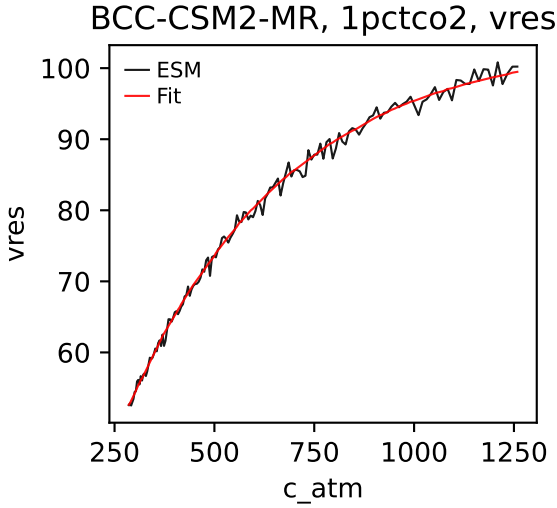

BCC-CSM2-MR, 1pctco2, Litter, ln(MSE/SIGMA)
531, -0.2205, 490.3854, -0.3897, 0.0100, 0.0453, 0.9961, 0.8009, 0
lit_slow
lit_fast
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.90
0.92
0.94
0.96
0.98
1.00
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6
0.0

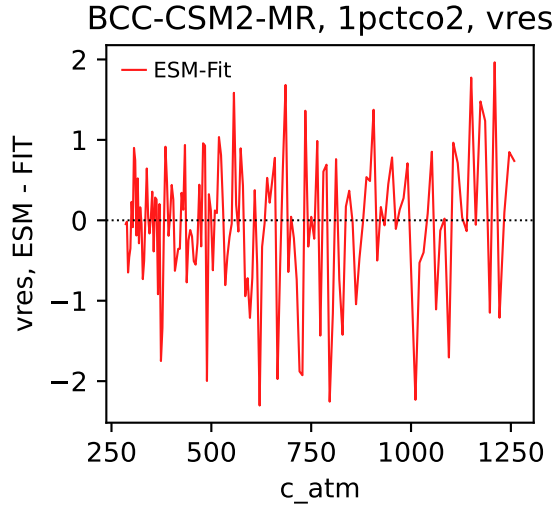

BCC-CSM2-MR, 1pctco2, vres
ESM
Fit
vres
Year

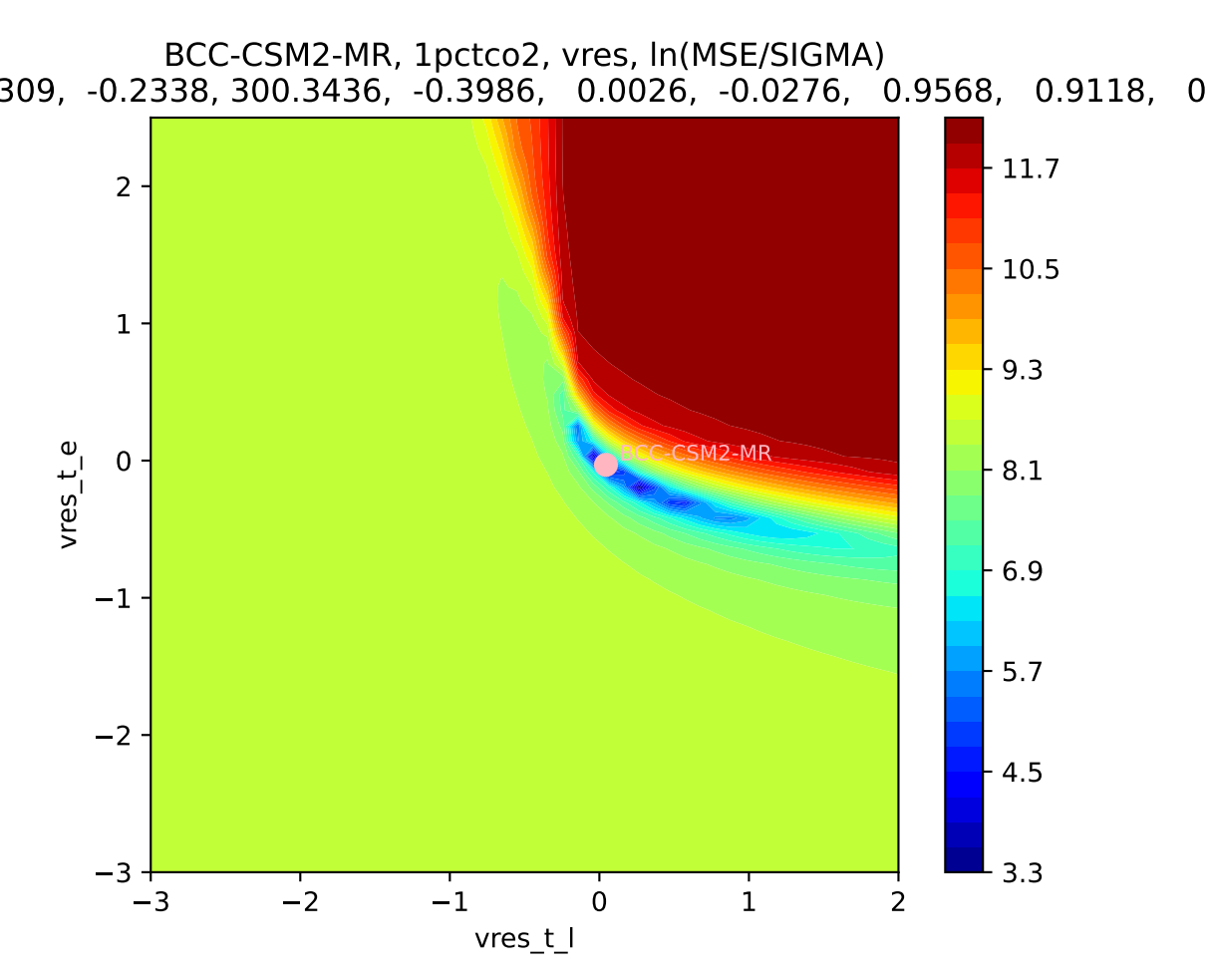

BCC-CSM2-MR, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
Year

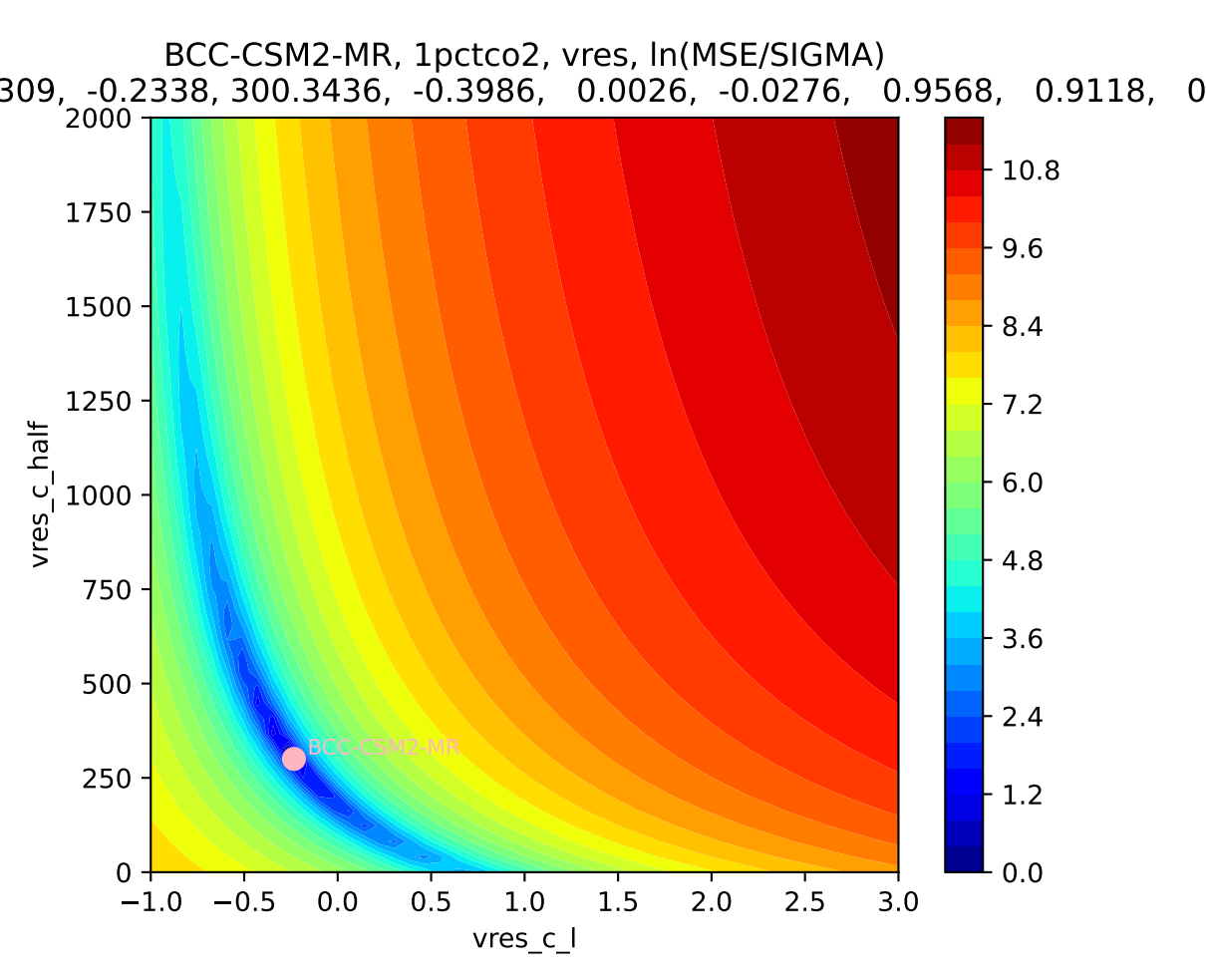

BCC-CSM2-MR, 1pctco2, vres
