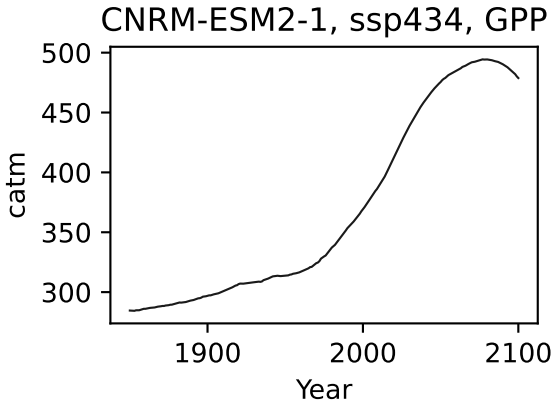
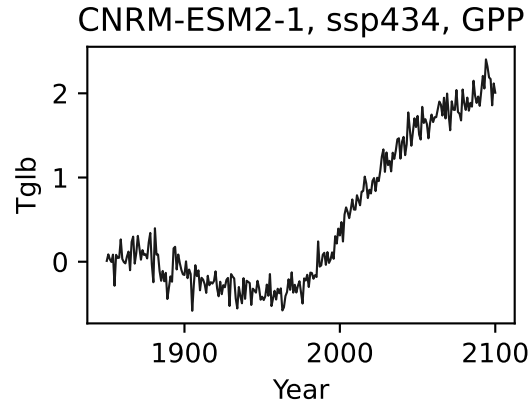
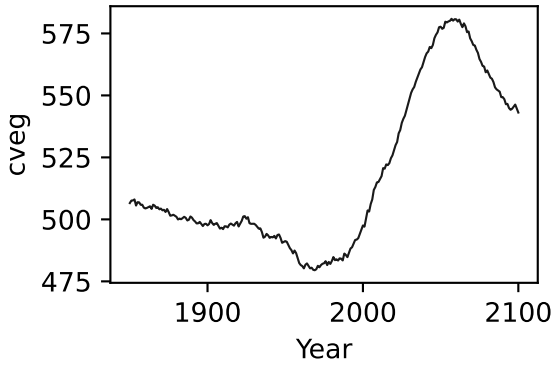
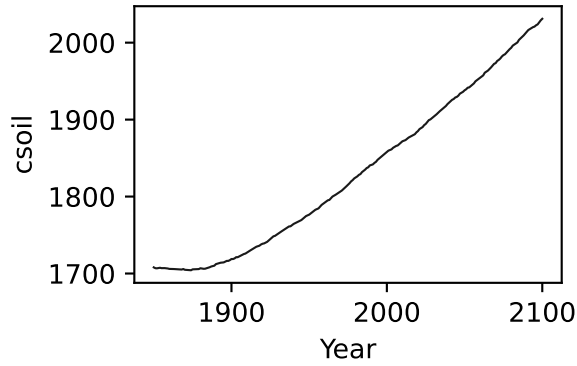
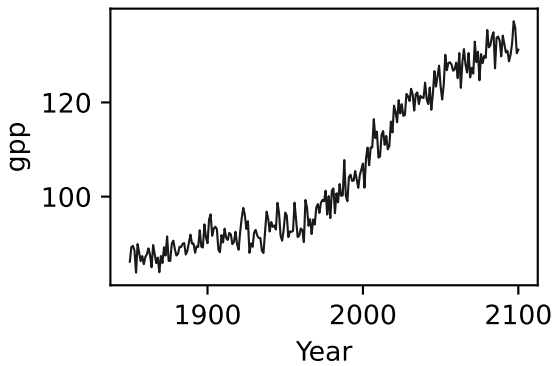
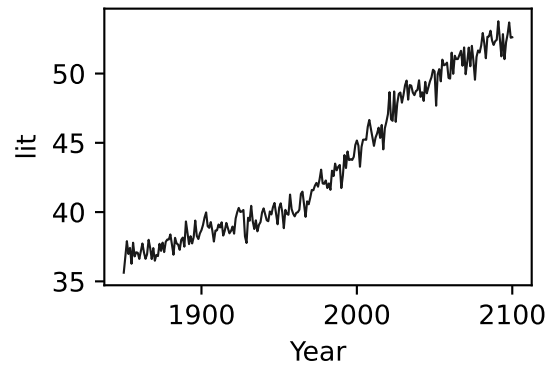