ESM
Fit
vres
ΔT

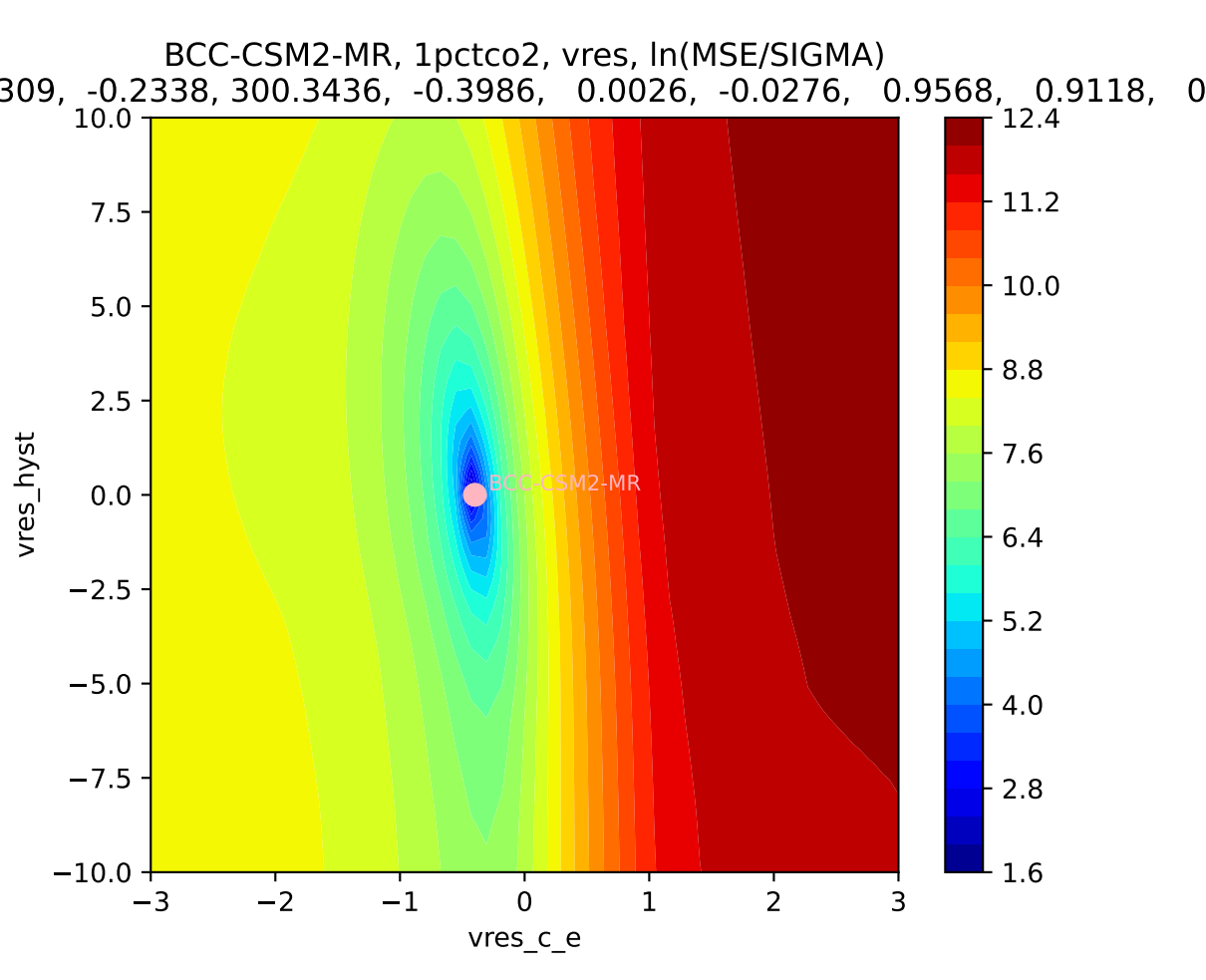

BCC-CSM2-MR, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
ΔT

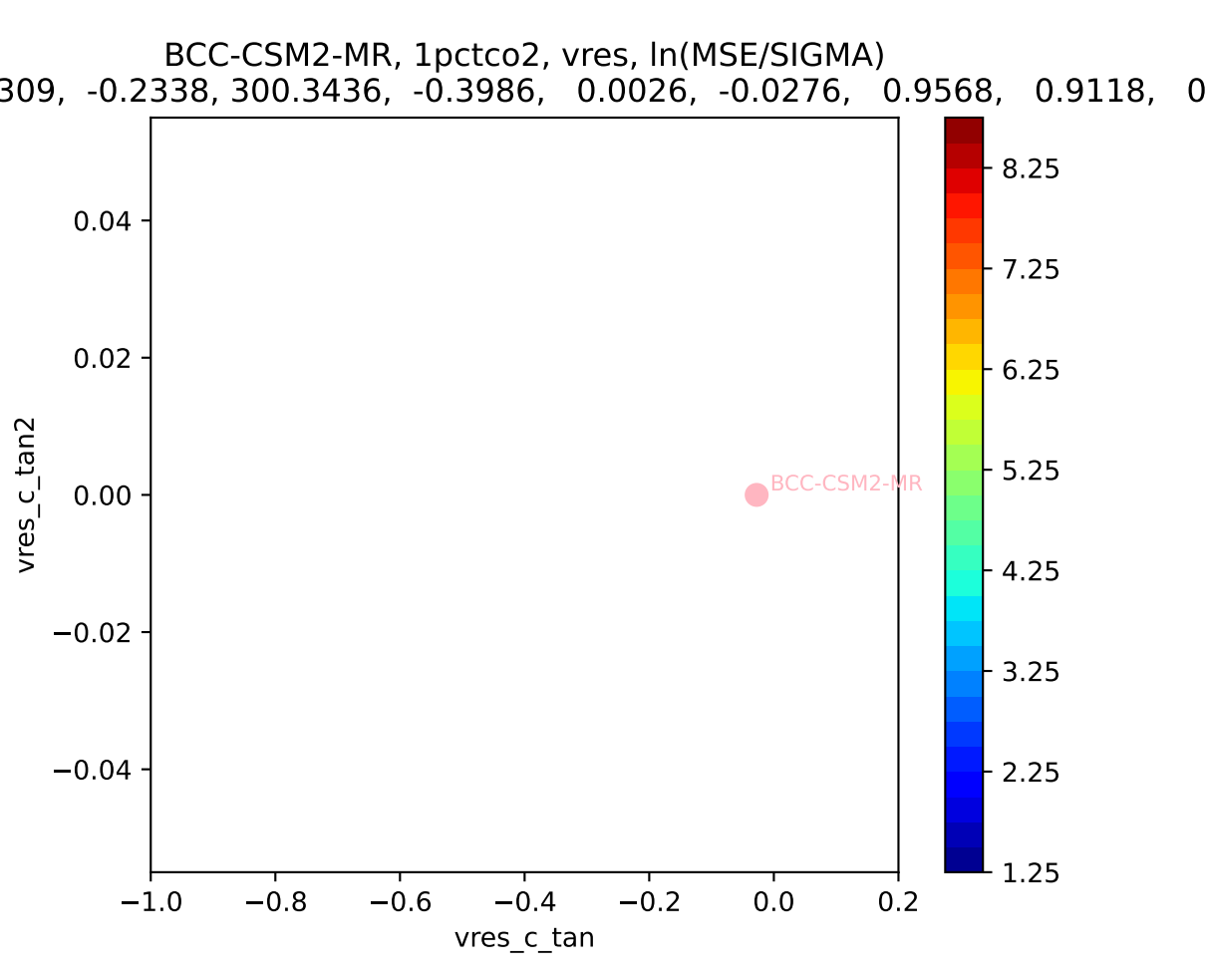

BCC-CSM2-MR, 1pctco2, vres
ESM
Fit
vres
c_atm

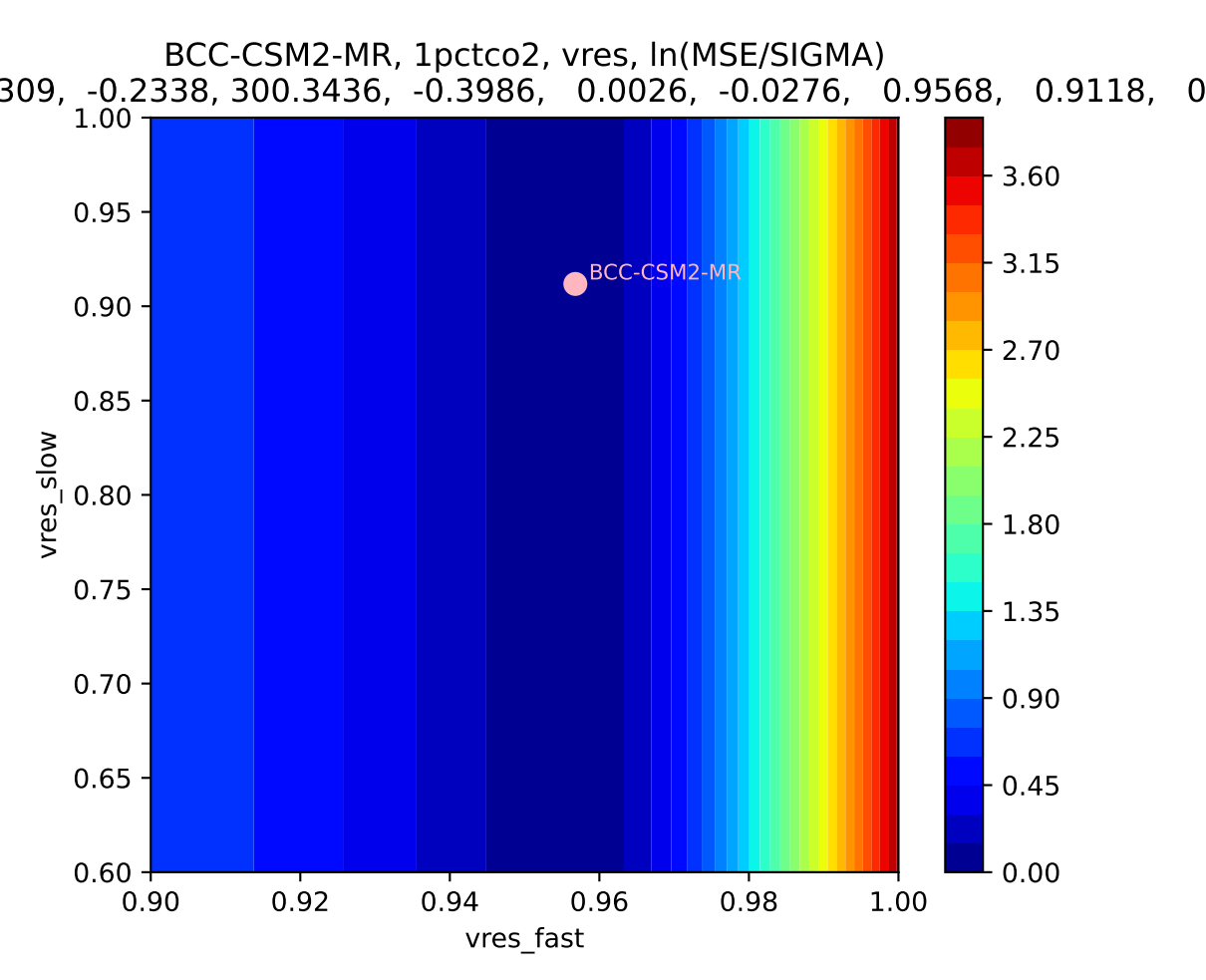

BCC-CSM2-MR, 1pctco2, vres
ESM-Fit
vres, ESM - FIT
c_atm

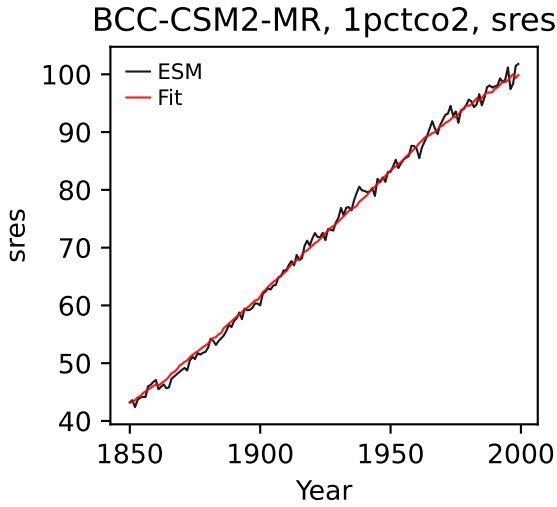

BCC-CSM2-MR, 1pctco2, vres, ln(MSE/SIGMA)
309, -0.2338, 300.3436, -0.3986, 0.0026, -0.0276, 0.9568, 0.9118, 0
BCC-CSM2-MR
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
11.7
10.5
9.3
8.1
6.9
5.7
4.5
3.3

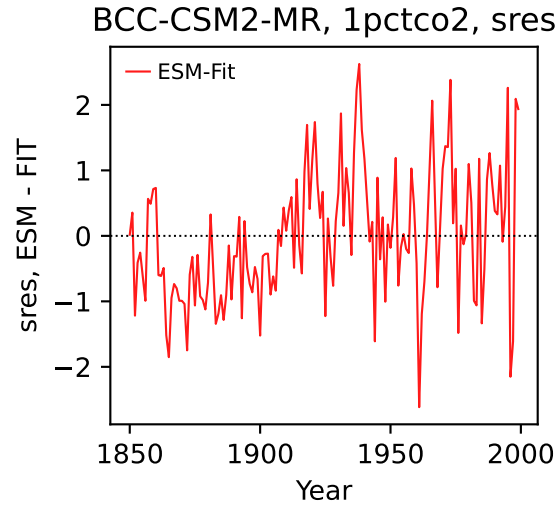

BCC-CSM2-MR, 1pctco2, vres, ln(MSE/SIGMA)
309, -0.2338, 300.3436, -0.3986, 0.0026, -0.0276, 0.9568, 0.9118, 0
vres_c_half
vres_c_l
BCC-CSM2-MR
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
10.8
9.6
8.4
7.2
6.0
4.8
3.6
2.4
1.2
0.0

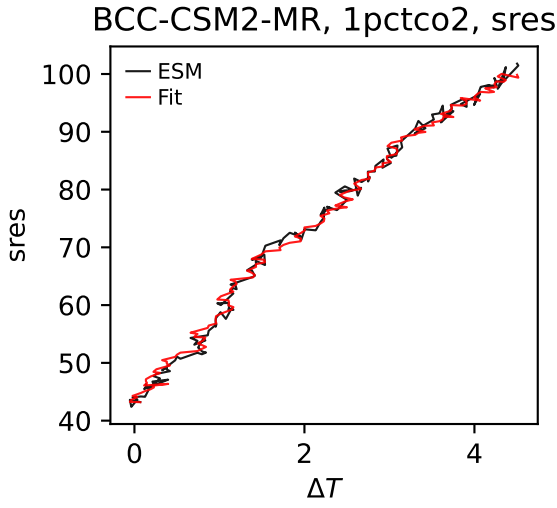

BCC-CSM2-MR, 1pctco2, vres, ln(MSE/SIGMA)
309, -0.2338, 300.3436, -0.3986, 0.0026, -0.0276, 0.9568, 0.9118, 0
BCC-CSM2-MR
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
12.4
11.2
10.0
8.8
7.6
6.4
5.2
4.0
2.8
1.6

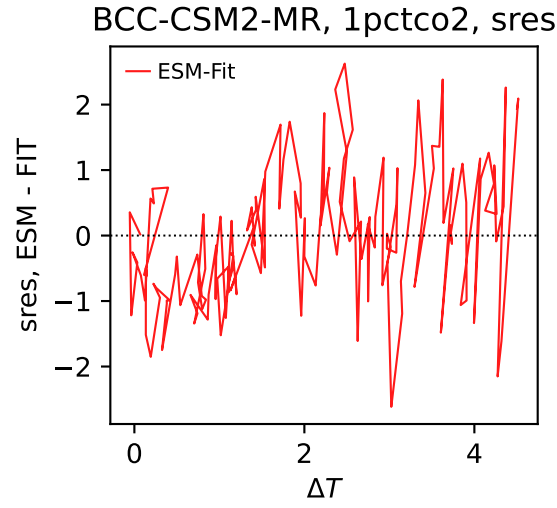

BCC-CSM2-MR, 1pctco2, vres, ln(MSE/SIGMA)
309, -0.2338, 300.3436, -0.3986, 0.0026, -0.0276, 0.9568, 0.9118, 0
BCC-CSM2-MR
0.04
0.02
0.00
−0.02
−0.04
vres_c_tan2
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
vres_c_tan
8.25
7.25
6.25
5.25
4.25
3.25
2.25
1.25

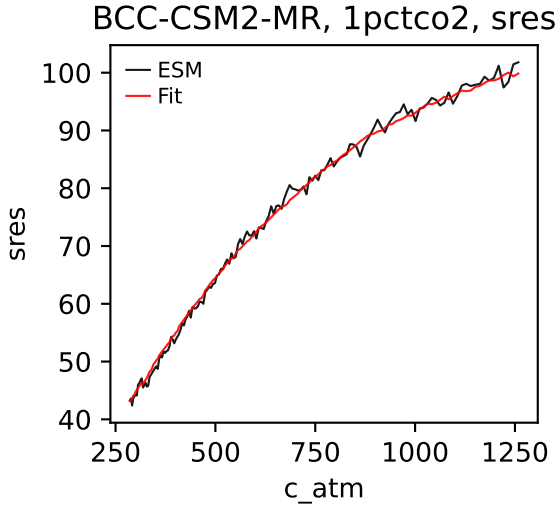

BCC-CSM2-MR, 1pctco2, vres, ln(MSE/SIGMA)
309, -0.2338, 300.3436, -0.3986, 0.0026, -0.0276, 0.9568, 0.9118, 0
BCC-CSM2-MR
vres_slow
vres_fast
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.90
0.92
0.94
0.96
0.98
1.00
3.60
3.15
2.70
2.25
1.80
1.35
0.90
0.45
0.00