CNRM-ESM2-1, ssp434, GPP
catm
500
450
400
350
300
1900
2000
2100
Year

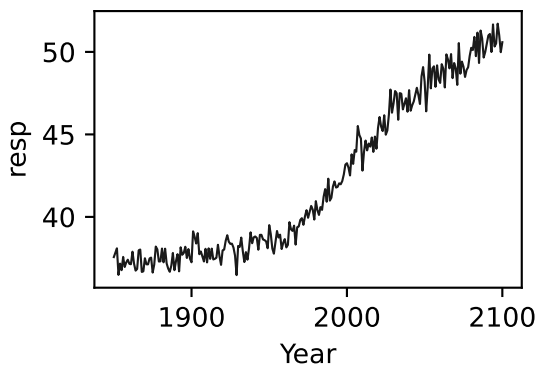

CNRM-ESM2-1, ssp434, GPP
Tglb
2
1
0
1900
2000
2100
Year

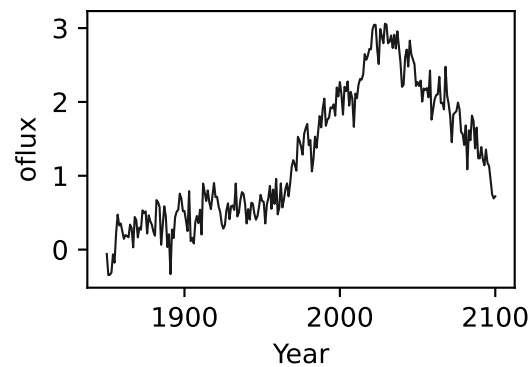

cveg
575
550
525
500
475
1900
2000
2100
Year

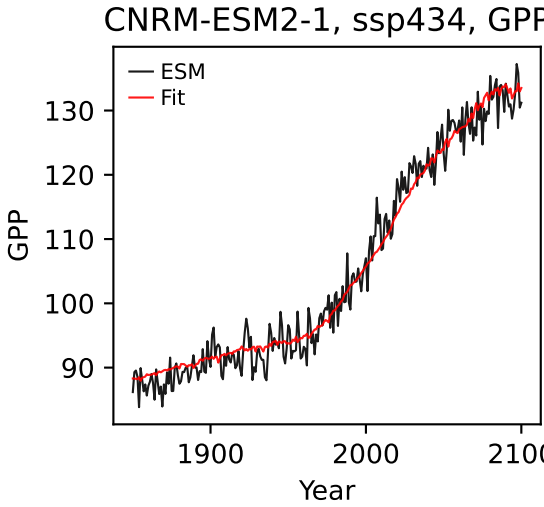

csoil
2000
1900
1800
1700
1900
2000
2100
Year

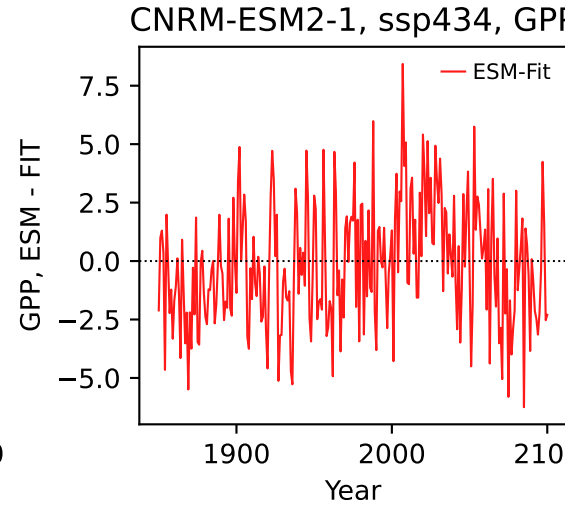

gpp
120
100
1900
2000
2100
Year

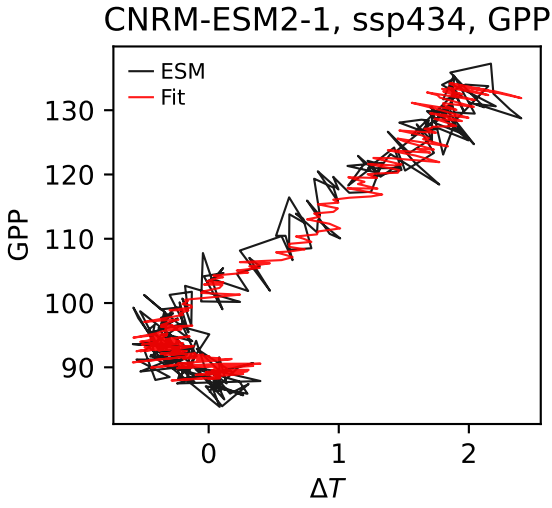

lit
50
45
40
35
1900
2000
2100
Year

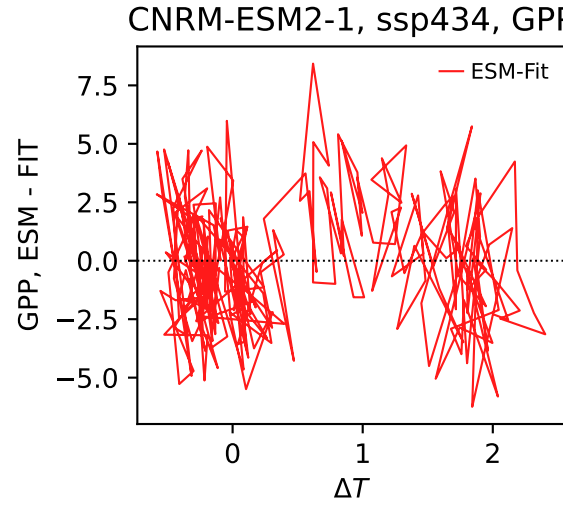

resp
50
45
40
1900
2000
2100
Year

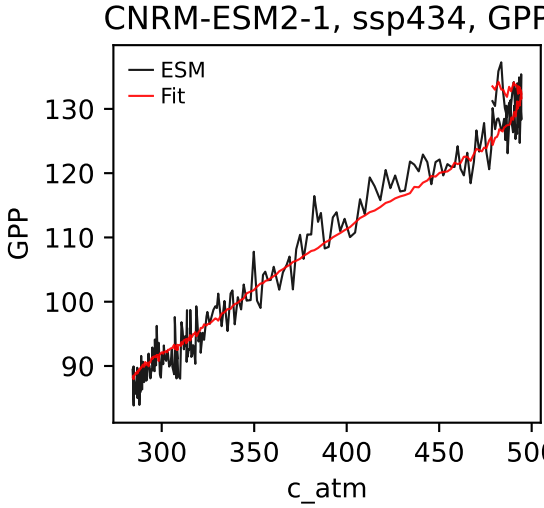

oflux
3
2
1
0
1900
2000
2100
Year

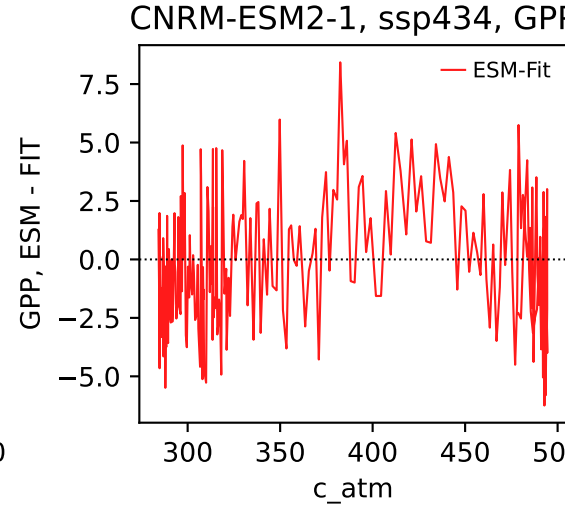

CNRM-ESM2-1, ssp434, GPP
ESM
Fit
GPP
Year

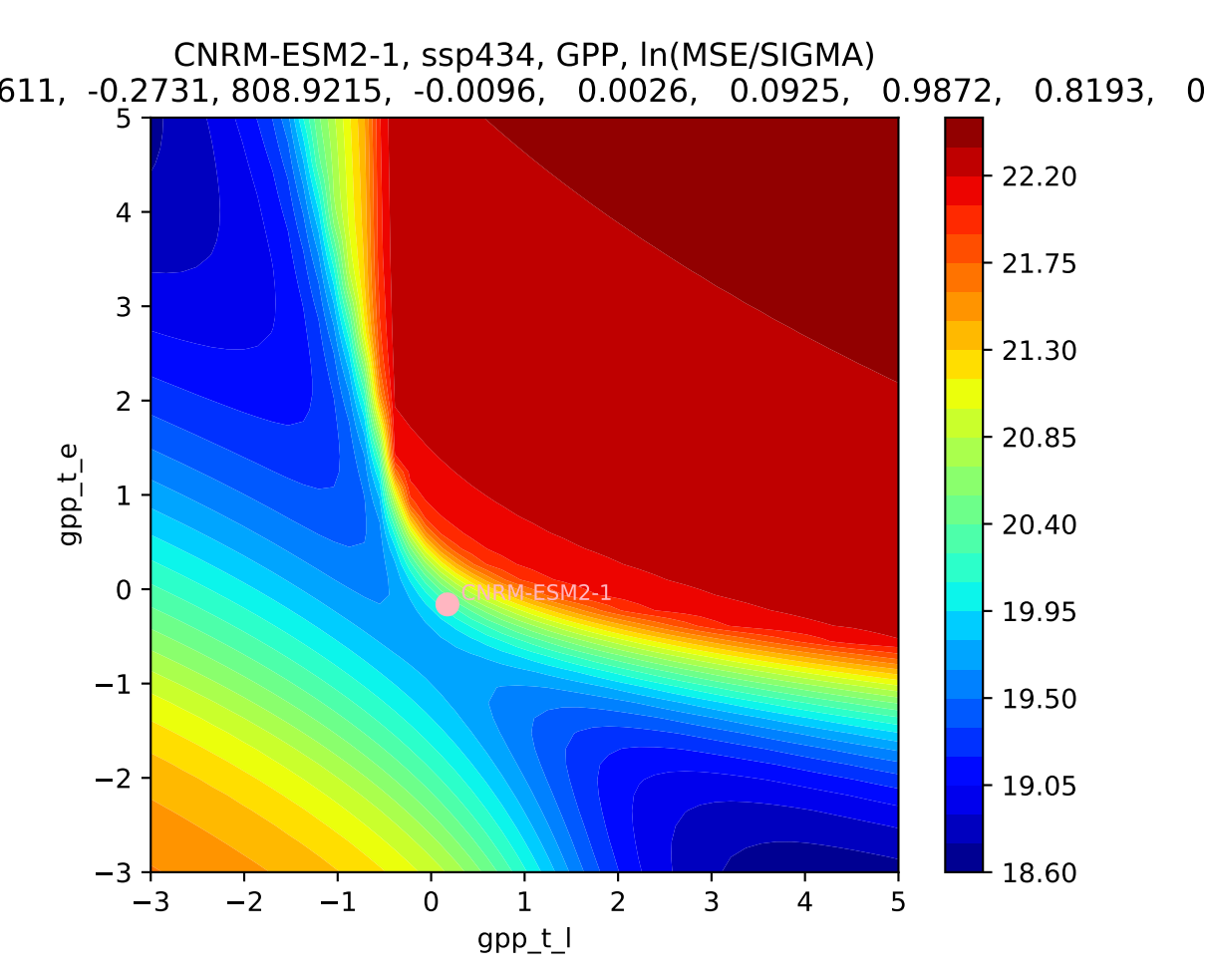

CNRM-ESM2-1, ssp434, GPP
ESM-Fit
GPP, ESM - FIT
Year

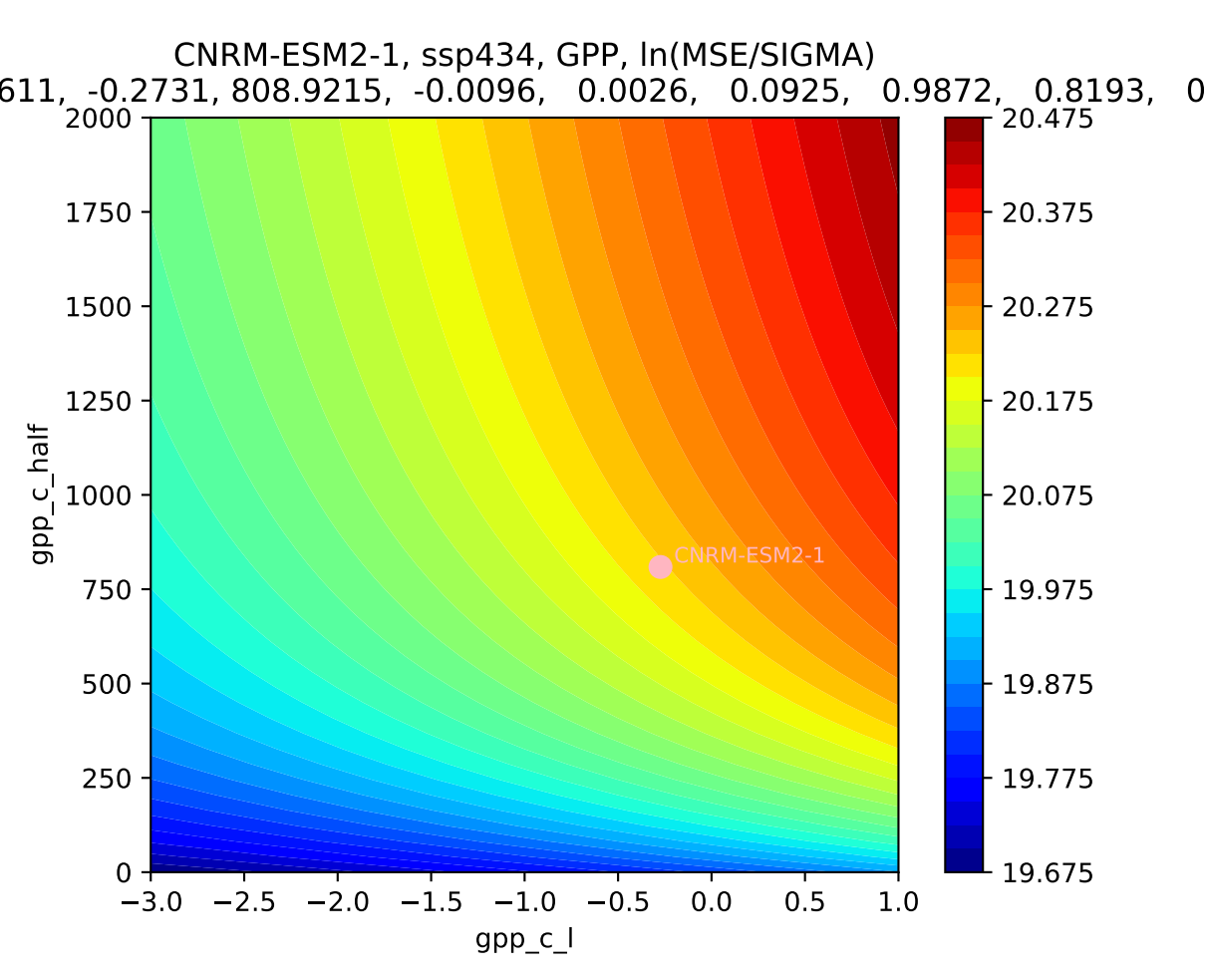

CNRM-ESM2-1, ssp434, GPP
ESM
Fit
GPP
ΔT

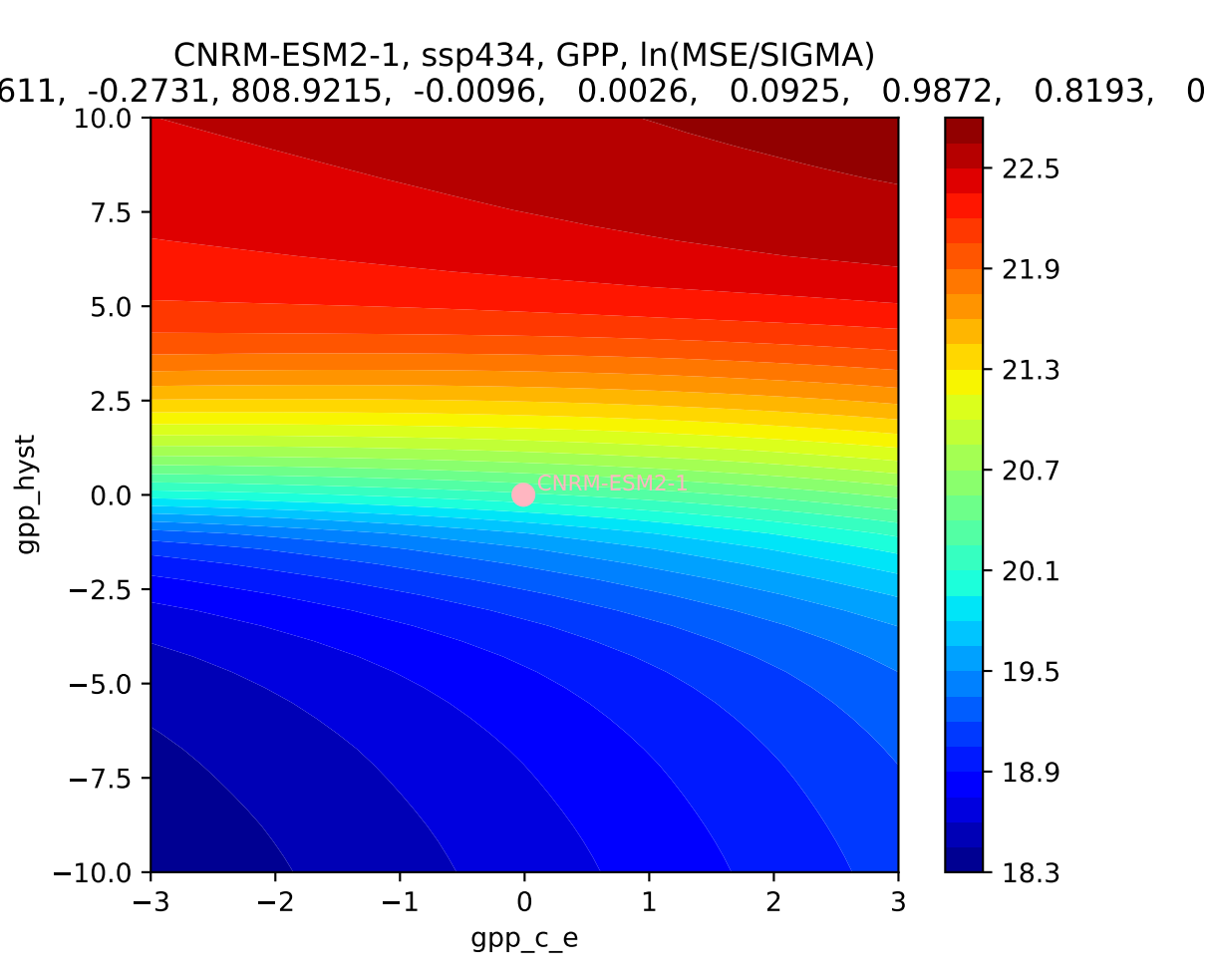

CNRM-ESM2-1, ssp434, GPP
ESM-Fit
GPP, ESM - FIT
ΔT

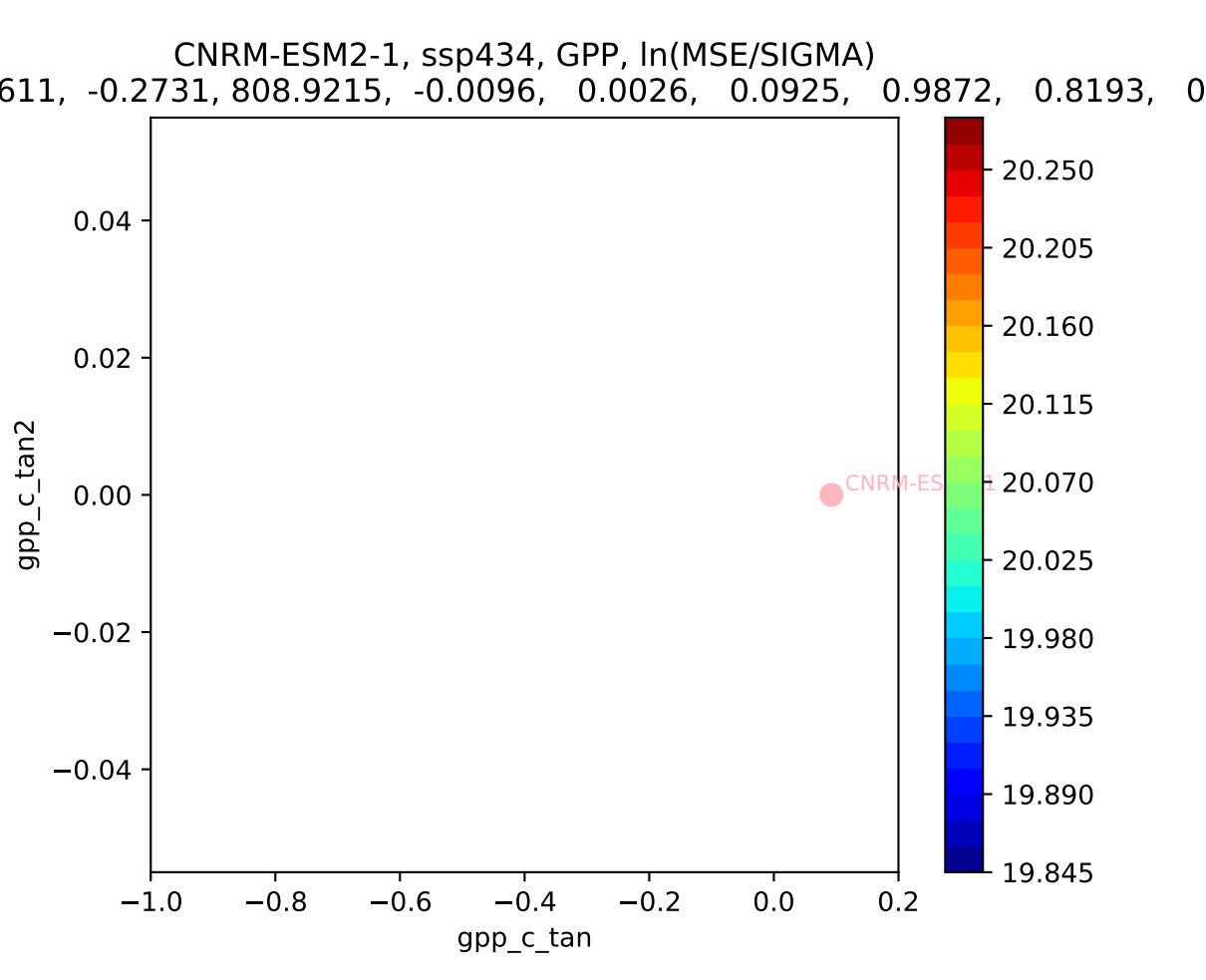

CNRM-ESM2-1, ssp434, GPP
ESM
Fit
GPP
c_atm

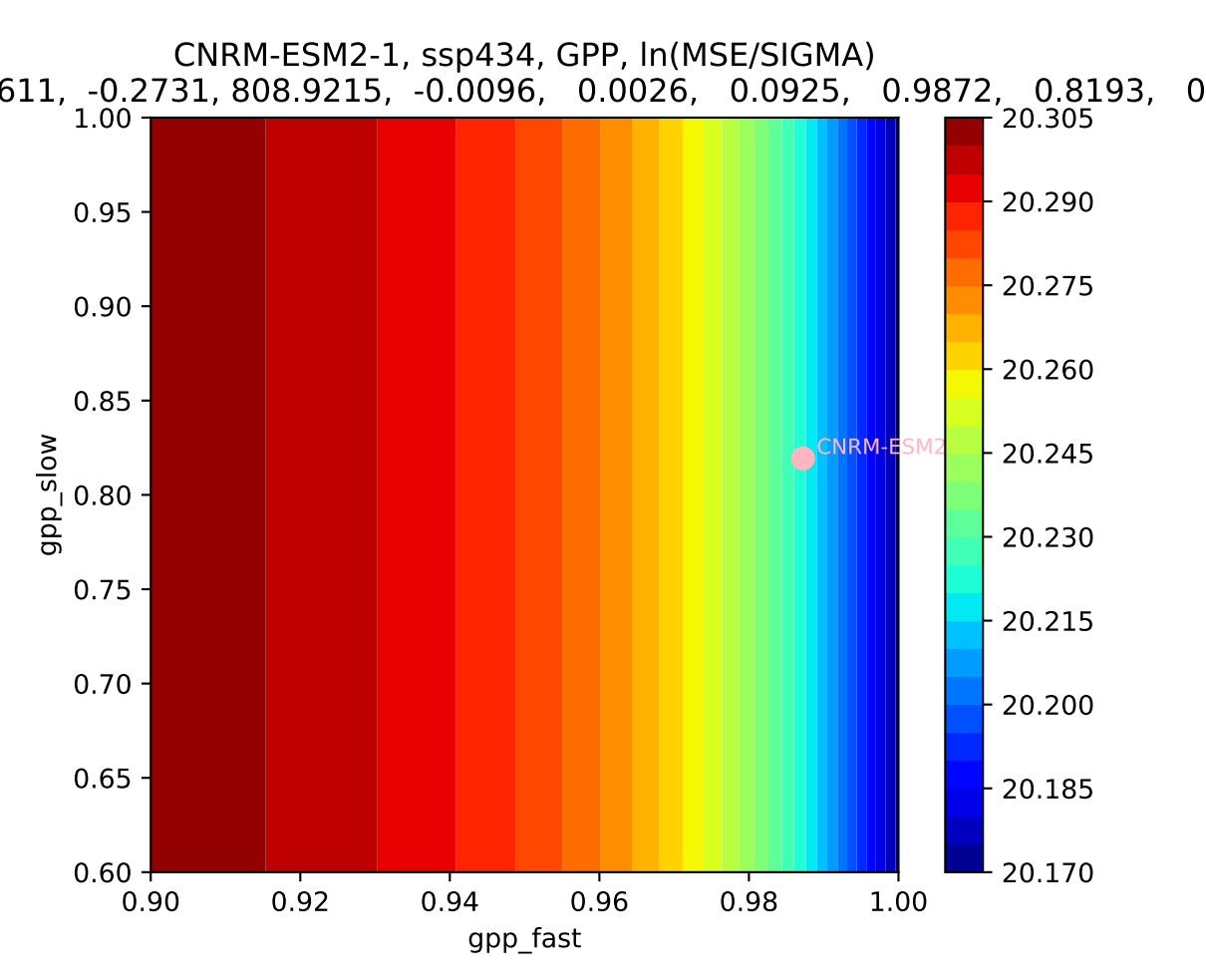

CNRM-ESM2-1, ssp434, GPP
ESM-Fit
GPP, ESM - FIT
c_atm

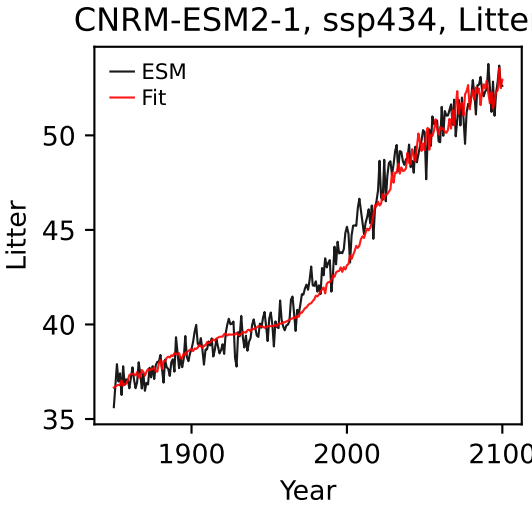

CNRM-ESM2-1, ssp434, GPP, ln(MSE/SIGMA)
611, -0.2731, 808.9215, -0.0096, 0.0026, 0.0925, 0.9872, 0.8193, 0
CNRM-ESM2-1
gpp_t_e
gpp_t_l
22.20
21.75
21.30
20.85
20.40
19.95
19.50
19.05
18.60