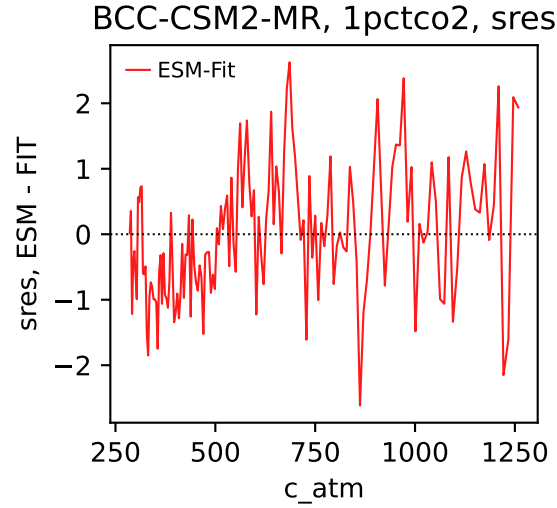

BCC-CSM2-MR, 1pctco2, sres
ESM
Fit
sres
Year

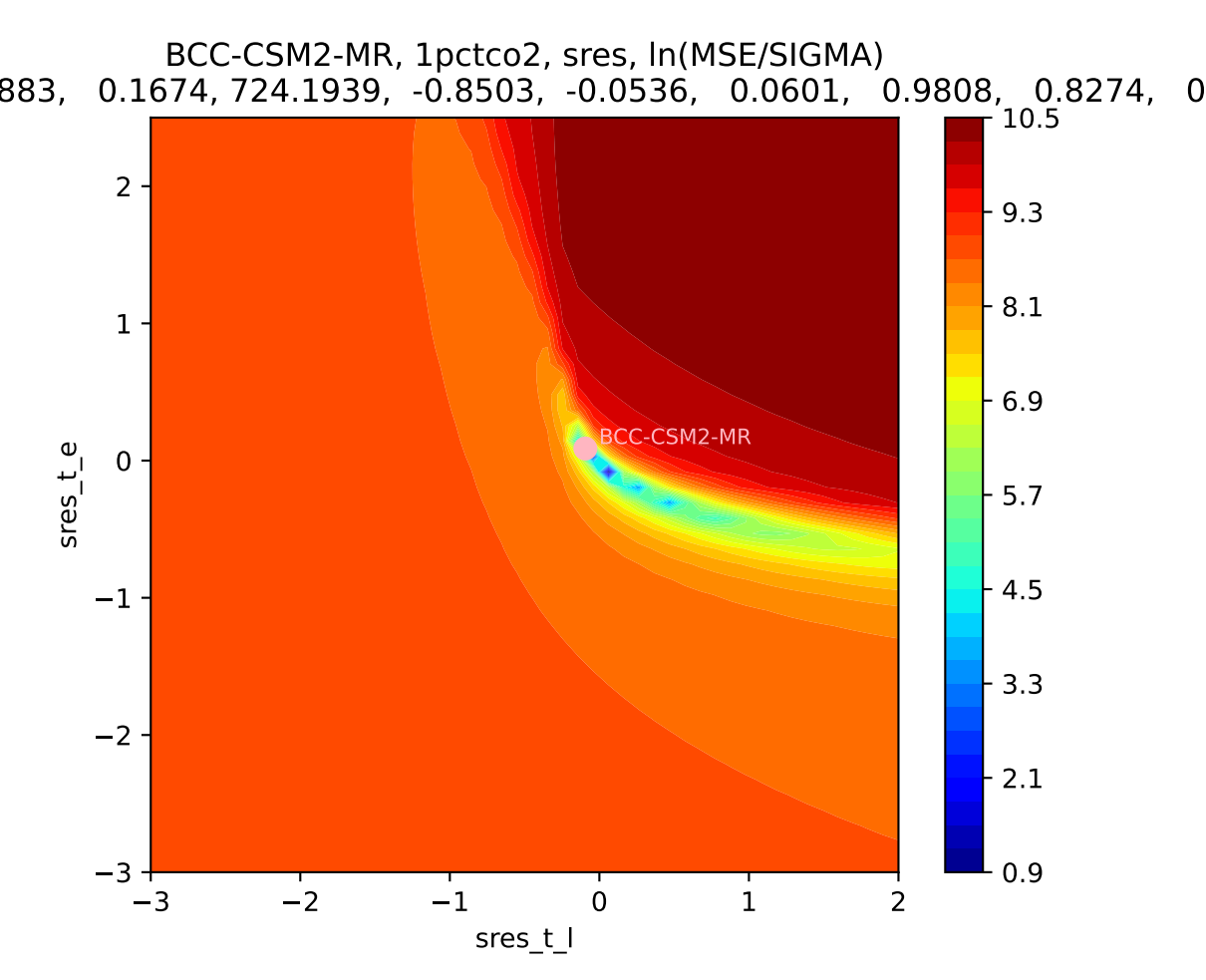

BCC-CSM2-MR, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
Year

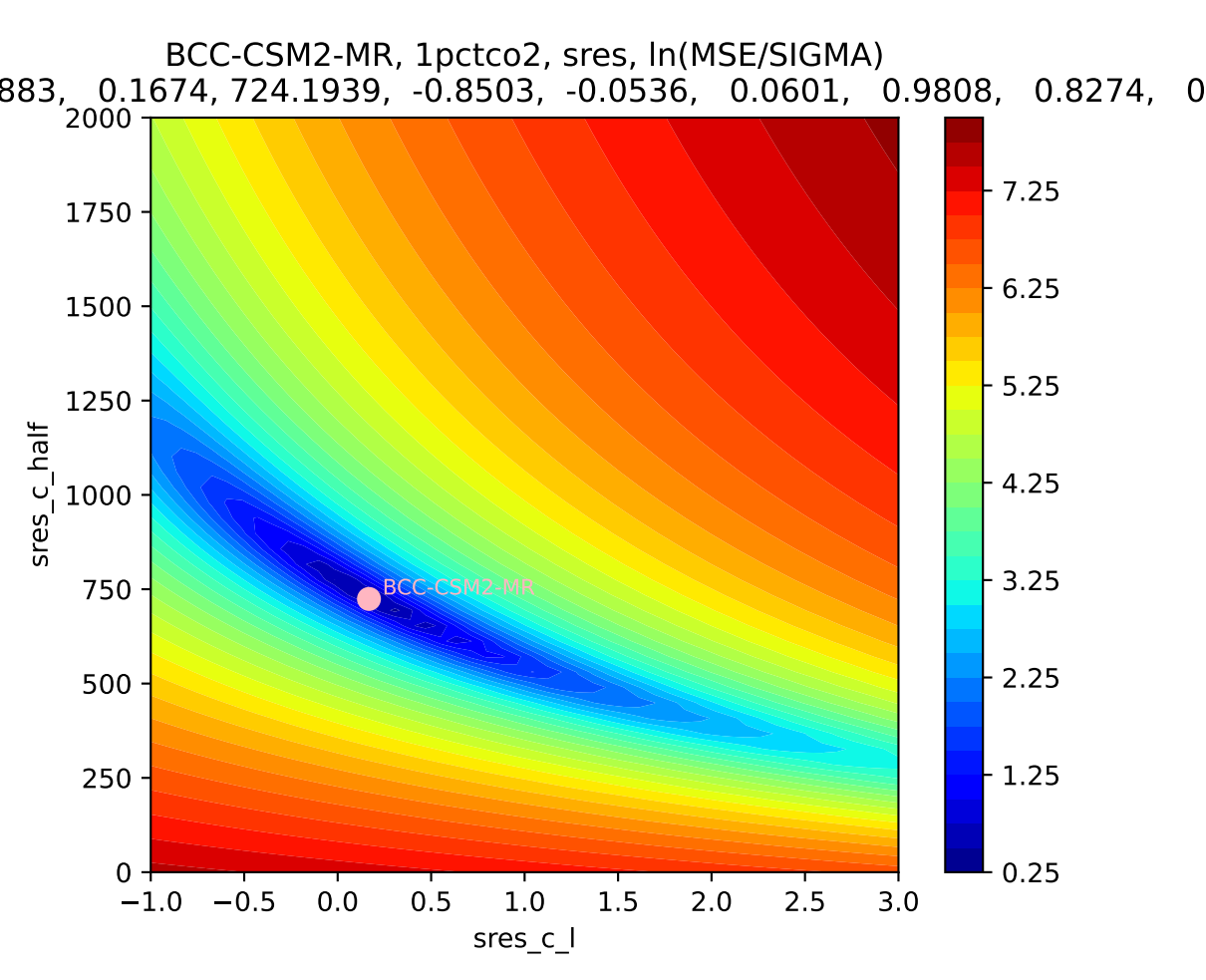

BCC-CSM2-MR, 1pctco2, sres
ESM
Fit
sres
ΔT

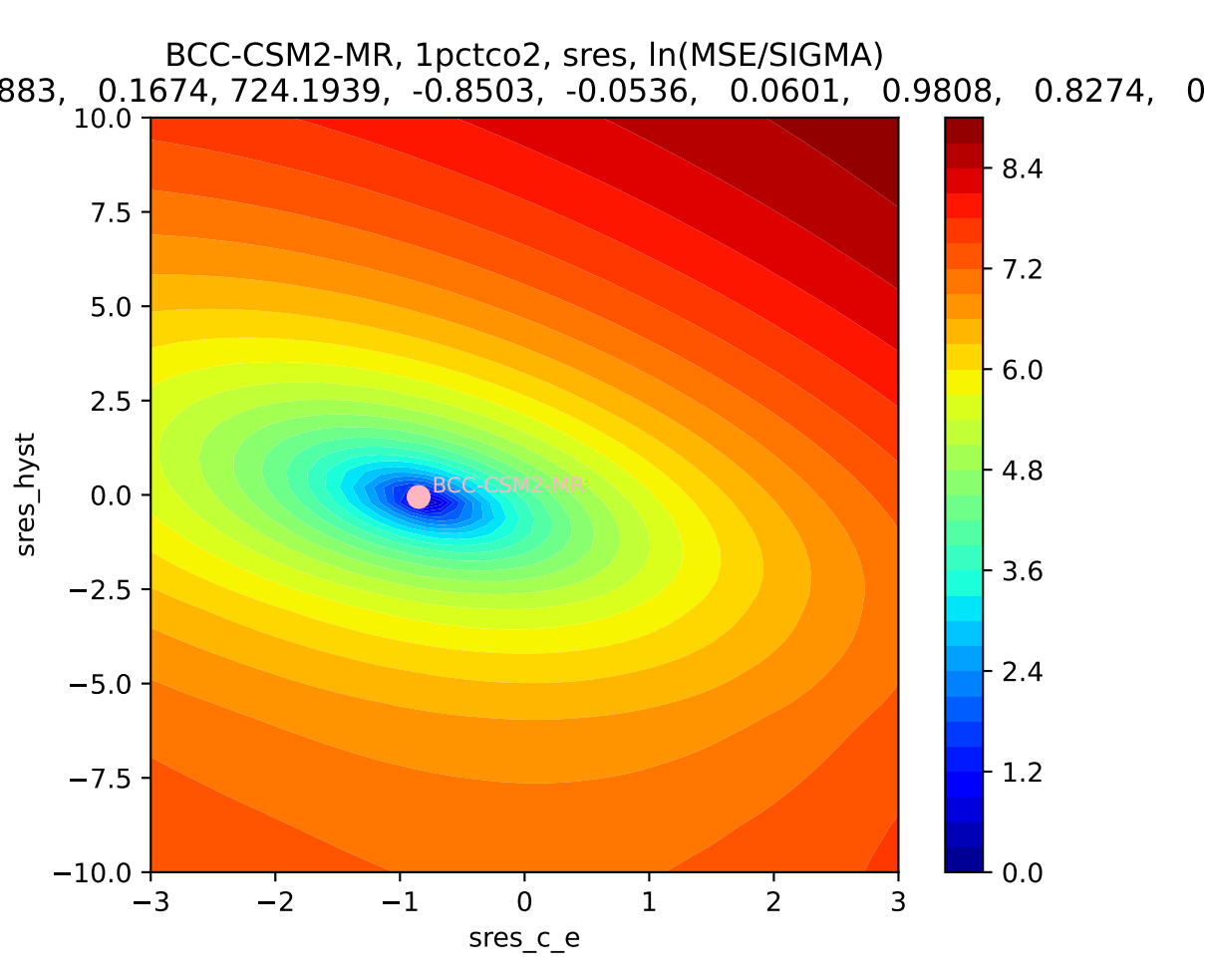

BCC-CSM2-MR, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
ΔT

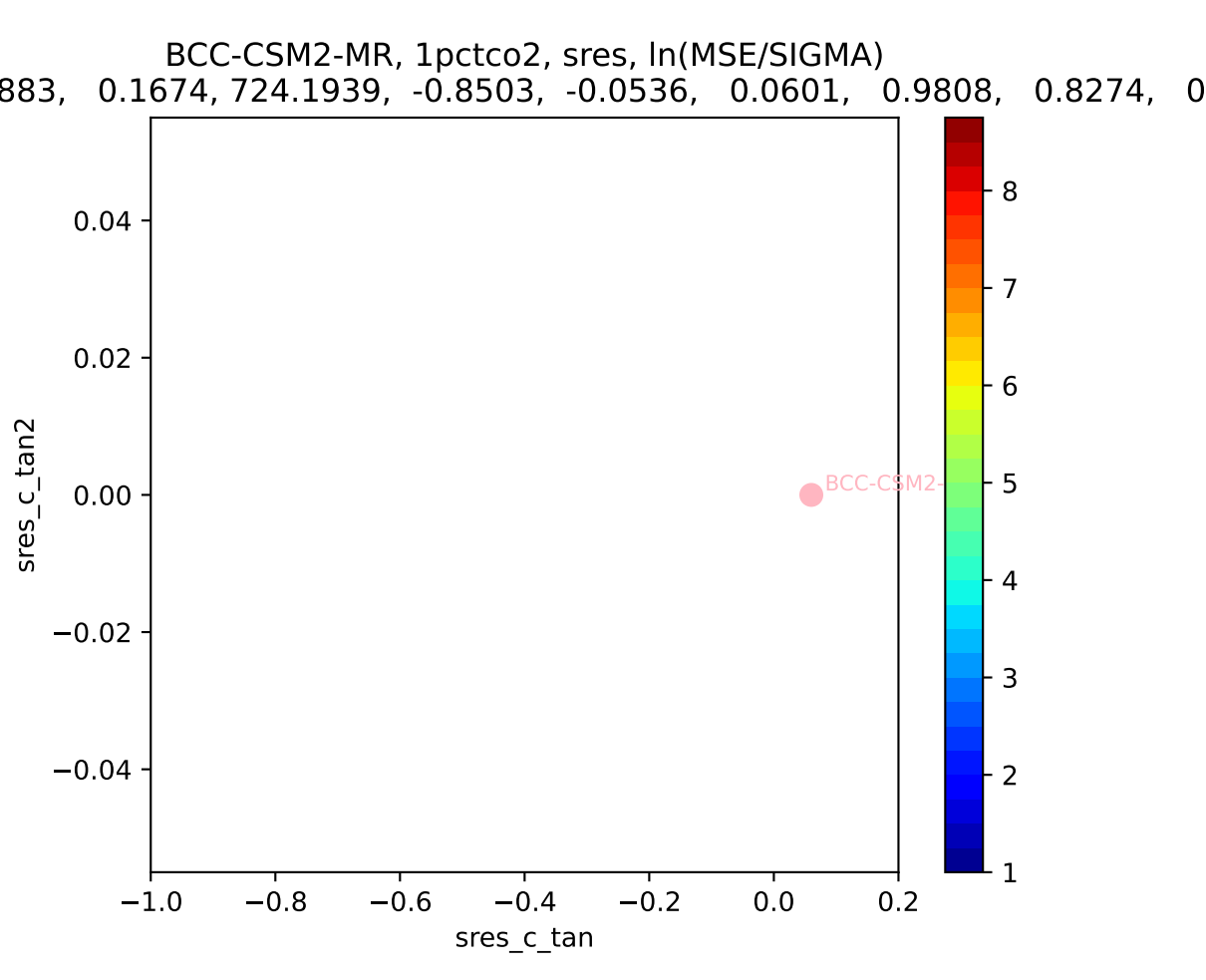

BCC-CSM2-MR, 1pctco2, sres
ESM
Fit
sres
c_atm

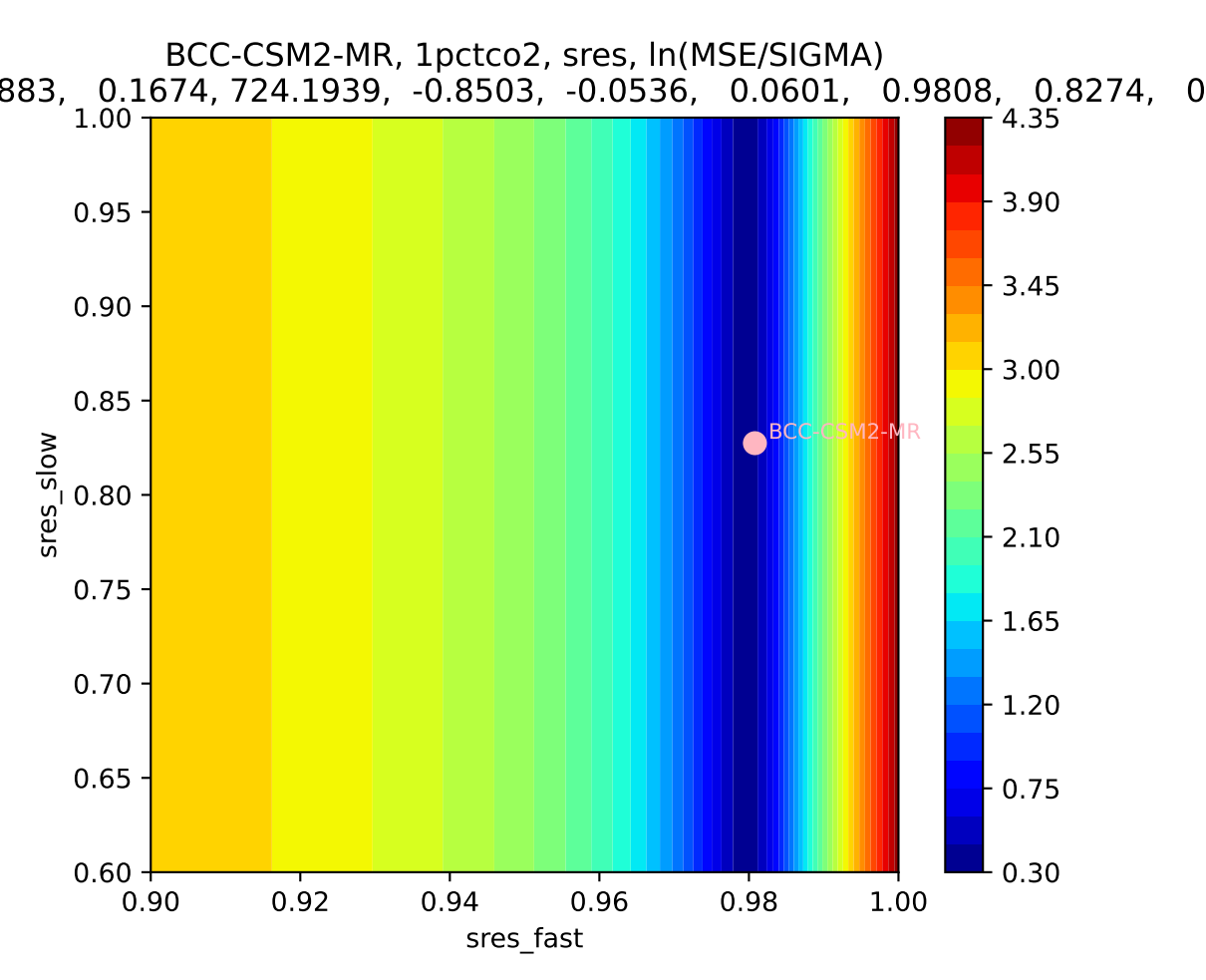

BCC-CSM2-MR, 1pctco2, sres
ESM-Fit
sres, ESM - FIT
c_atm

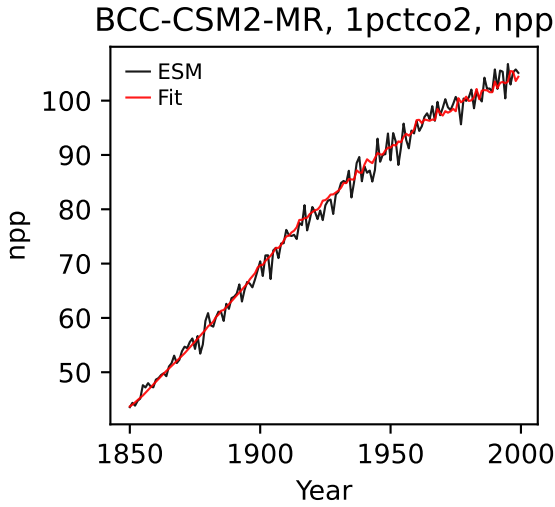

BCC-CSM2-MR, 1pctco2, sres, ln(MSE/SIGMA)
883, 0.1674, 724.1939, -0.8503, -0.0536, 0.0601, 0.9808, 0.8274, 0
BCC-CSM2-MR
sres_t_e
sres_t_l
−3
−2
−1
0
1
2
10.5
9.3
8.1
6.9
5.7
4.5
3.3
2.1
0.9

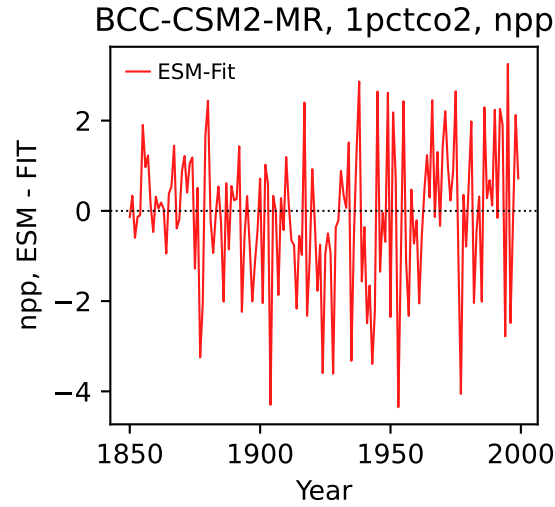

BCC-CSM2-MR, 1pctco2, sres, ln(MSE/SIGMA)
883, 0.1674, 724.1939, -0.8503, -0.0536, 0.0601, 0.9808, 0.8274, 0
2000
1750
1500
1250
1000
750
500
250
0
sres_c_half
BCC-CSM2-MR
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
sres_c_l
7.25
6.25
5.25
4.25
3.25
2.25
1.25
0.25

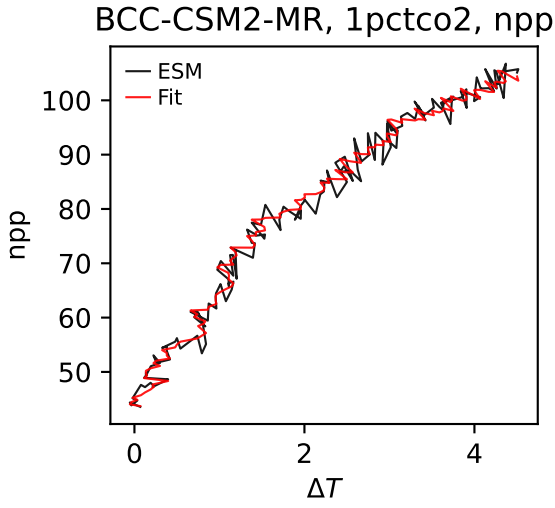

BCC-CSM2-MR, 1pctco2, sres, ln(MSE/SIGMA)
883, 0.1674, 724.1939, -0.8503, -0.0536, 0.0601, 0.9808, 0.8274, 0
BCC-CSM2-MR
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
8.4
7.2
6.0
4.8
3.6
2.4
1.2
0.0

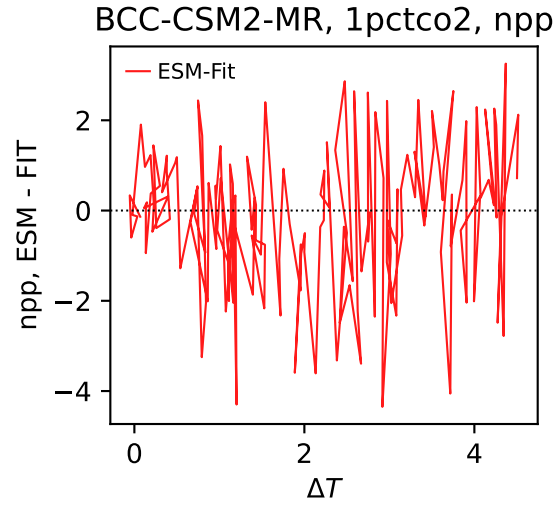

BCC-CSM2-MR, 1pctco2, sres, ln(MSE/SIGMA)
883, 0.1674, 724.1939, -0.8503, -0.0536, 0.0601, 0.9808, 0.8274, 0
BCC-CSM2-
0.04
0.02
0.00
−0.02
−0.04
sres_c_tan2
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
sres_c_tan
8
7
6
5
4
3
2
1