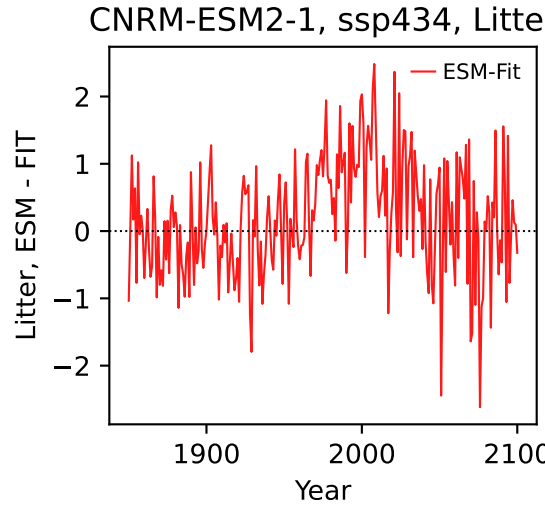

CNRM-ESM2-1, ssp434, GPP, ln(MSE/SIGMA)
611, -0.2731, 808.9215, -0.0096, 0.0026, 0.0925, 0.9872, 0.8193, 0
2000
1750
1500
1250
1000
750
500
250
0
gpp_c_half
CNRM-ESM2-1
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
gpp_c_l
20.475
20.375
20.275
20.175
20.075
19.975
19.875
19.775
19.675

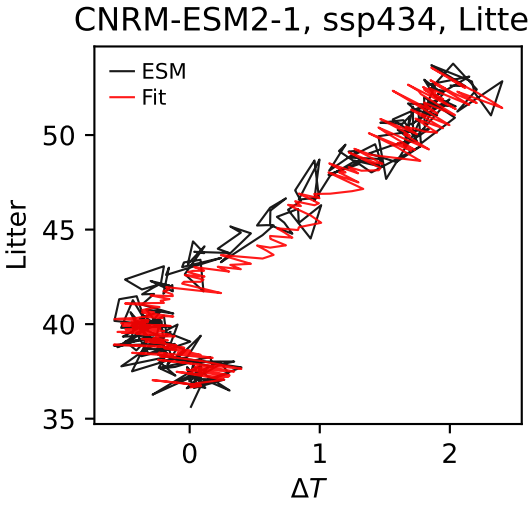

CNRM-ESM2-1, ssp434, GPP, ln(MSE/SIGMA)
611, -0.2731, 808.9215, -0.0096, 0.0026, 0.0925, 0.9872, 0.8193, 0
CNRM-ESM2-1
gpp_hyst
gpp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.5
21.9
21.3
20.7
20.1
19.5
18.9
18.3

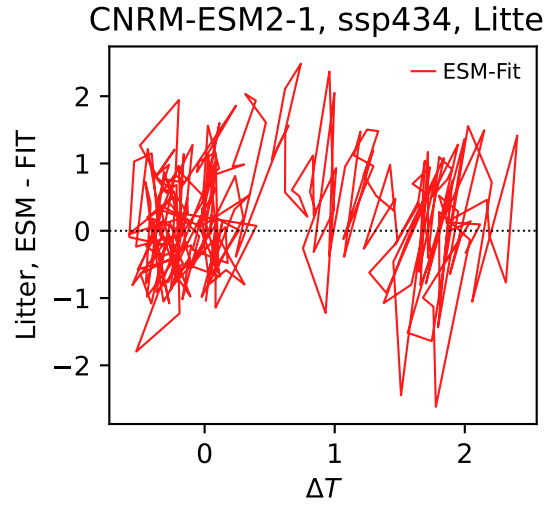

CNRM-ESM2-1, ssp434, GPP, ln(MSE/SIGMA)
611, -0.2731, 808.9215, -0.0096, 0.0026, 0.0925, 0.9872, 0.8193, 0
0.04
0.02
0.00
−0.02
−0.04
gpp_c_tan2
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
gpp_c_tan
20.250
20.205
20.160
20.115
20.070
20.025
19.980
19.935
19.890
19.845

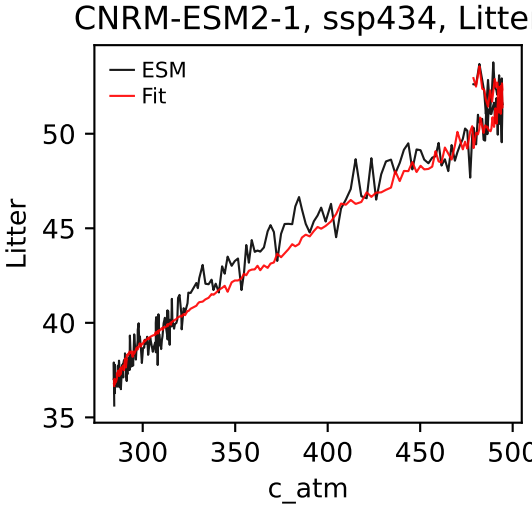

CNRM-ESM2-1, ssp434, GPP, ln(MSE/SIGMA)
611, -0.2731, 808.9215, -0.0096, 0.0026, 0.0925, 0.9872, 0.8193, 0
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
gpp_slow
0.90
0.92
0.94
0.96
0.98
1.00
gpp_fast
CNRM-ESM2
20.305
20.290
20.275
20.260
20.245
20.230
20.215
20.200
20.185
20.170

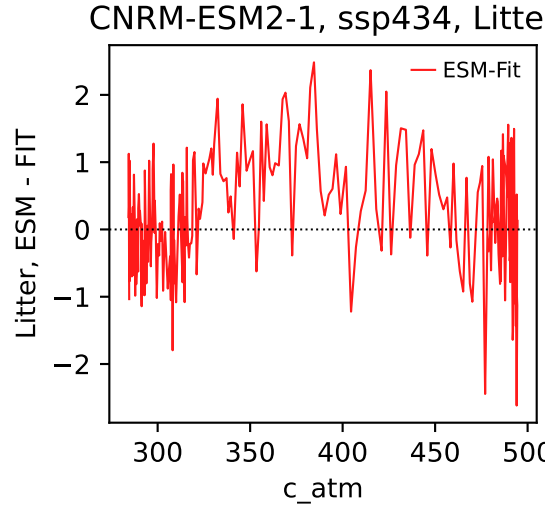

CNRM-ESM2-1, ssp434, Litter
ESM
Fit
Litter
Year

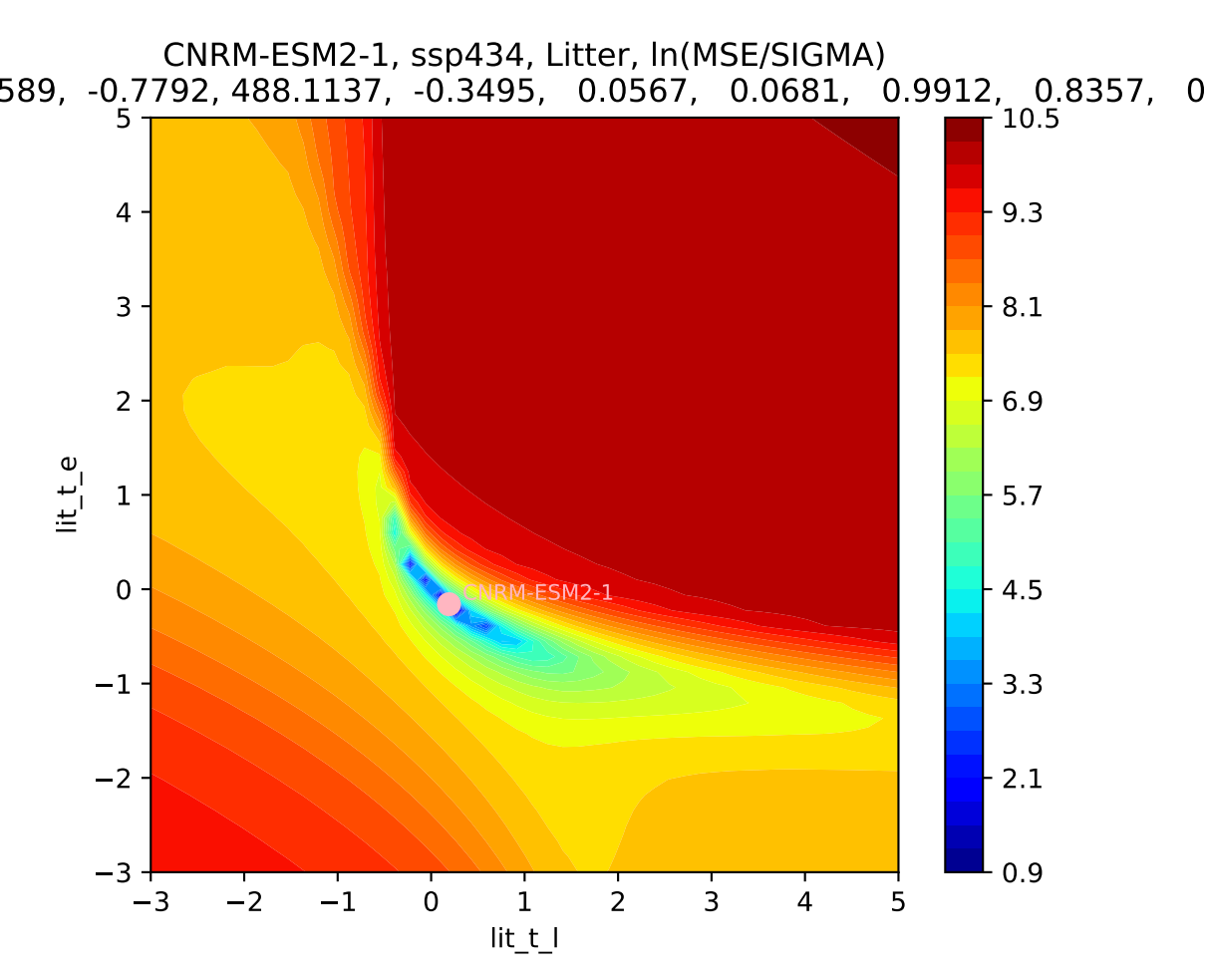

CNRM-ESM2-1, ssp434, Litter
ESM-Fit
Litter, ESM - FIT
Year

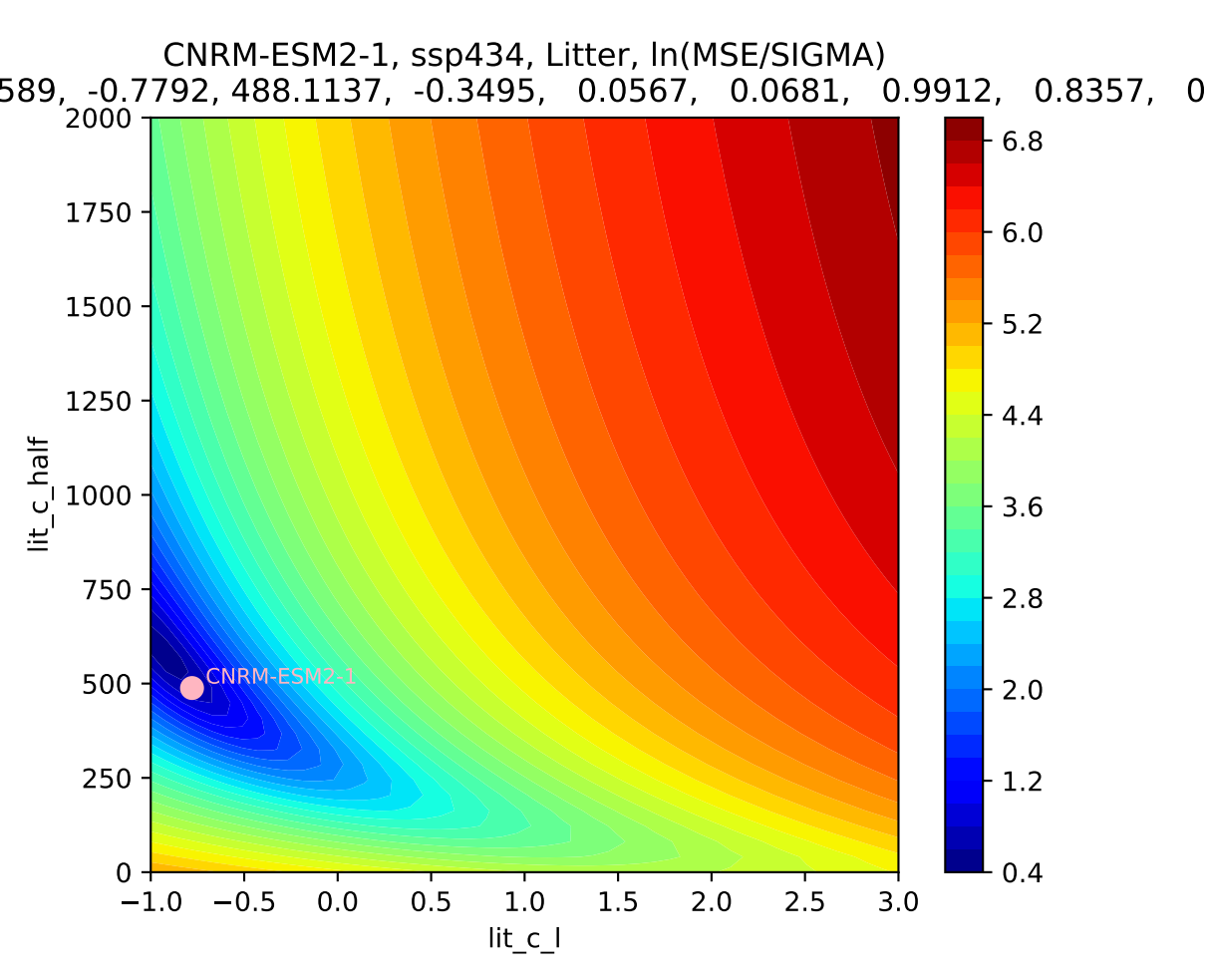

CNRM-ESM2-1, ssp434, Litter
ESM
Fit
Litter
ΔT

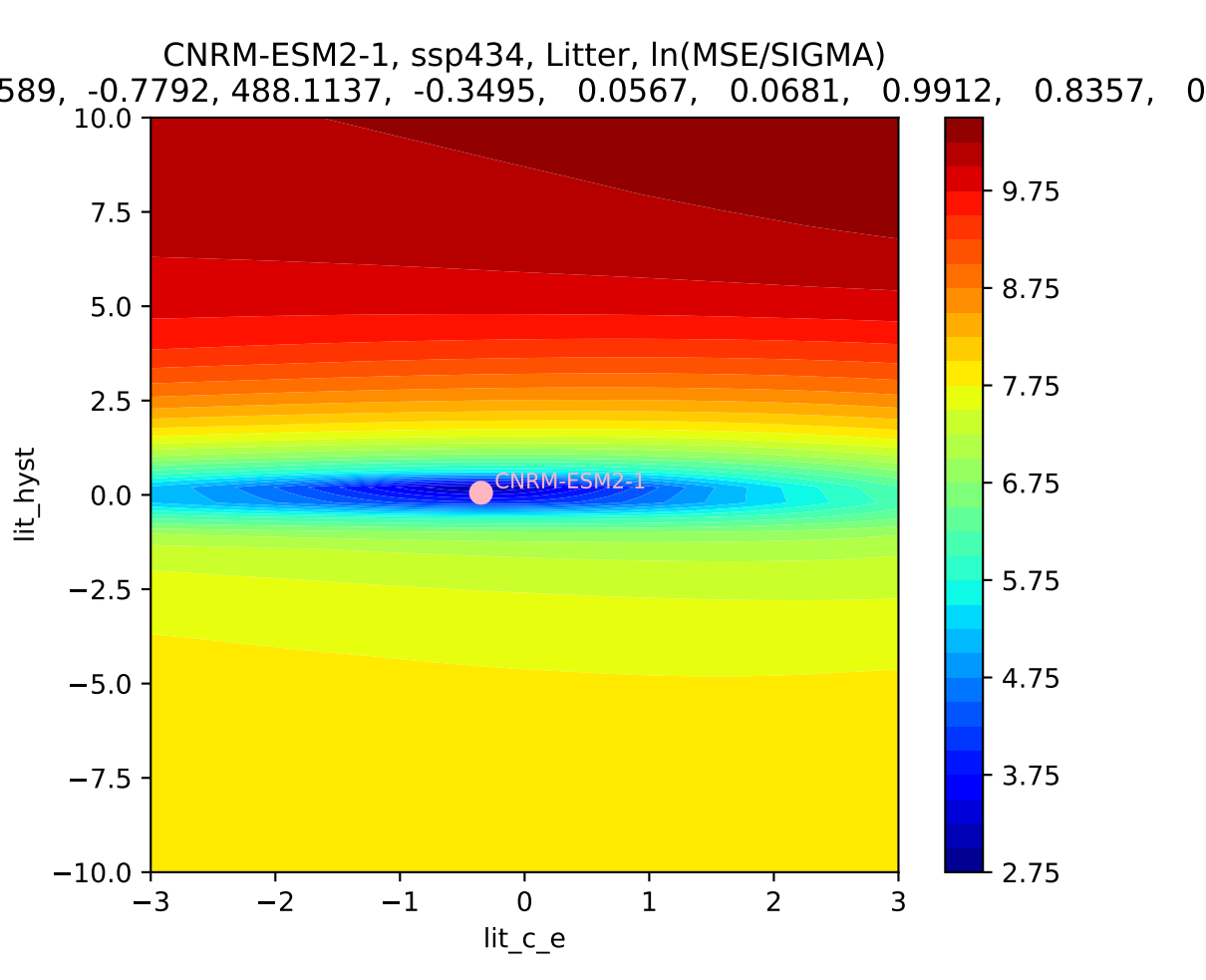

CNRM-ESM2-1, ssp434, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

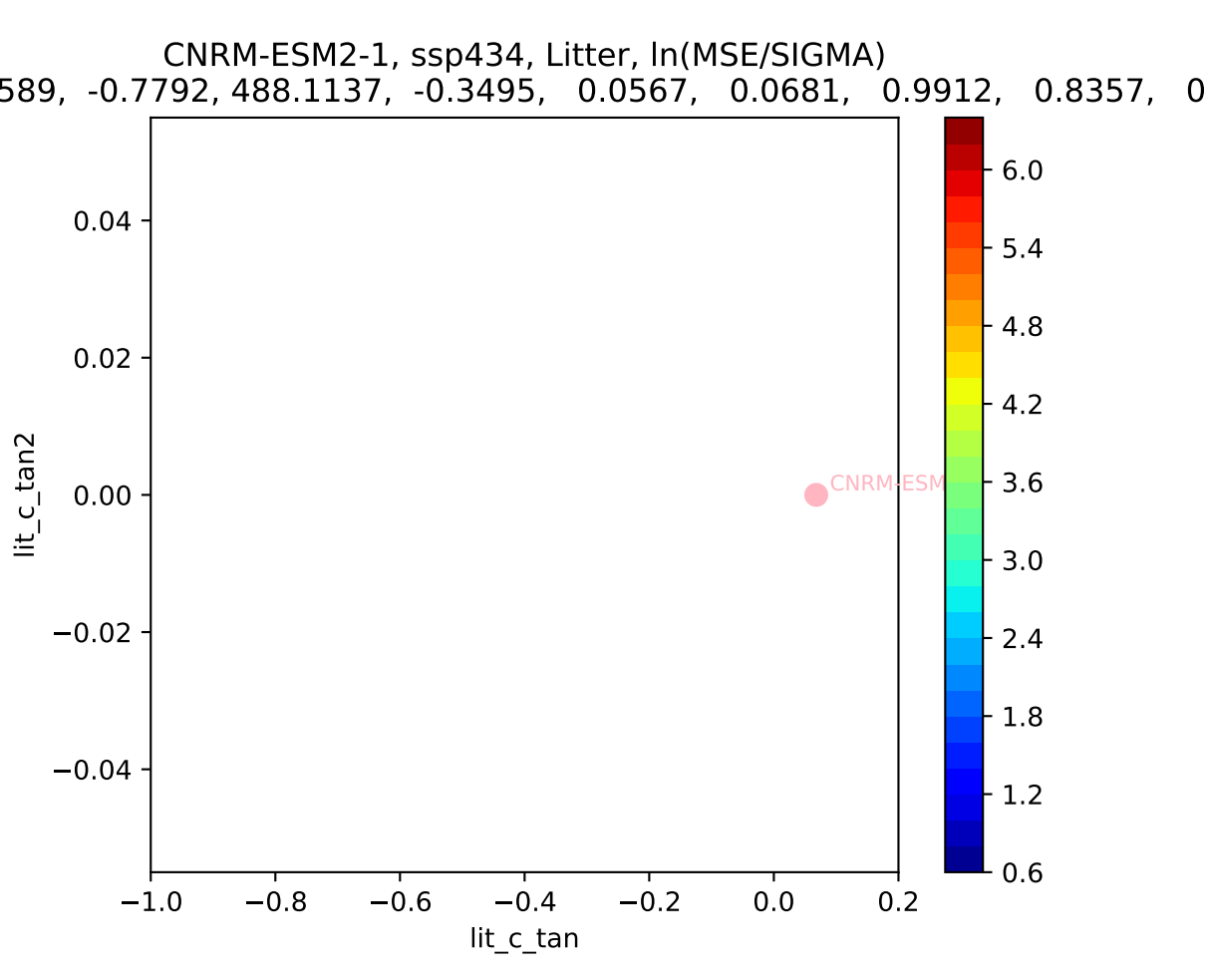

CNRM-ESM2-1, ssp434, Litter
ESM
Fit
Litter
c_atm

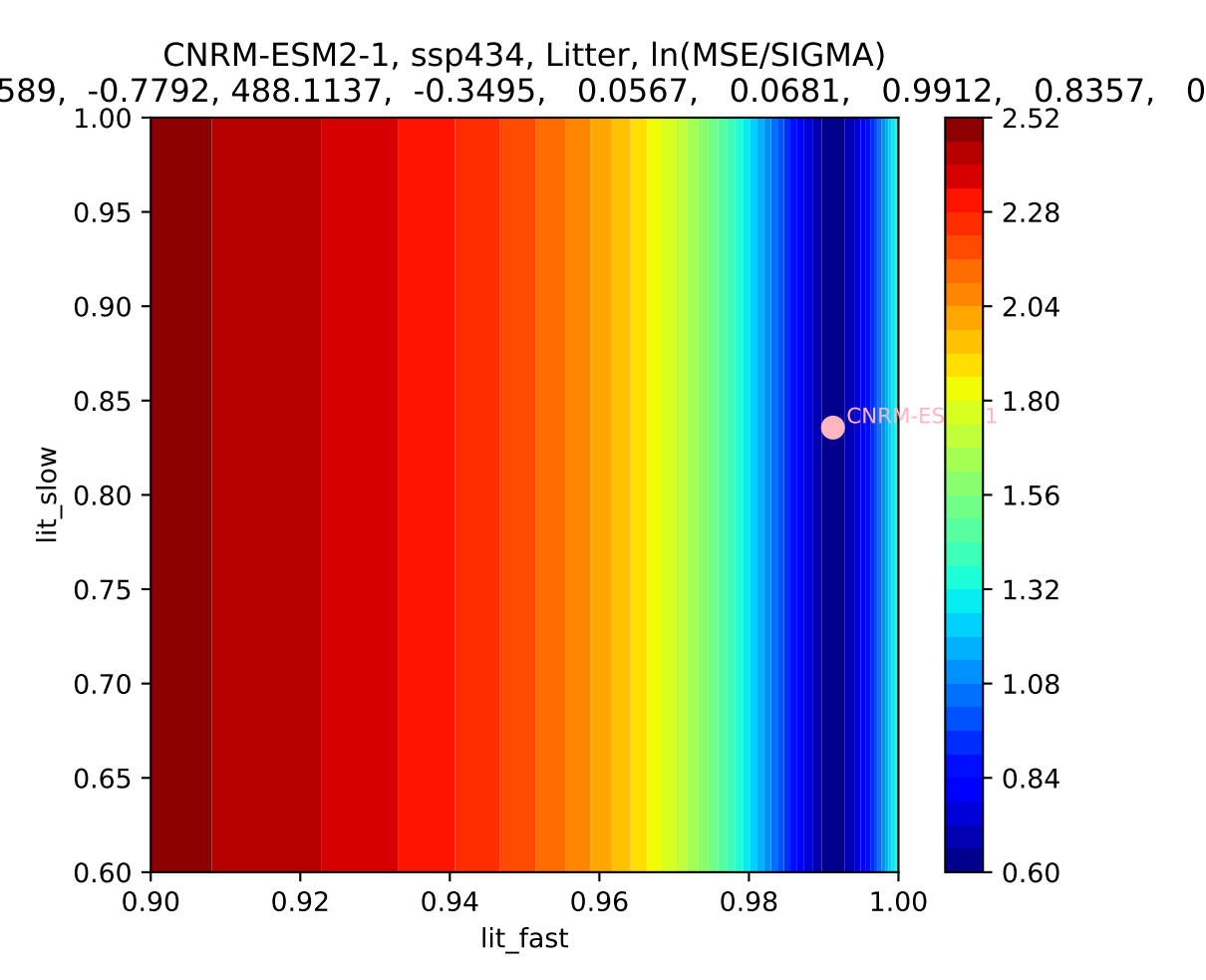

CNRM-ESM2-1, ssp434, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

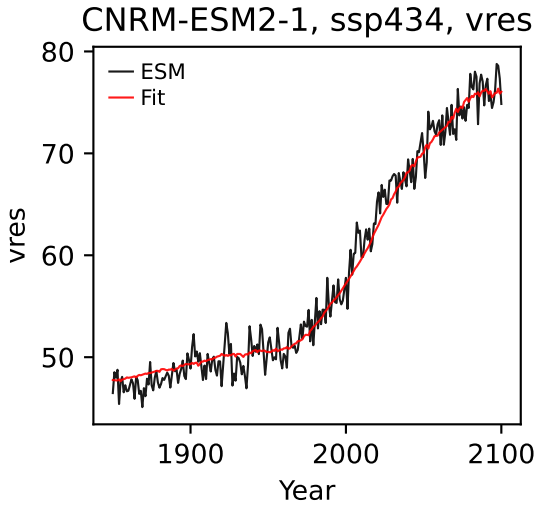

CNRM-ESM2-1, ssp434, Litter, ln(MSE/SIGMA)
589, -0.7792, 488.1137, -0.3495, 0.0567, 0.0681, 0.9912, 0.8357, 0
CNRM-ESM2-1
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
10.5
9.3
8.1
6.9
5.7
4.5
3.3
2.1
0.9

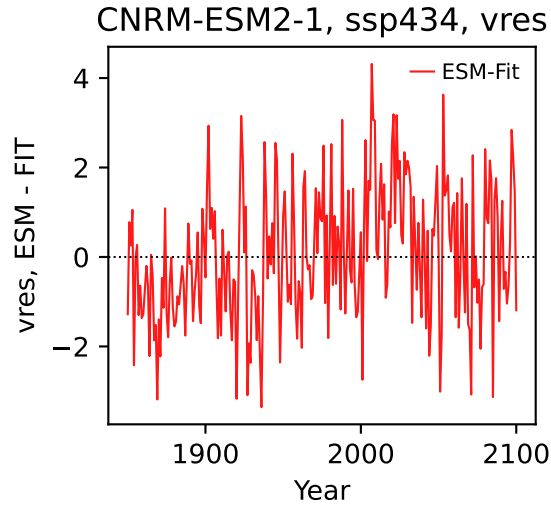

CNRM-ESM2-1, ssp434, Litter, ln(MSE/SIGMA)
589, -0.7792, 488.1137, -0.3495, 0.0567, 0.0681, 0.9912, 0.8357, 0
2000
1750
1500
1250
1000
750
500
250
0
lit_c_half
CNRM-ESM2-1
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
lit_c_l
6.8
6.0
5.2
4.4
3.6
2.8
2.0
1.2
0.4

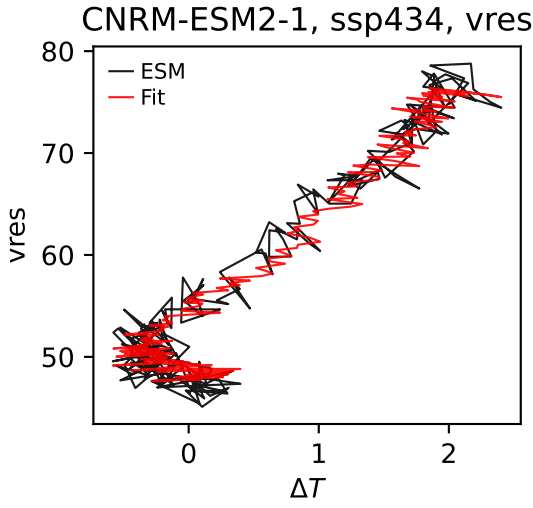

CNRM-ESM2-1, ssp434, Litter, ln(MSE/SIGMA)
589, -0.7792, 488.1137, -0.3495, 0.0567, 0.0681, 0.9912, 0.8357, 0
CNRM-ESM2-1
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
9.75
8.75
7.75
6.75
5.75
4.75
3.75
2.75