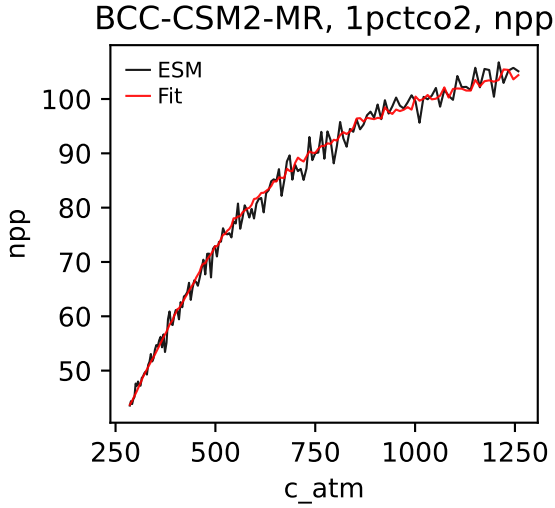

BCC-CSM2-MR, 1pctco2, sres, ln(MSE/SIGMA)
883, 0.1674, 724.1939, -0.8503, -0.0536, 0.0601, 0.9808, 0.8274, 0
sres_slow
sres_fast
BCC-CSM2-MR
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.90
0.92
0.94
0.96
0.98
1.00
4.35
3.90
3.45
3.00
2.55
2.10
1.65
1.20
0.75
0.30