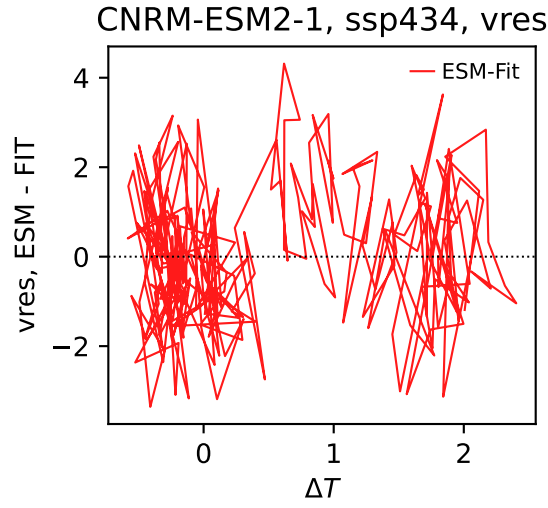

CNRM-ESM2-1, ssp434, Litter, ln(MSE/SIGMA)
589, -0.7792, 488.1137, -0.3495, 0.0567, 0.0681, 0.9912, 0.8357, 0
0.04
0.02
0.00
−0.02
−0.04
lit_c_tan2
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
lit_c_tan
6.0
5.4
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6

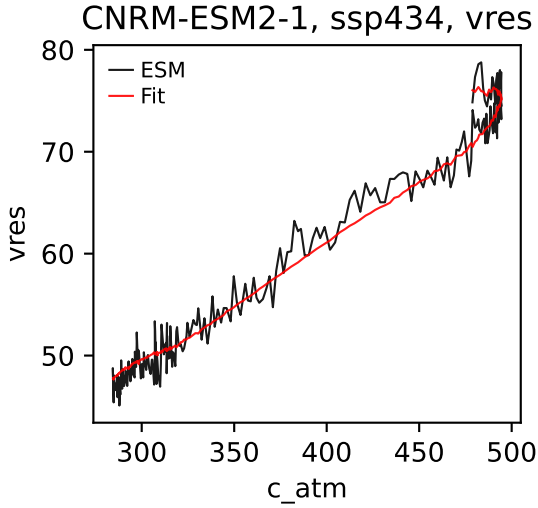

CNRM-ESM2-1, ssp434, Litter, ln(MSE/SIGMA)
589, -0.7792, 488.1137, -0.3495, 0.0567, 0.0681, 0.9912, 0.8357, 0
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
lit_slow
0.90
0.92
0.94
0.96
0.98
1.00
lit_fast
2.52
2.28
2.04
1.80
1.56
1.32
1.08
0.84
0.60