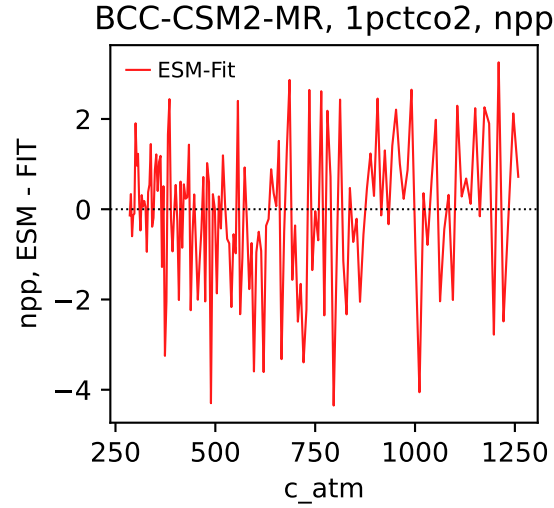

BCC-CSM2-MR, 1pctco2, npp
ESM
Fit
npp
Year

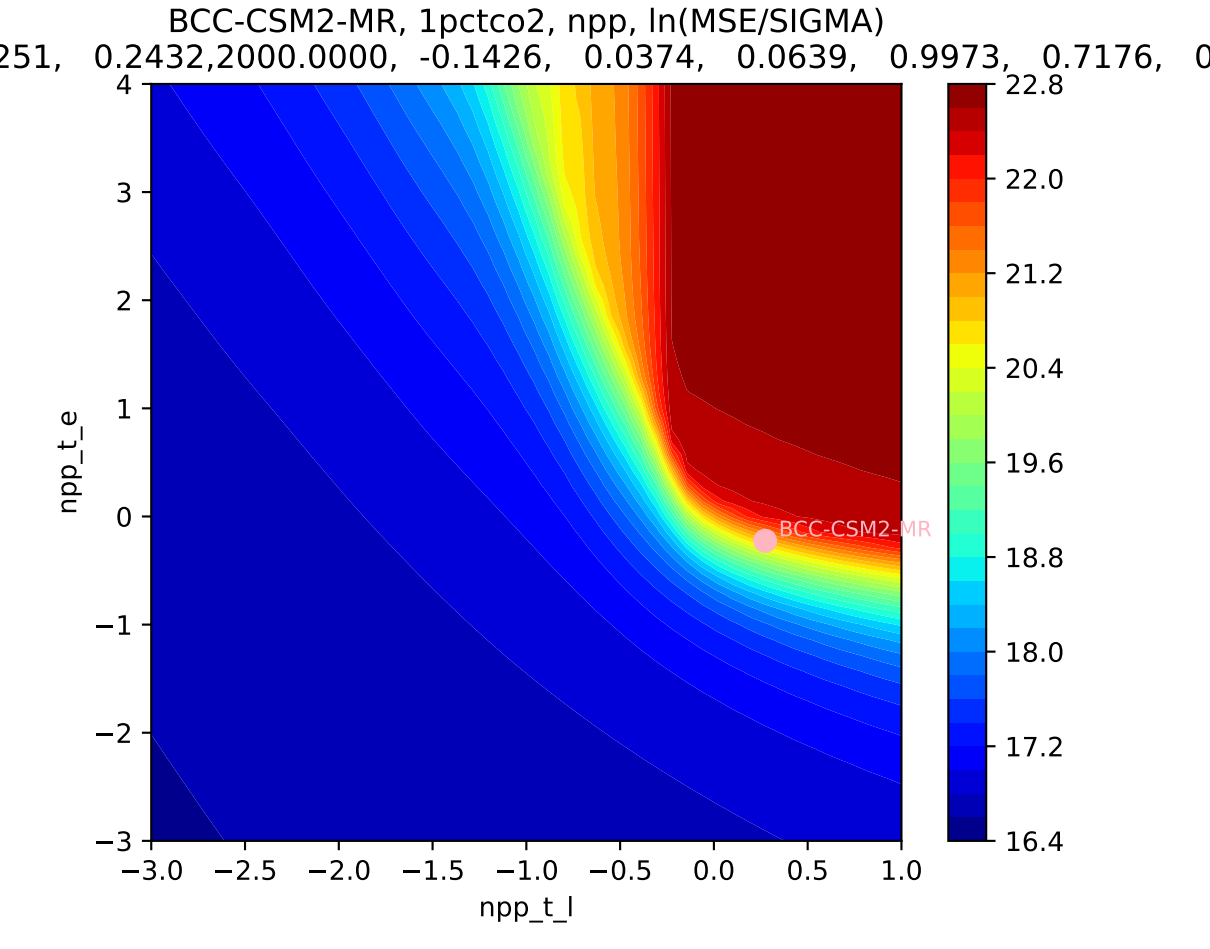

BCC-CSM2-MR, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
Year

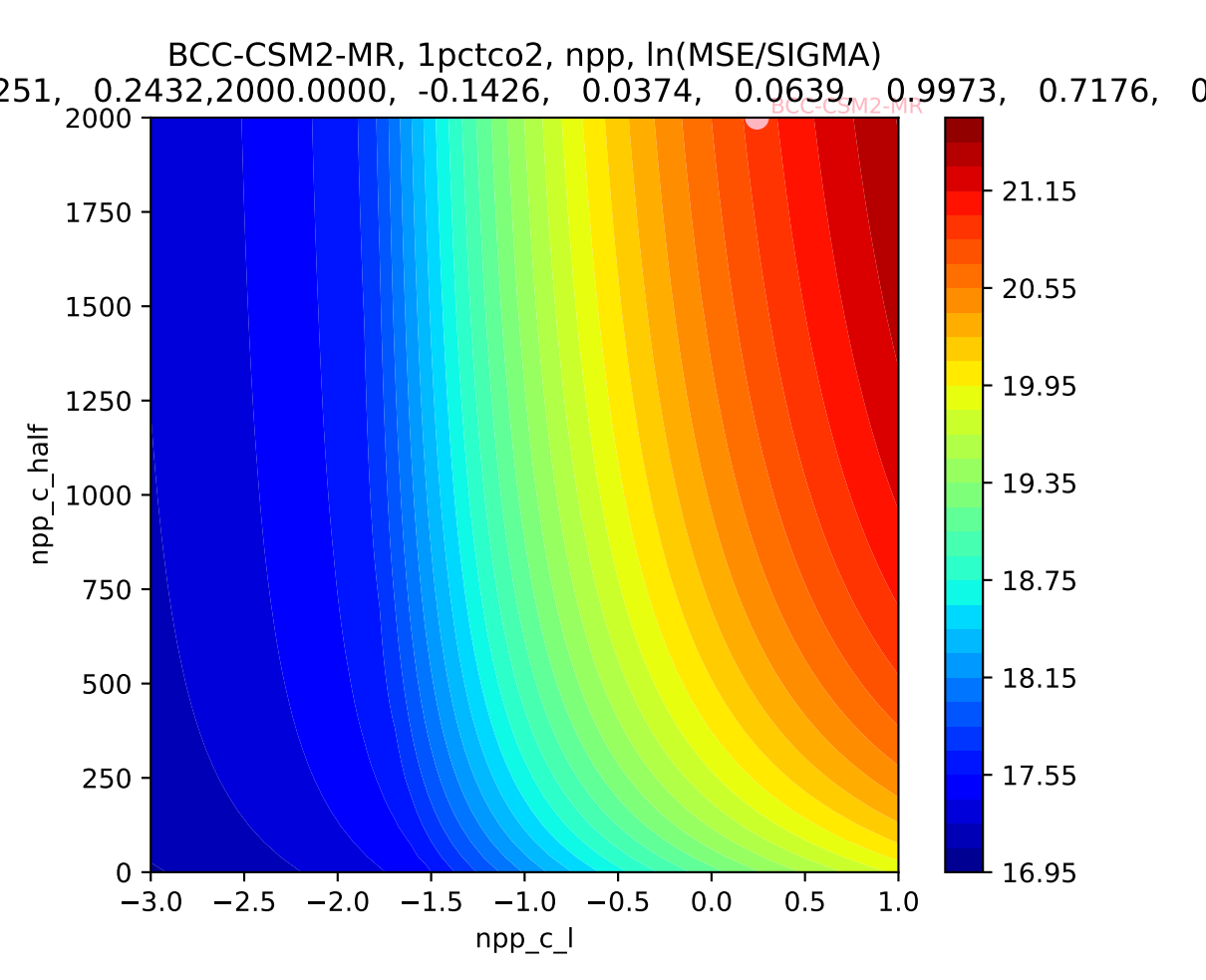

BCC-CSM2-MR, 1pctco2, npp
ESM
Fit
npp
ΔT

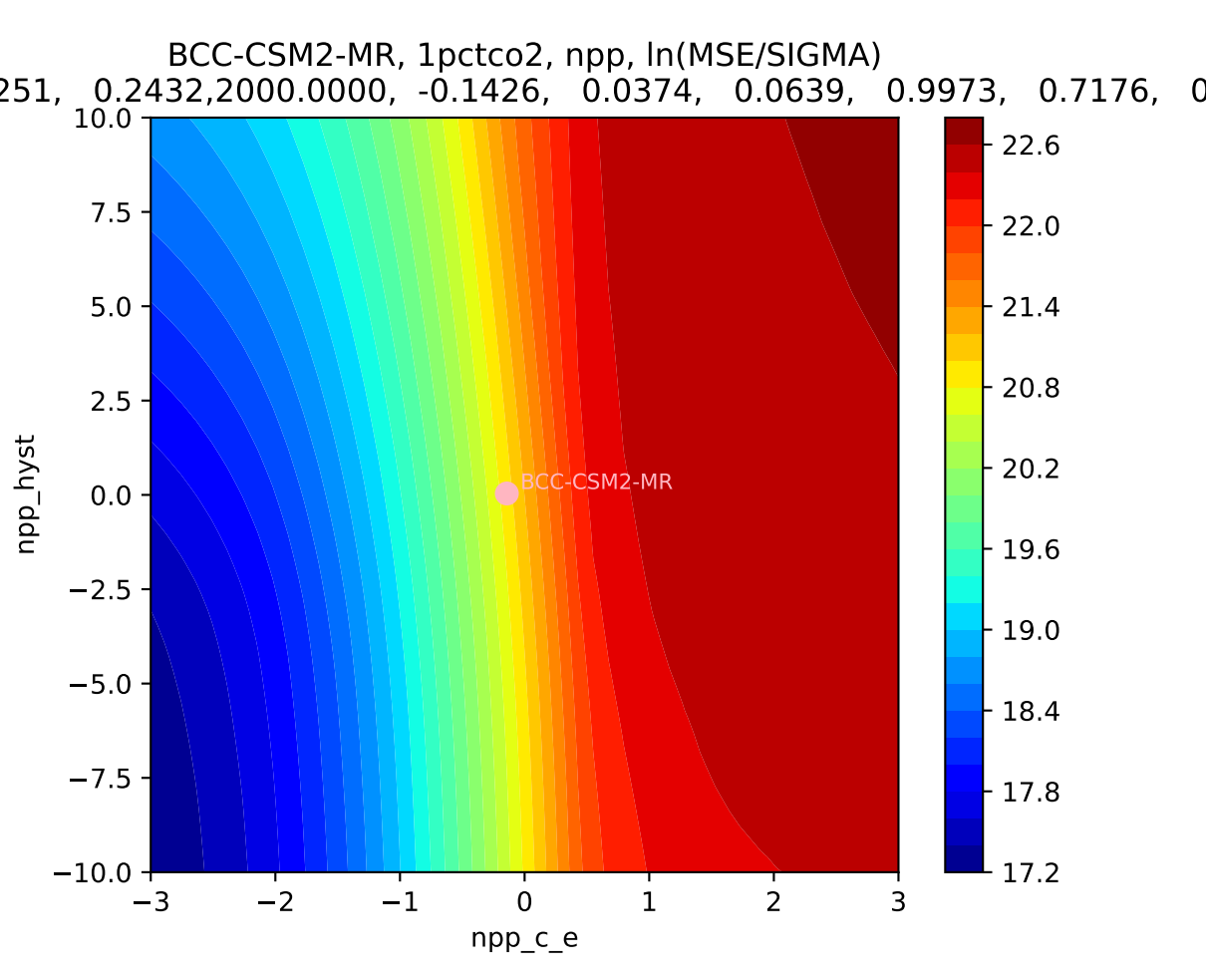

BCC-CSM2-MR, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
ΔT

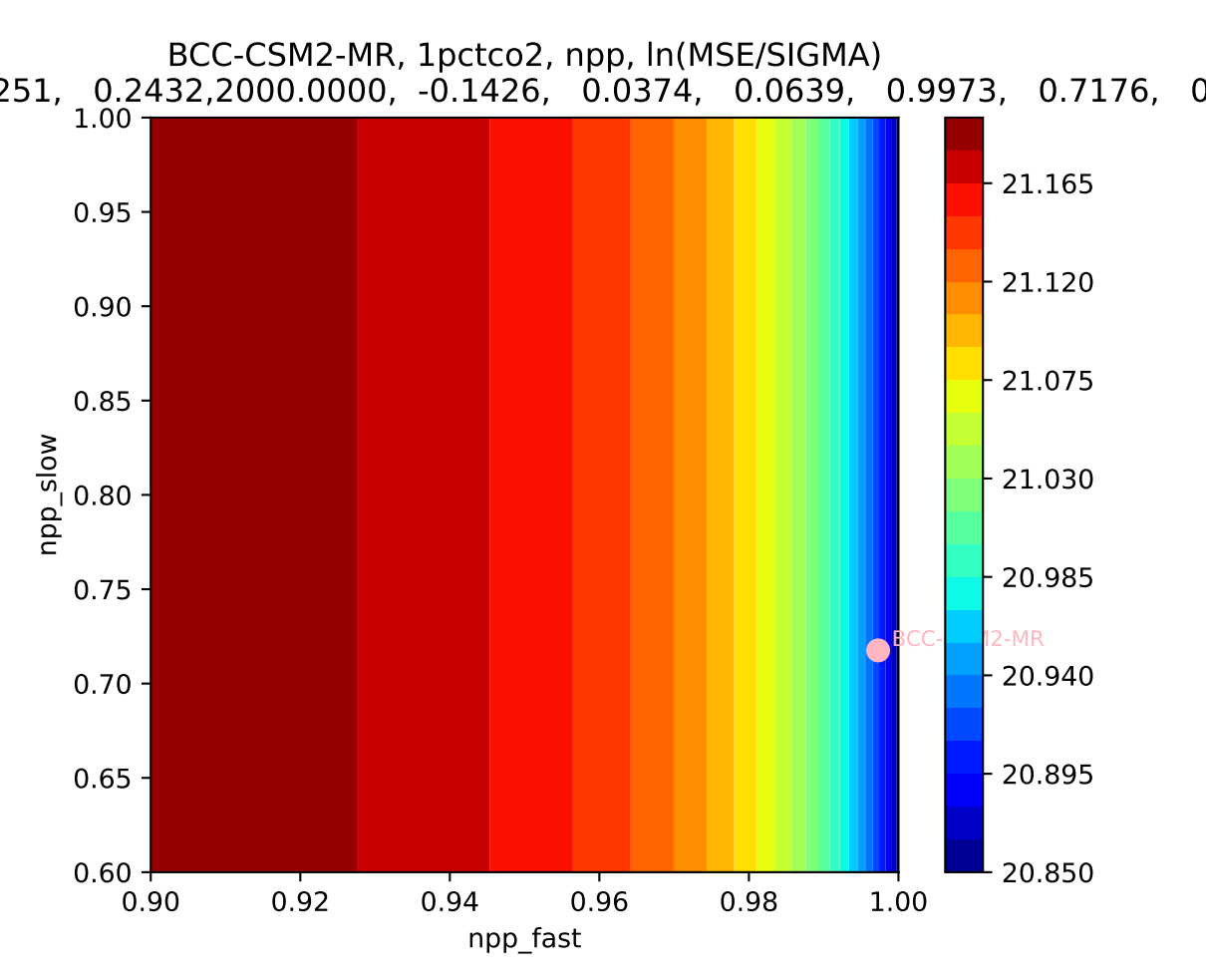

BCC-CSM2-MR, 1pctco2, npp
ESM
Fit
npp
c_atm

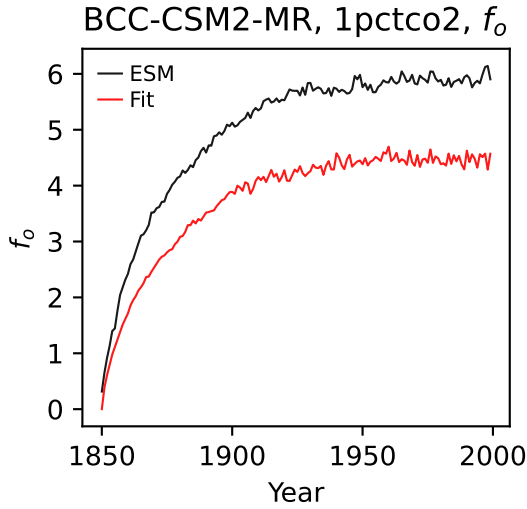

BCC-CSM2-MR, 1pctco2, npp
ESM-Fit
npp, ESM - FIT
c_atm

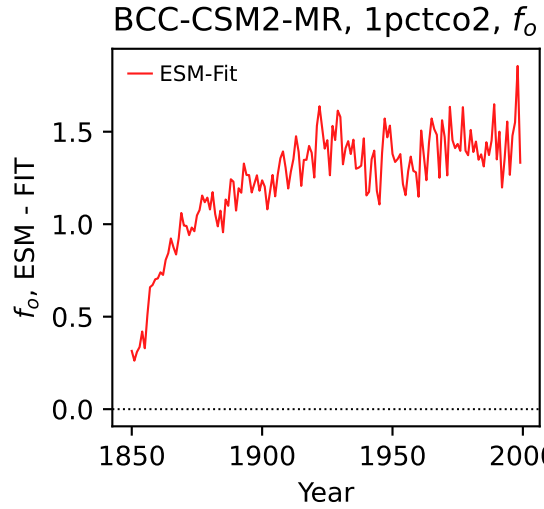

BCC-CSM2-MR, 1pctco2, npp, ln(MSE/SIGMA)
251, 0.2432,2000.0000, -0.1426, 0.0374, 0.0639, 0.9973, 0.7176, 0
BCC-CSM2-MR
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
22.8
22.0
21.2
20.4
19.6
18.8
18.0
17.2
16.4

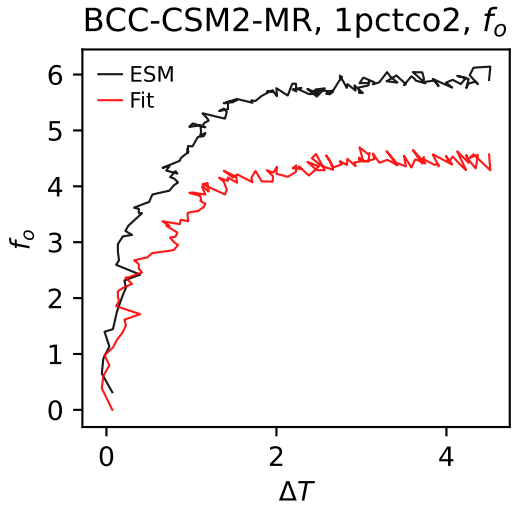

BCC-CSM2-MR, 1pctco2, npp, ln(MSE/SIGMA)
251, 0.2432,2000.0000, -0.1426, 0.0374, 0.0639, 0.9973, 0.7176, 0
BCC-CSM2-MR
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
npp_c_l
21.15
20.55
19.95
19.35
18.75
18.15
17.55
16.95