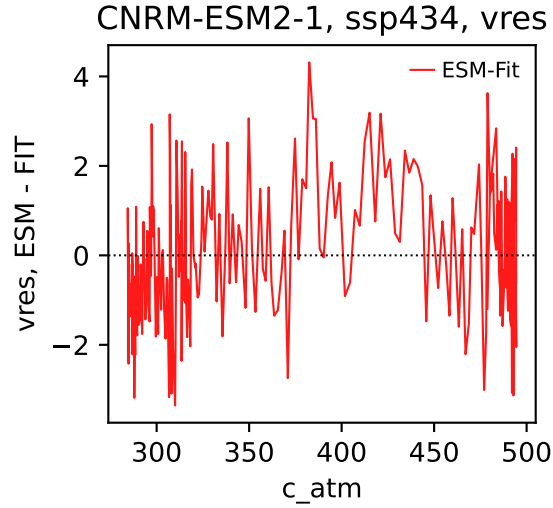

CNRM-ESM2-1, ssp434, vres
ESM
Fit
vres
Year
80
70
60
50
1900
2000
2100

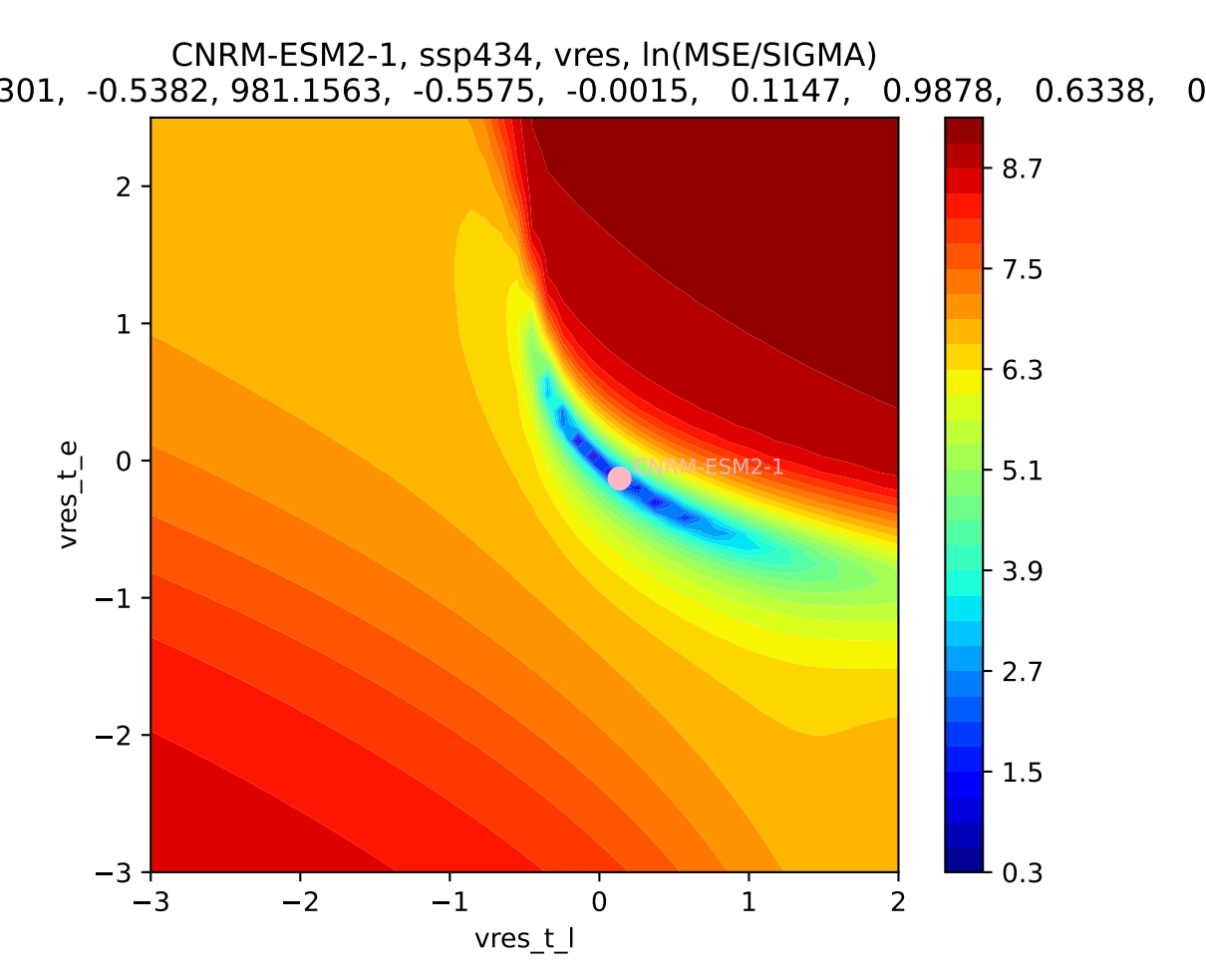

CNRM-ESM2-1, ssp434, vres
ESM-Fit
vres, ESM - FIT
Year
4
2
0
−2
1900
2000
2100

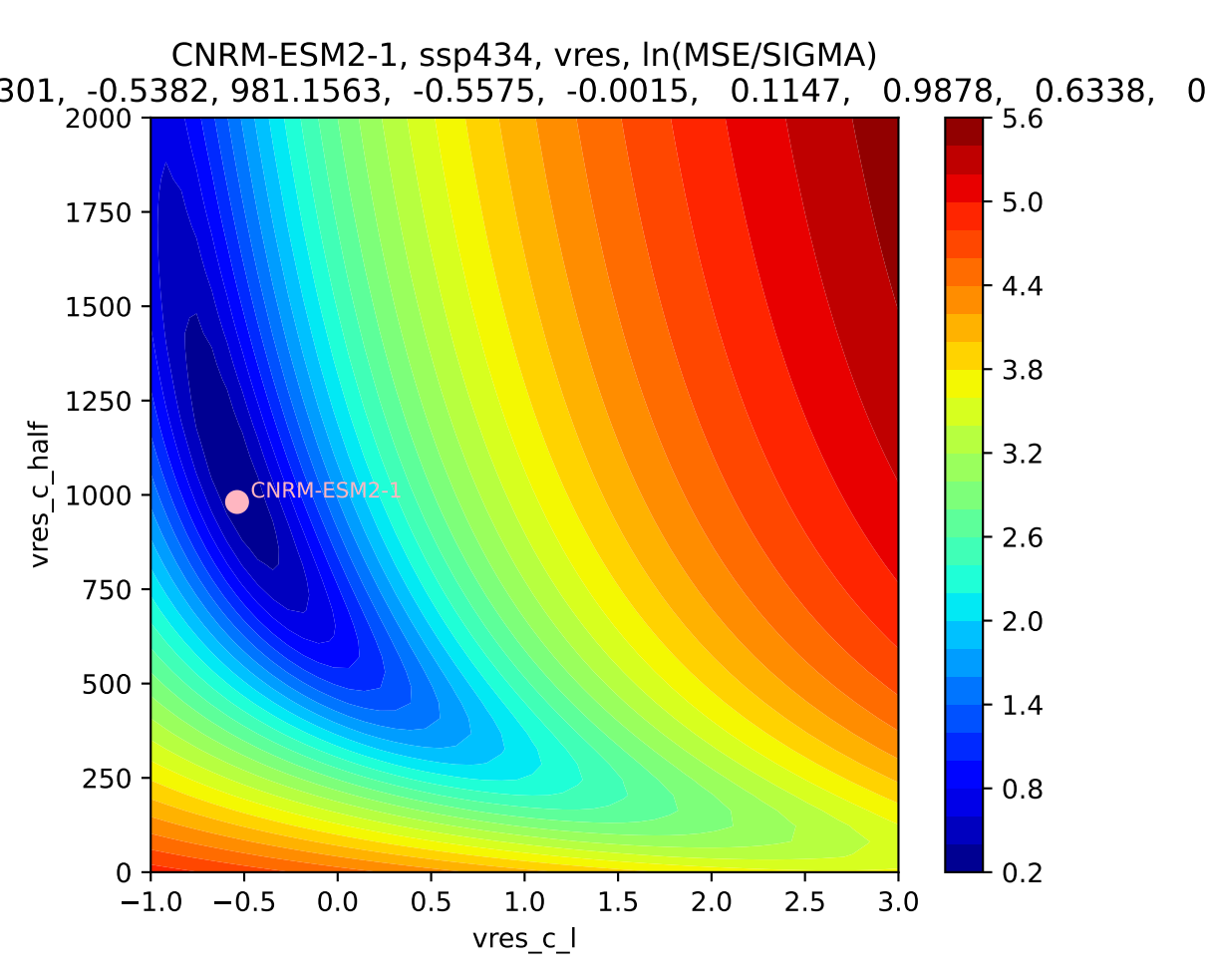

CNRM-ESM2-1, ssp434, vres
ESM
Fit
vres
ΔT
80
70
60
50
0
1
2

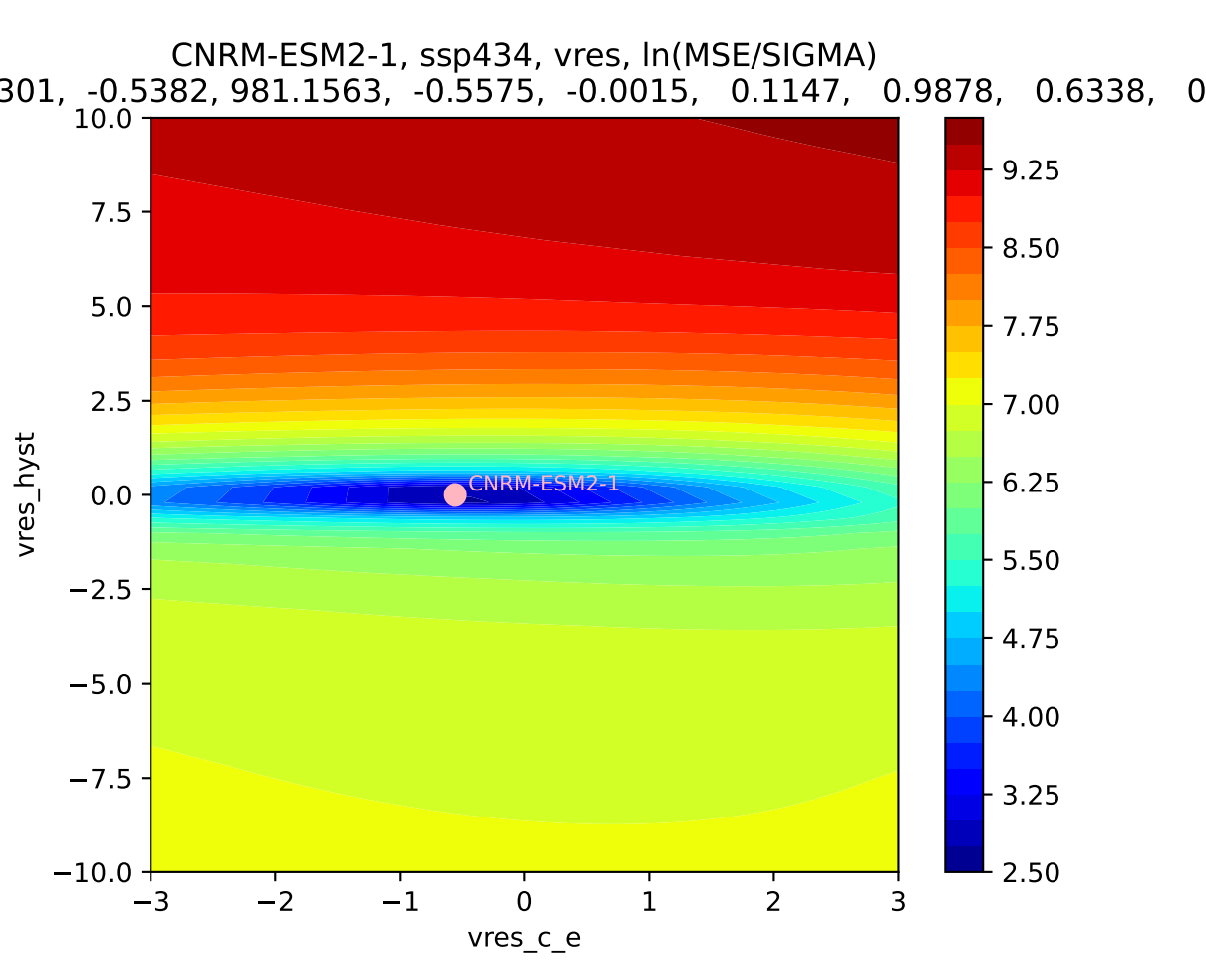

CNRM-ESM2-1, ssp434, vres
ESM-Fit
vres, ESM - FIT
ΔT
4
2
0
−2
0
1
2

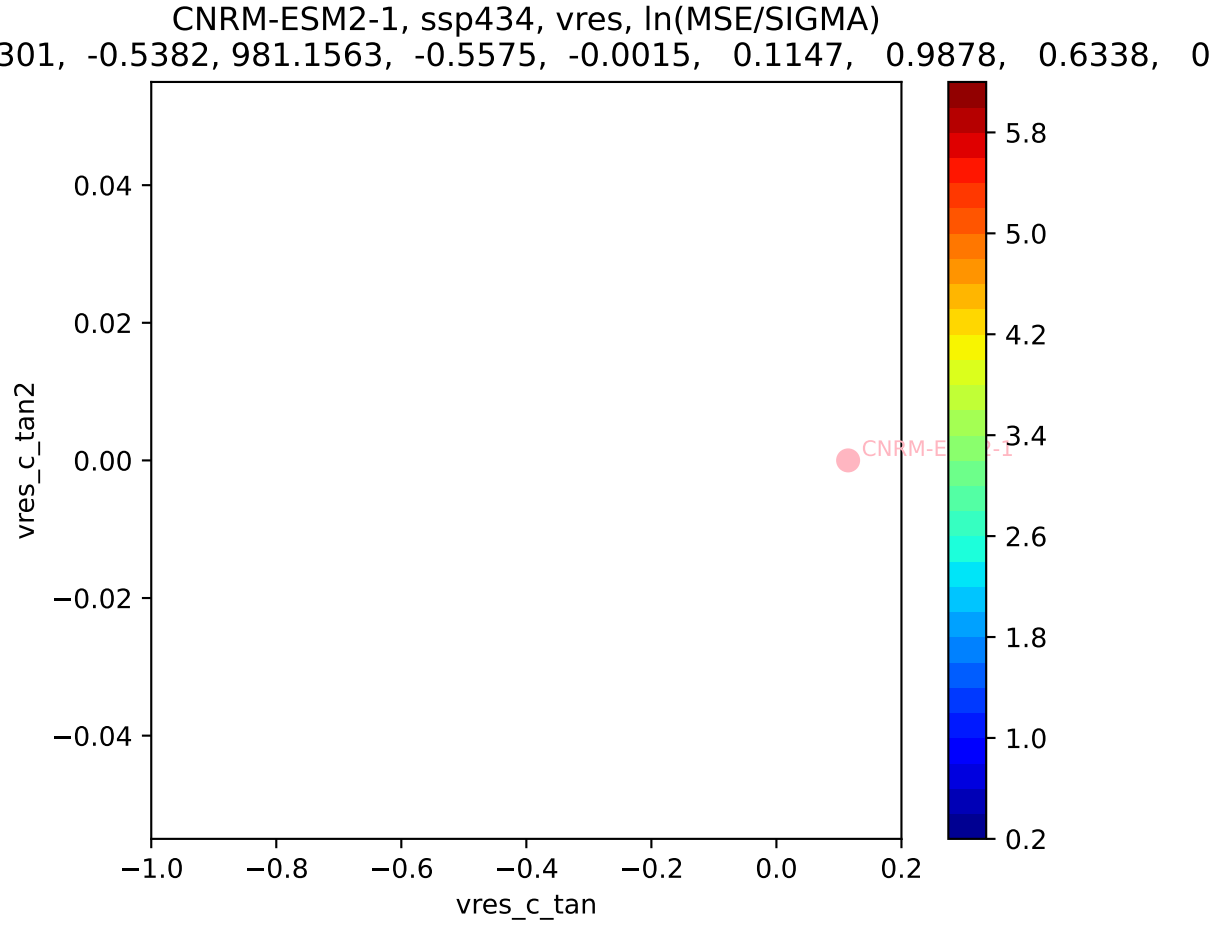

CNRM-ESM2-1, ssp434, vres
ESM
Fit
vres
c_atm
80
70
60
50
300
350
400
450
500

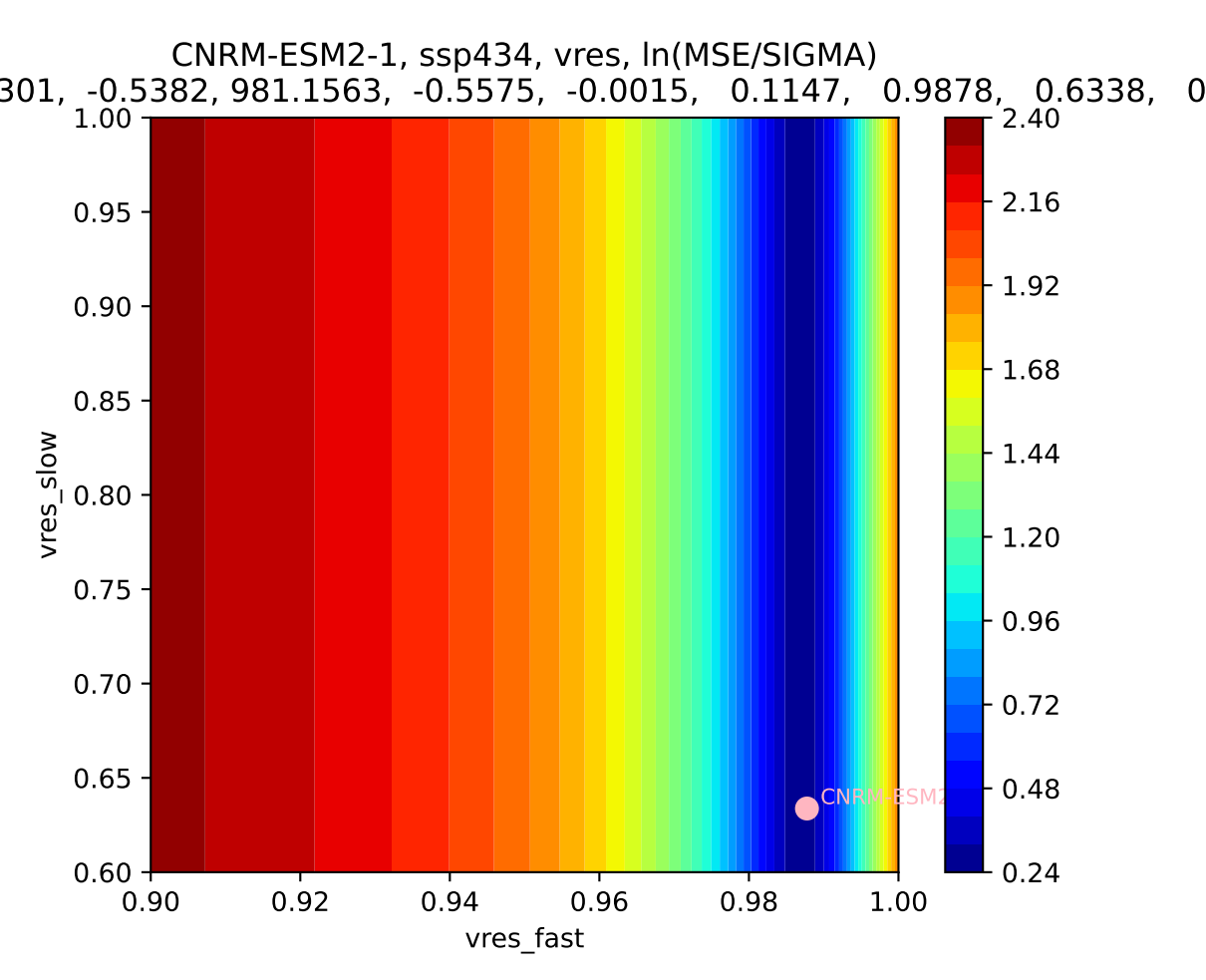

CNRM-ESM2-1, ssp434, vres
ESM-Fit
vres, ESM - FIT
c_atm
4
2
0
−2
300
350
400
450
500

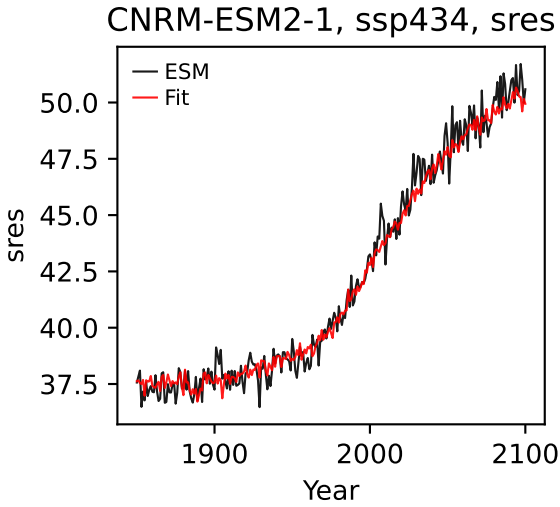

CNRM-ESM2-1, ssp434, vres, ln(MSE/SIGMA)
301, -0.5382, 981.1563, -0.5575, -0.0015, 0.1147, 0.9878, 0.6338, 0
CNRM-ESM2-1
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
8.7
7.5
6.3
5.1
3.9
2.7
1.5
0.3

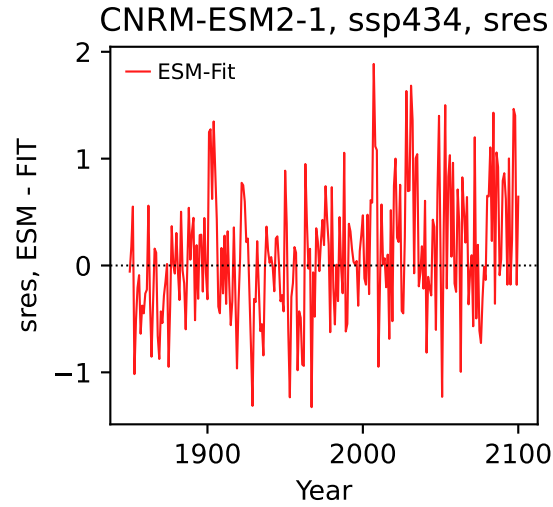

CNRM-ESM2-1, ssp434, vres, ln(MSE/SIGMA)
301, -0.5382, 981.1563, -0.5575, -0.0015, 0.1147, 0.9878, 0.6338, 0
CNRM-ESM2-1
vres_c_half
vres_c_l
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
5.6
5.0
4.4
3.8
3.2
2.6
2.0
1.4
0.8
0.2

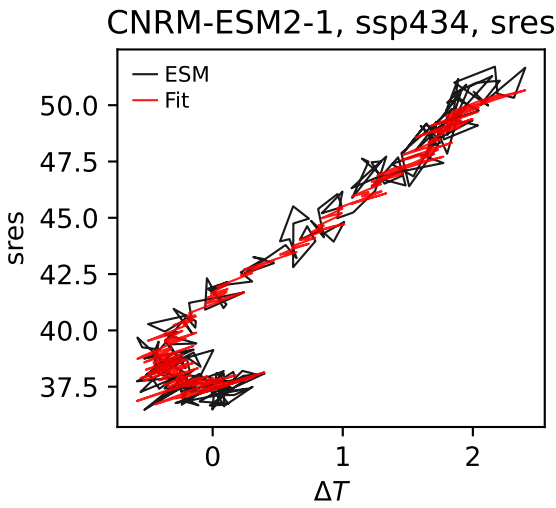

CNRM-ESM2-1, ssp434, vres, ln(MSE/SIGMA)
301, -0.5382, 981.1563, -0.5575, -0.0015, 0.1147, 0.9878, 0.6338, 0
CNRM-ESM2-1
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
9.25
8.50
7.75
7.00
6.25
5.50
4.75
4.00
3.25
2.50

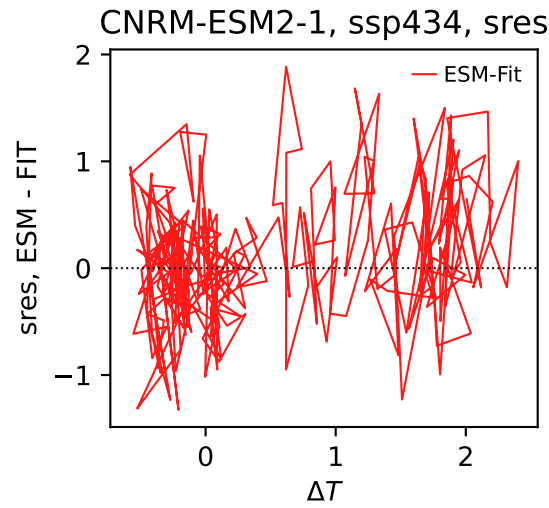

CNRM-ESM2-1, ssp434, vres, ln(MSE/SIGMA)
301, -0.5382, 981.1563, -0.5575, -0.0015, 0.1147, 0.9878, 0.6338, 0
0.04
0.02
0.00
−0.02
−0.04
vres_c_tan2
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
vres_c_tan
5.8
5.0
4.2
3.4
2.6
1.8
1.0
0.2

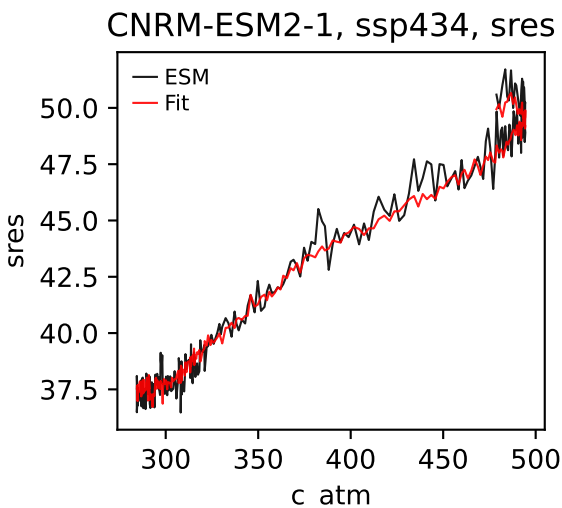

CNRM-ESM2-1, ssp434, vres, ln(MSE/SIGMA)
301, -0.5382, 981.1563, -0.5575, -0.0015, 0.1147, 0.9878, 0.6338, 0
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
vres_slow
0.90
0.92
0.94
0.96
0.98
1.00
vres_fast
2.40
2.16
1.92
1.68
1.44
1.20
0.96
0.72
0.48
0.24
CNRM-ESM2

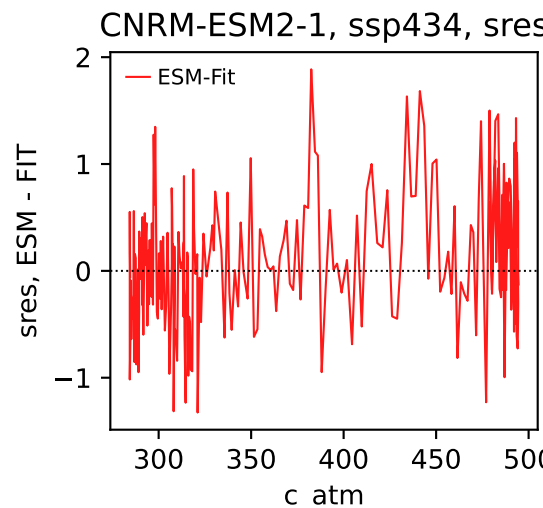

CNRM-ESM2-1, ssp434, sres
ESM
Fit
sres
50.0
47.5
45.0
42.5
40.0
37.5
1900
2000
2100
Year

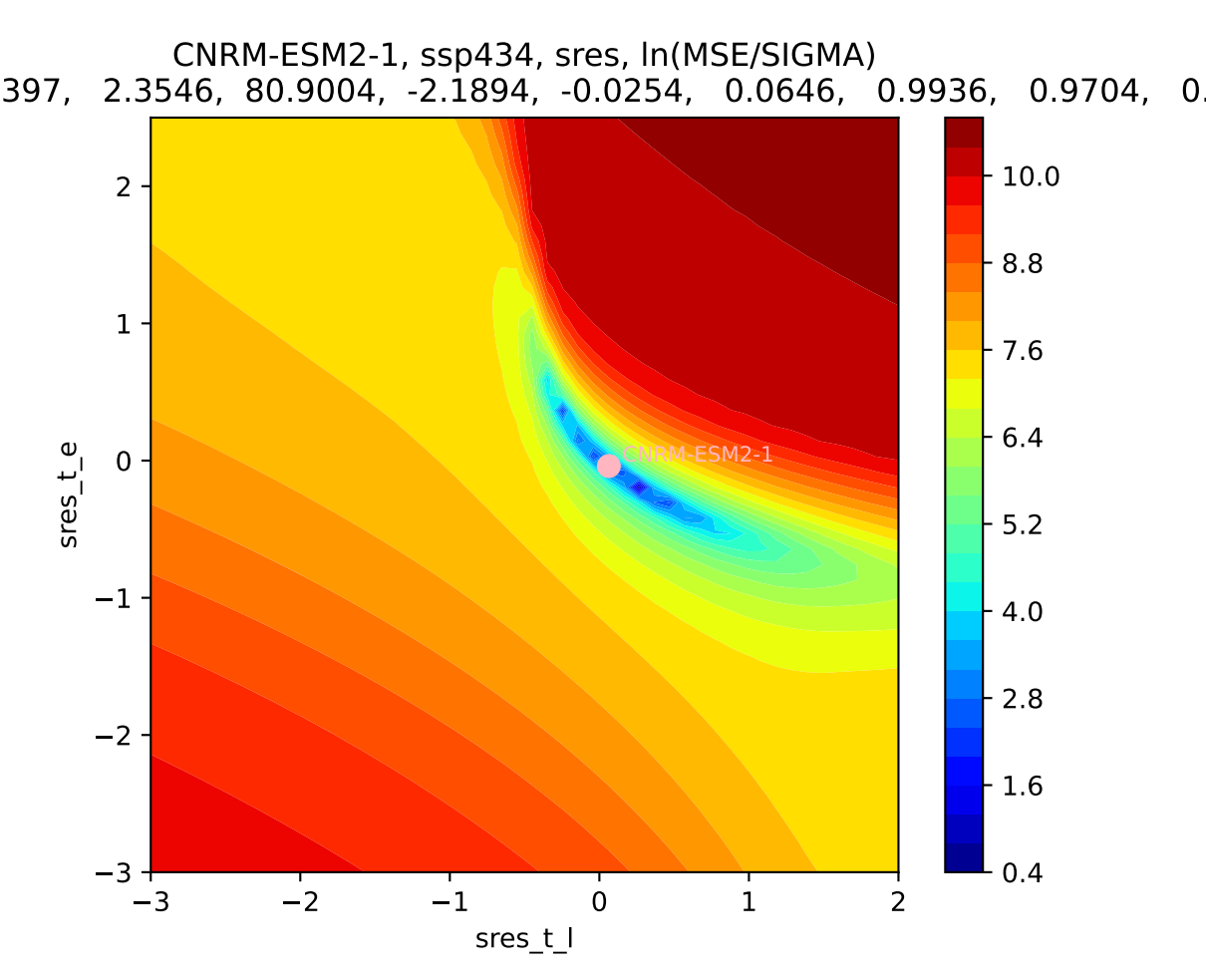

CNRM-ESM2-1, ssp434, sres
ESM-Fit
sres, ESM - FIT
2
1
0
−1
1900
2000
2100
Year

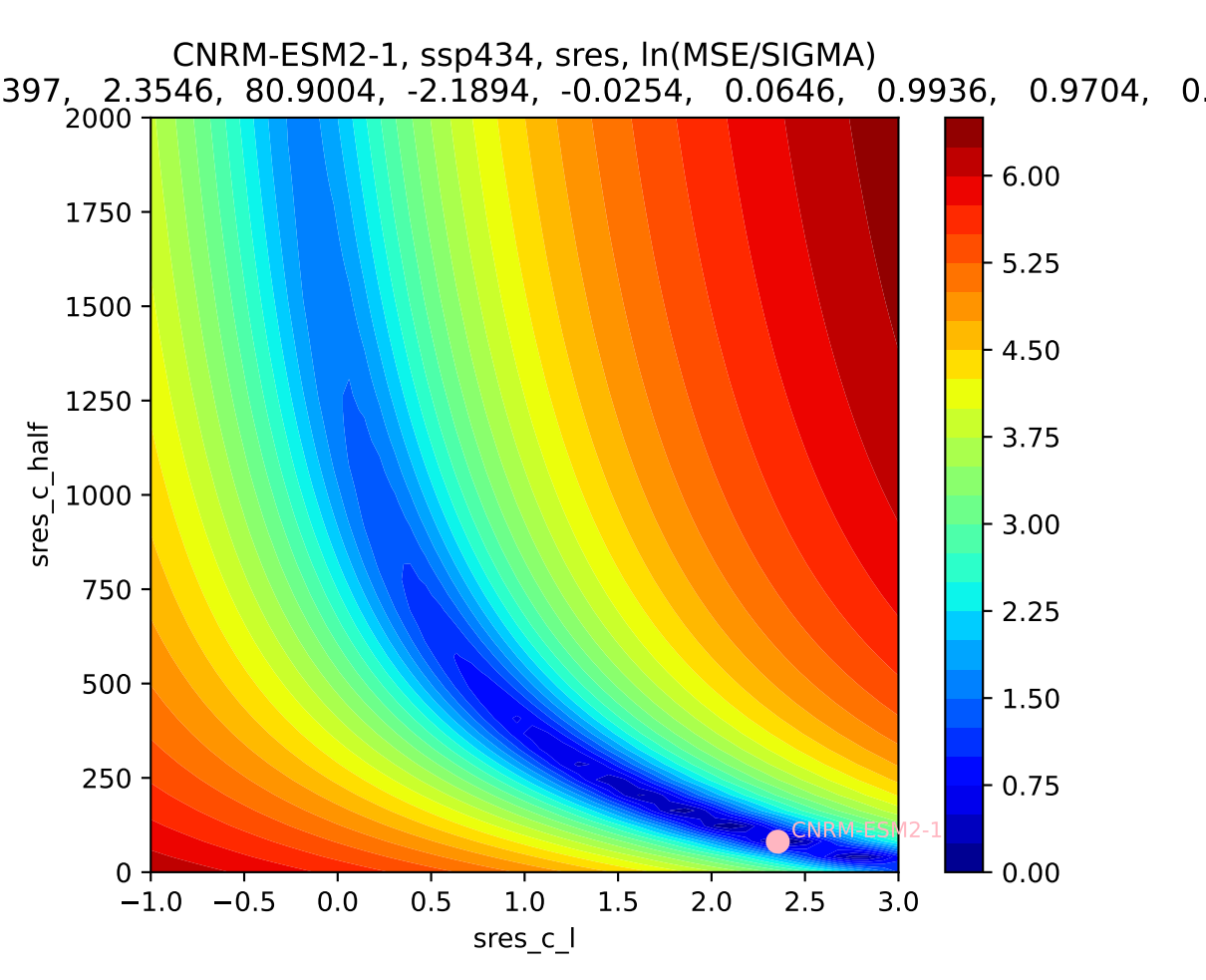

CNRM-ESM2-1, ssp434, sres
ESM
Fit
sres
50.0
47.5
45.0
42.5
40.0
37.5
0
1
2
ΔT

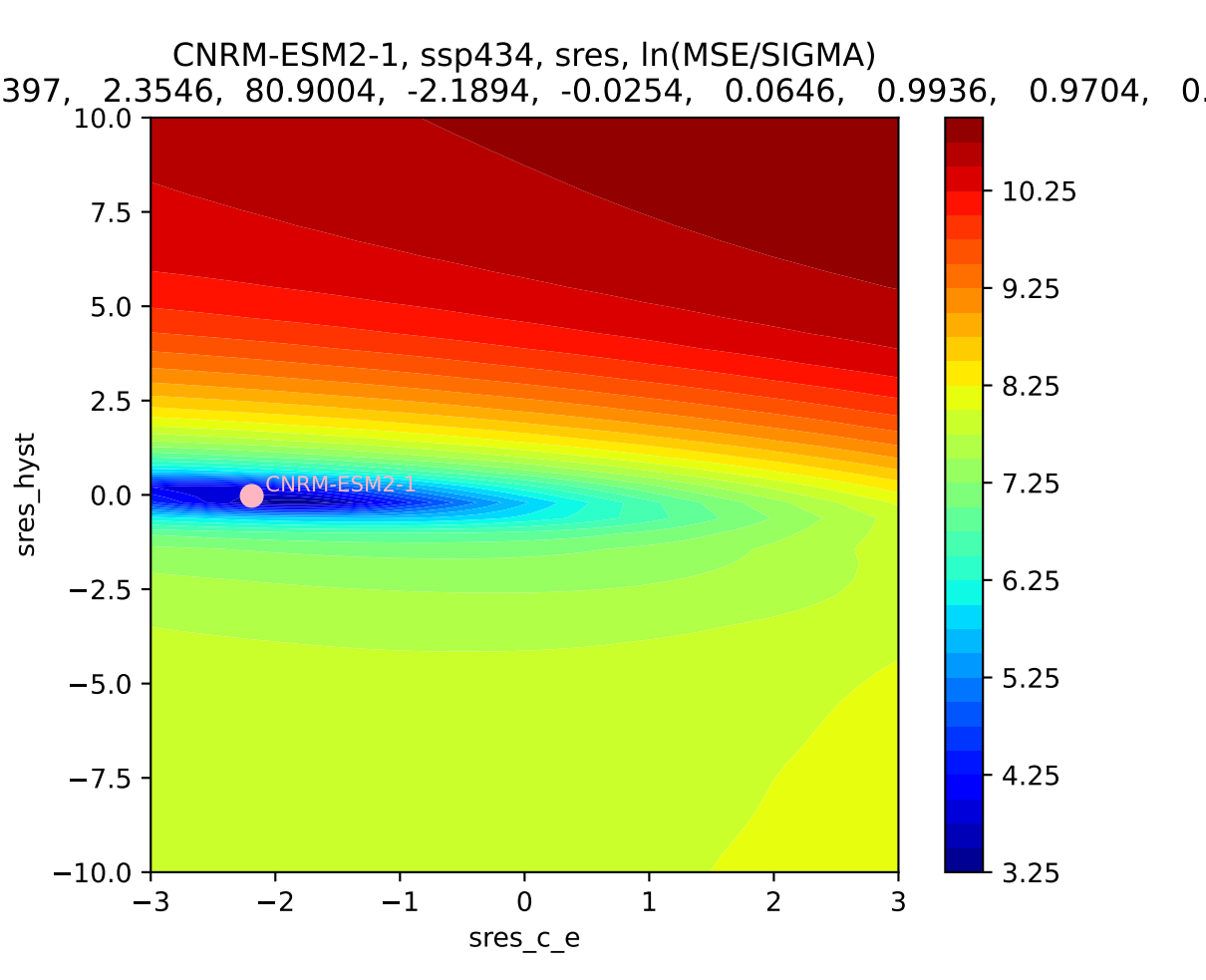

CNRM-ESM2-1, ssp434, sres
ESM-Fit
sres, ESM - FIT
2
1
0
−1
0
1
2
ΔT

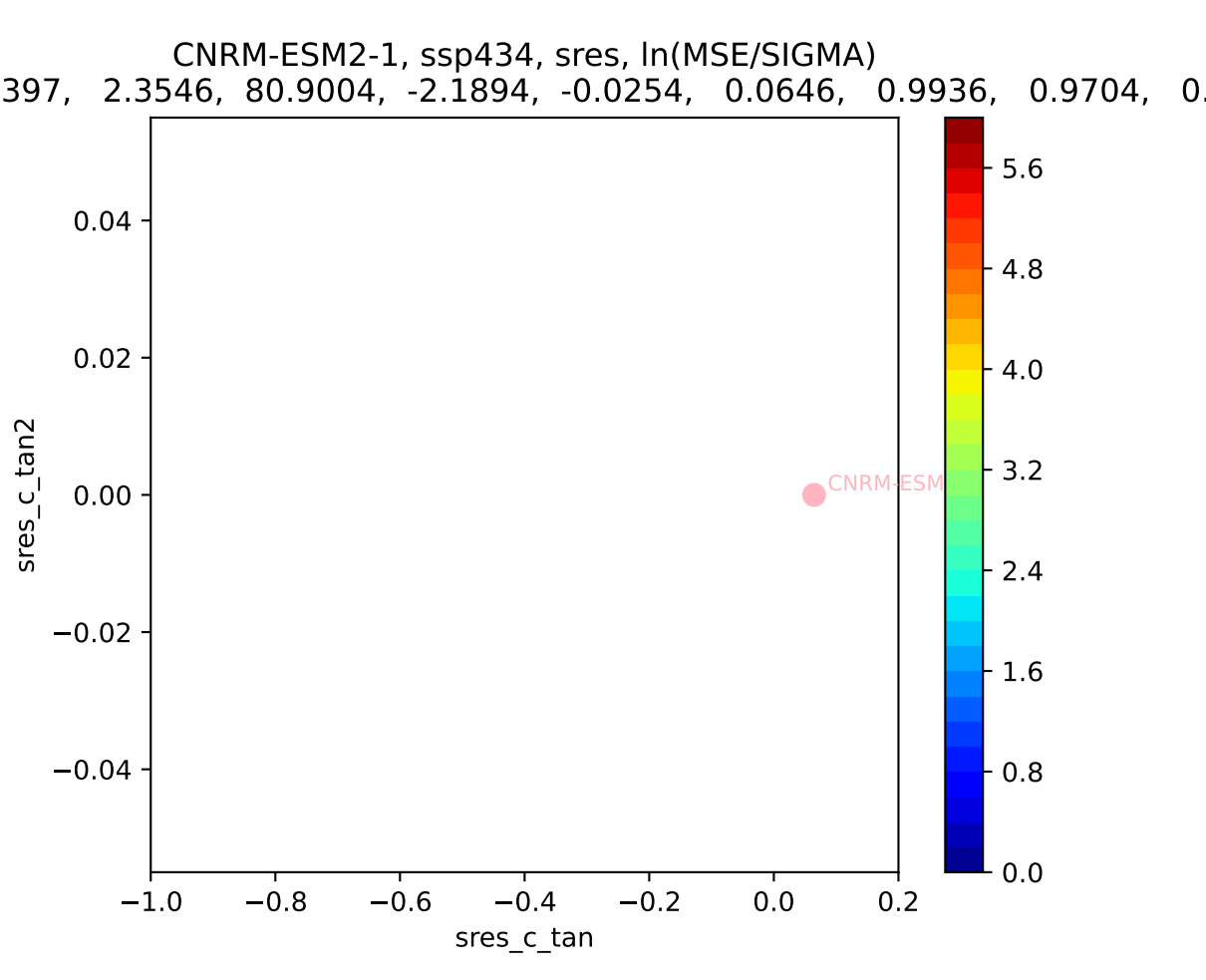

CNRM-ESM2-1, ssp434, sres
ESM
Fit
sres
50.0
47.5
45.0
42.5
40.0
37.5
300
350
400
450
500
c_atm