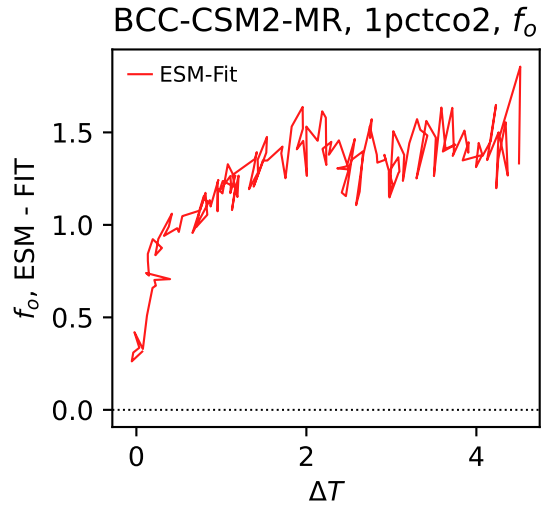

BCC-CSM2-MR, 1pctco2, npp, ln(MSE/SIGMA)
251, 0.2432,2000.0000, -0.1426, 0.0374, 0.0639, 0.9973, 0.7176, 0
BCC-CSM2-MR
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.6
22.0
21.4
20.8
20.2
19.6
19.0
18.4
17.8
17.2

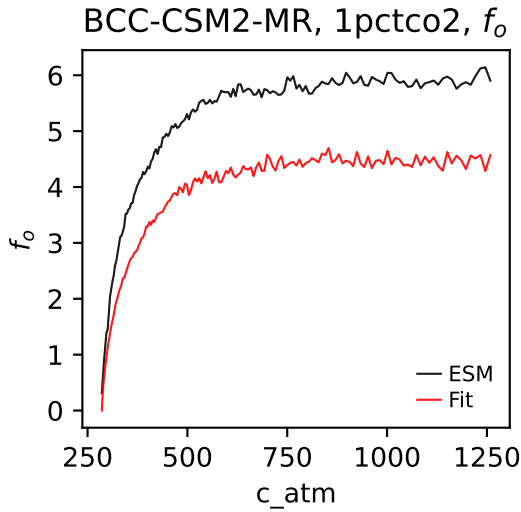

BCC-CSM2-MR, 1pctco2, npp, ln(MSE/SIGMA)
251, 0.2432,2000.0000, -0.1426, 0.0374, 0.0639, 0.9973, 0.7176, 0
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
npp_slow
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast
21.165
21.120
21.075
21.030
20.985
20.940
20.895
20.850
BCC-
M2-MR

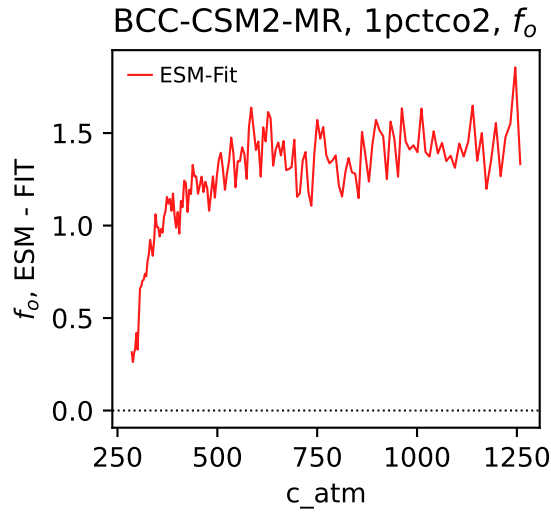

BCC-CSM2-MR, 1pctco2, f_o
ESM
Fit
f_o
Year

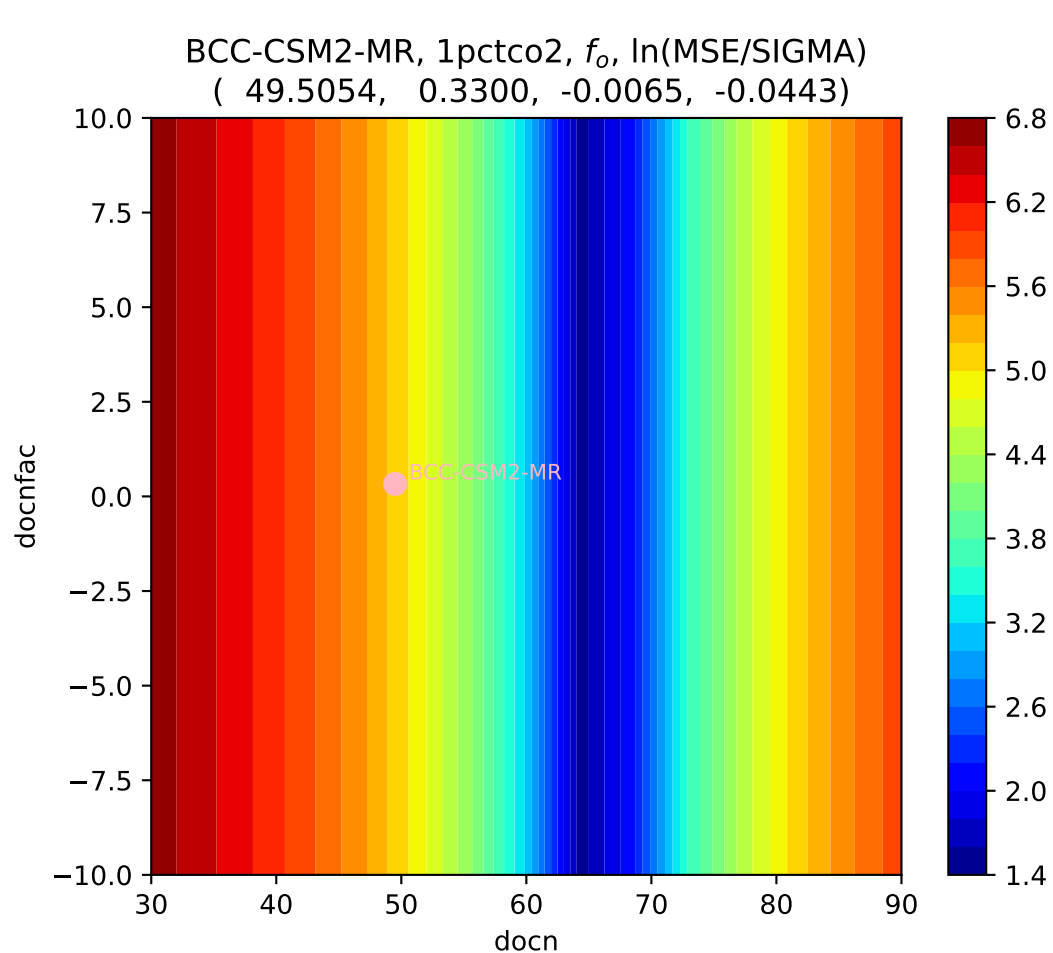

BCC-CSM2-MR, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
Year

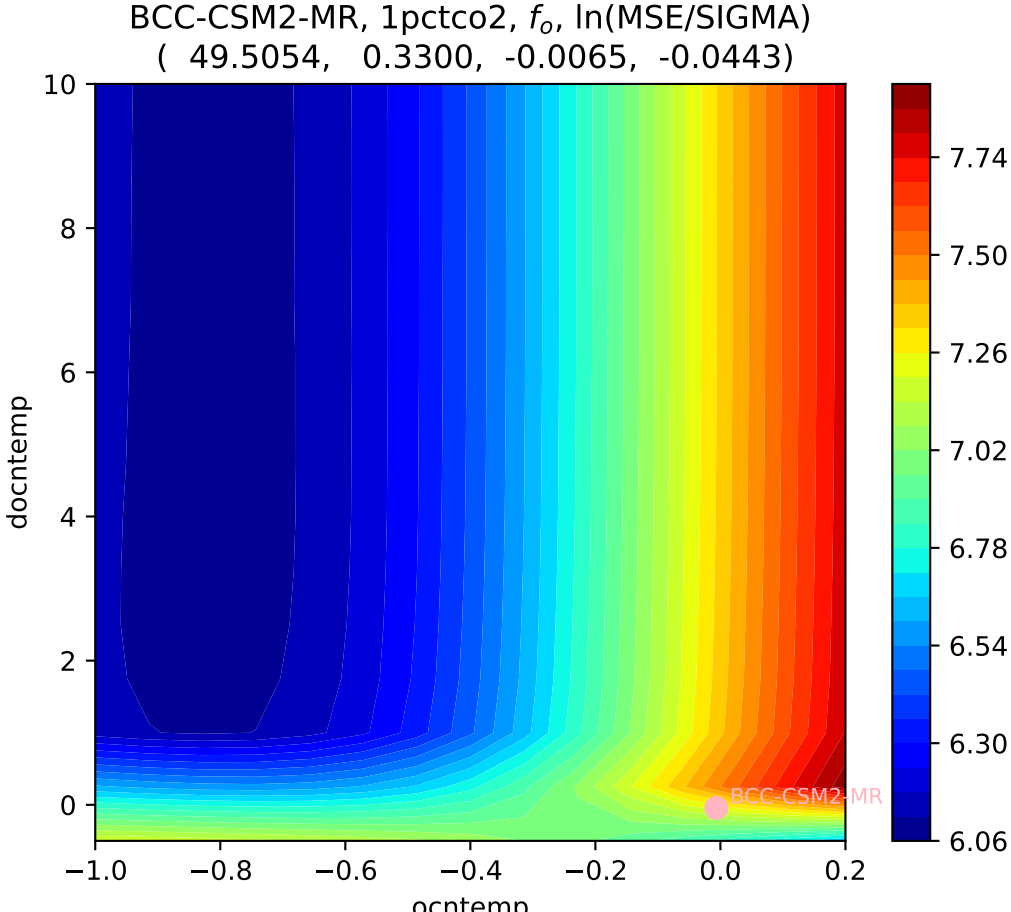

BCC-CSM2-MR, 1pctco2, f_o
ESM
Fit
f_o
ΔT


BCC-CSM2-MR, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
ΔT


BCC-CSM2-MR, 1pctco2, f_o
ESM
Fit
f_o
c_atm


BCC-CSM2-MR, 1pctco2, f_o
ESM-Fit
f_o, ESM - FIT
c_atm


BCC-CSM2-MR, 1pctco2, f_o, ln(MSE/SIGMA)
(49.5054, 0.3300, -0.0065, -0.0443)
BCC-CSM2-MR
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
6.2
5.6
5.0
4.4
3.8
3.2
2.6
2.0
1.4


BCC-CSM2-MR, 1pctco2, f_o, ln(MSE/SIGMA)
(49.5054, 0.3300, -0.0065, -0.0443)
docntemp
ocntemp
10
8
6
4
2
0
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
7.74
7.50
7.26
7.02
6.78
6.54
6.30
6.06
BCC-CSM2-MR