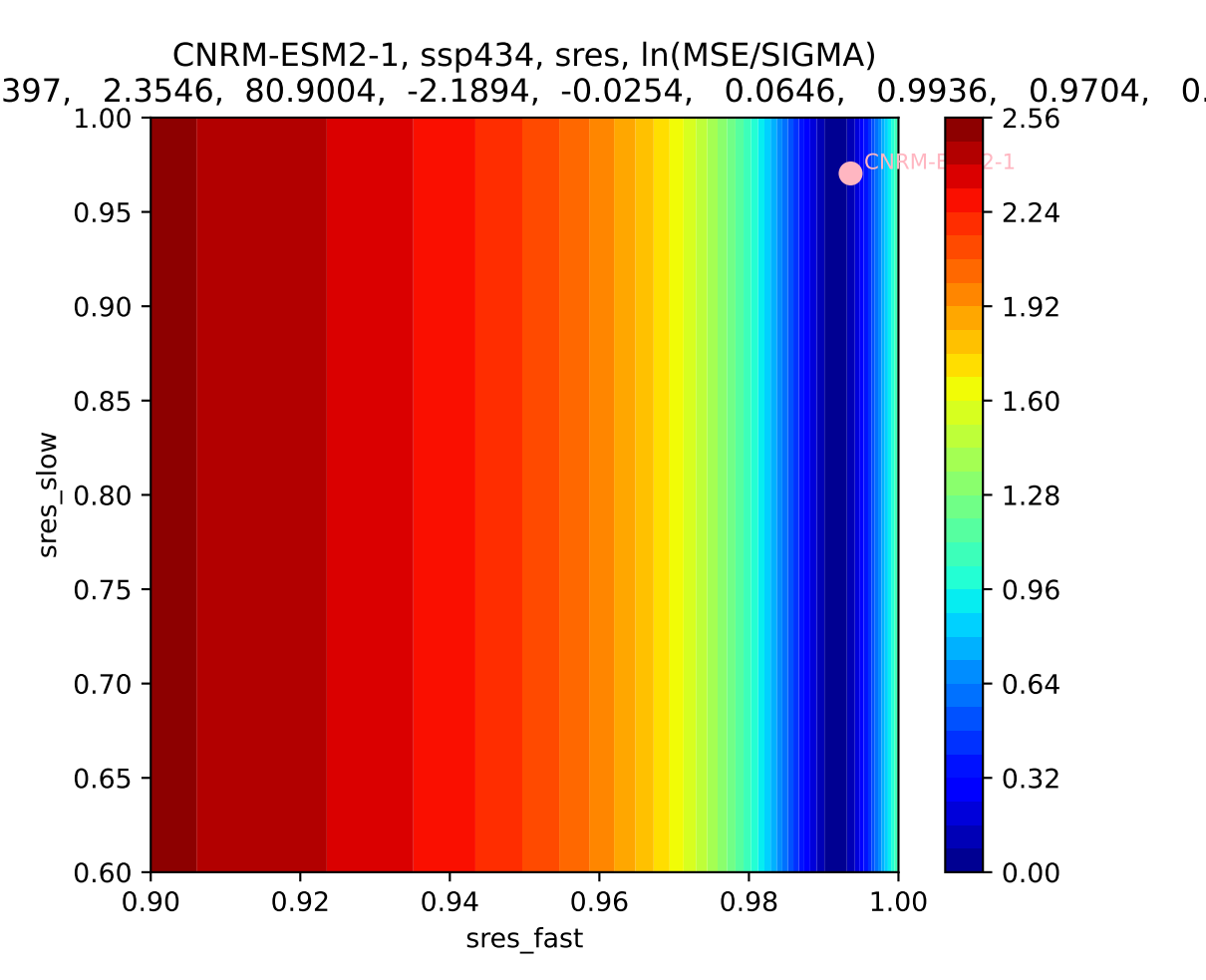

CNRM-ESM2-1, ssp434, sres
ESM-Fit
sres, ESM - FIT
2
1
0
−1
300
350
400
450
500
c_atm

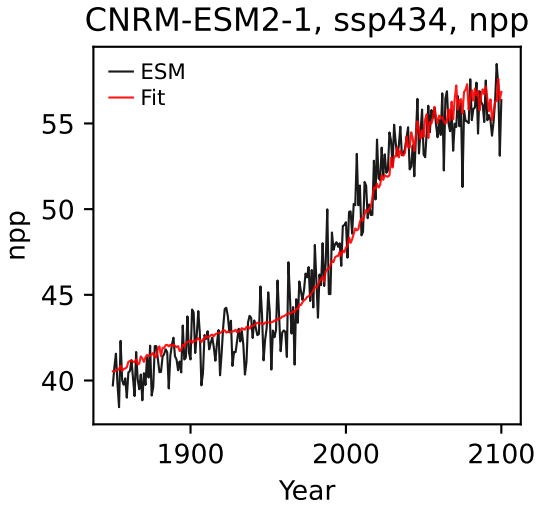

CNRM-ESM2-1, ssp434, sres, ln(MSE/SIGMA)
397, 2.3546, 80.9004, -2.1894, -0.0254, 0.0646, 0.9936, 0.9704, 0.
CNRM-ESM2-1
sres_t_e
sres_t_l
2
1
0
−1
−2
−3
10.0
8.8
7.6
6.4
5.2
4.0
2.8
1.6
0.4

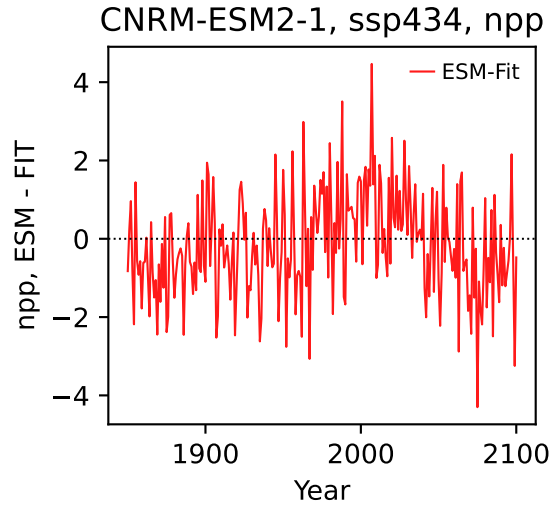

CNRM-ESM2-1, ssp434, sres, ln(MSE/SIGMA)
397, 2.3546, 80.9004, -2.1894, -0.0254, 0.0646, 0.9936, 0.9704, 0.
sres_c_half
sres_c_l
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
6.00
5.25
4.50
3.75
3.00
2.25
1.50
0.75
0.00
CNRM-ESM2-1

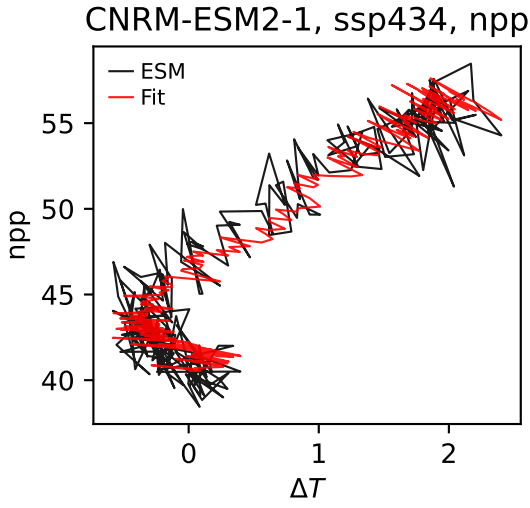

CNRM-ESM2-1, ssp434, sres, ln(MSE/SIGMA)
397, 2.3546, 80.9004, -2.1894, -0.0254, 0.0646, 0.9936, 0.9704, 0.
CNRM-ESM2-1
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.25
9.25
8.25
7.25
6.25
5.25
4.25
3.25

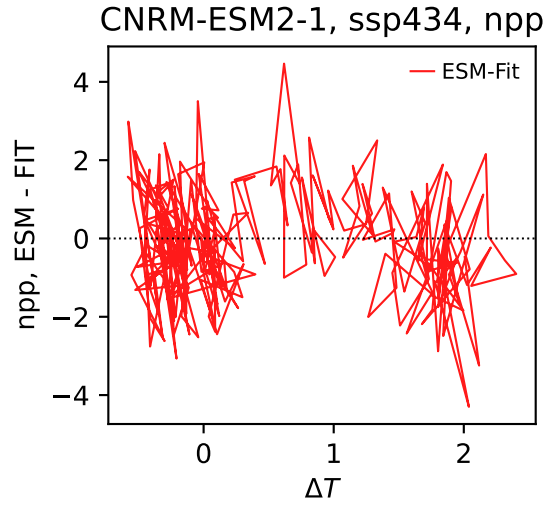

CNRM-ESM2-1, ssp434, sres, ln(MSE/SIGMA)
397, 2.3546, 80.9004, -2.1894, -0.0254, 0.0646, 0.9936, 0.9704, 0.
sres_c_tan2
sres_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
5.6
4.8
4.0
3.2
2.4
1.6
0.8
0.0
CNRM-ESM

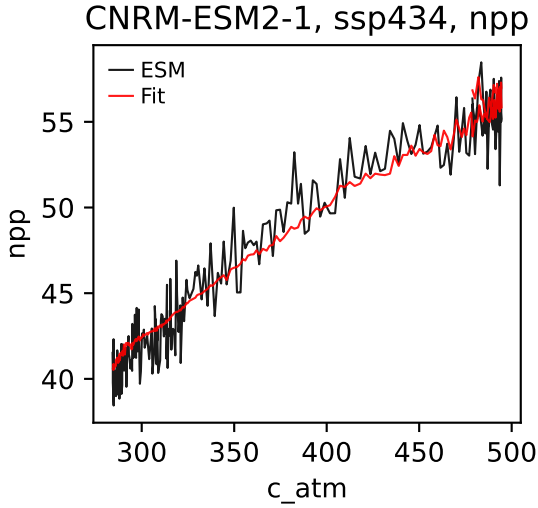

CNRM-ESM2-1, ssp434, sres, ln(MSE/SIGMA)
397, 2.3546, 80.9004, -2.1894, -0.0254, 0.0646, 0.9936, 0.9704, 0.
CNRM-E 2-1
sres_slow
sres_fast
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.90
0.92
0.94
0.96
0.98
1.00
2.56
2.24
1.92
1.60
1.28
0.96
0.64
0.32
0.00

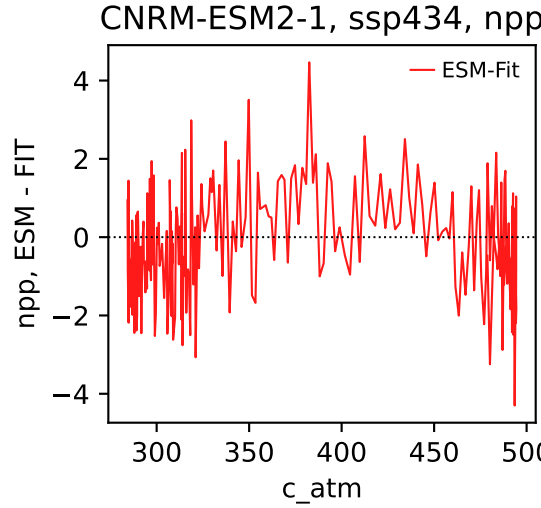

CNRM-ESM2-1, ssp434, npp
ESM
Fit
npp
Year

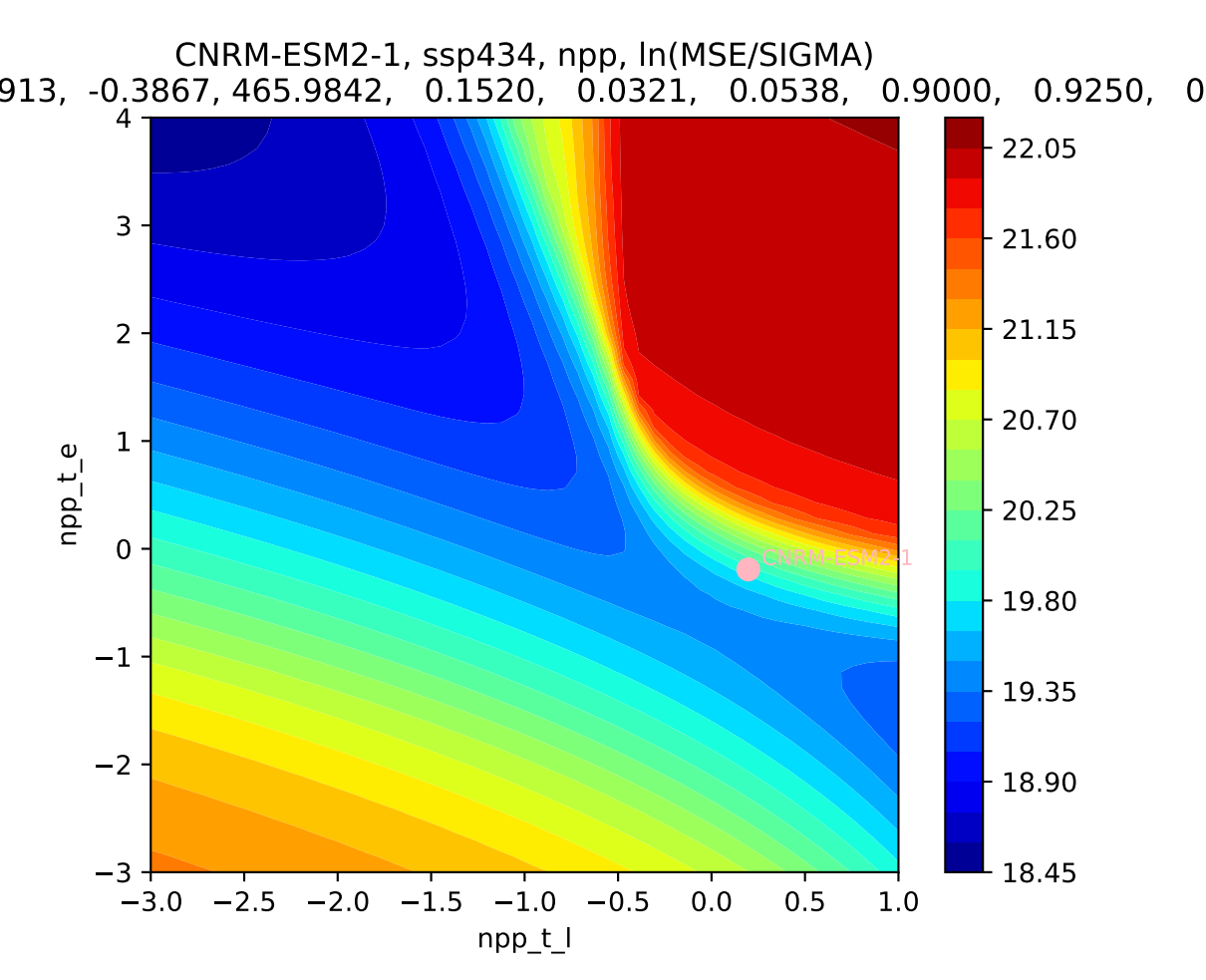

CNRM-ESM2-1, ssp434, npp
ESM-Fit
npp, ESM - FIT
Year

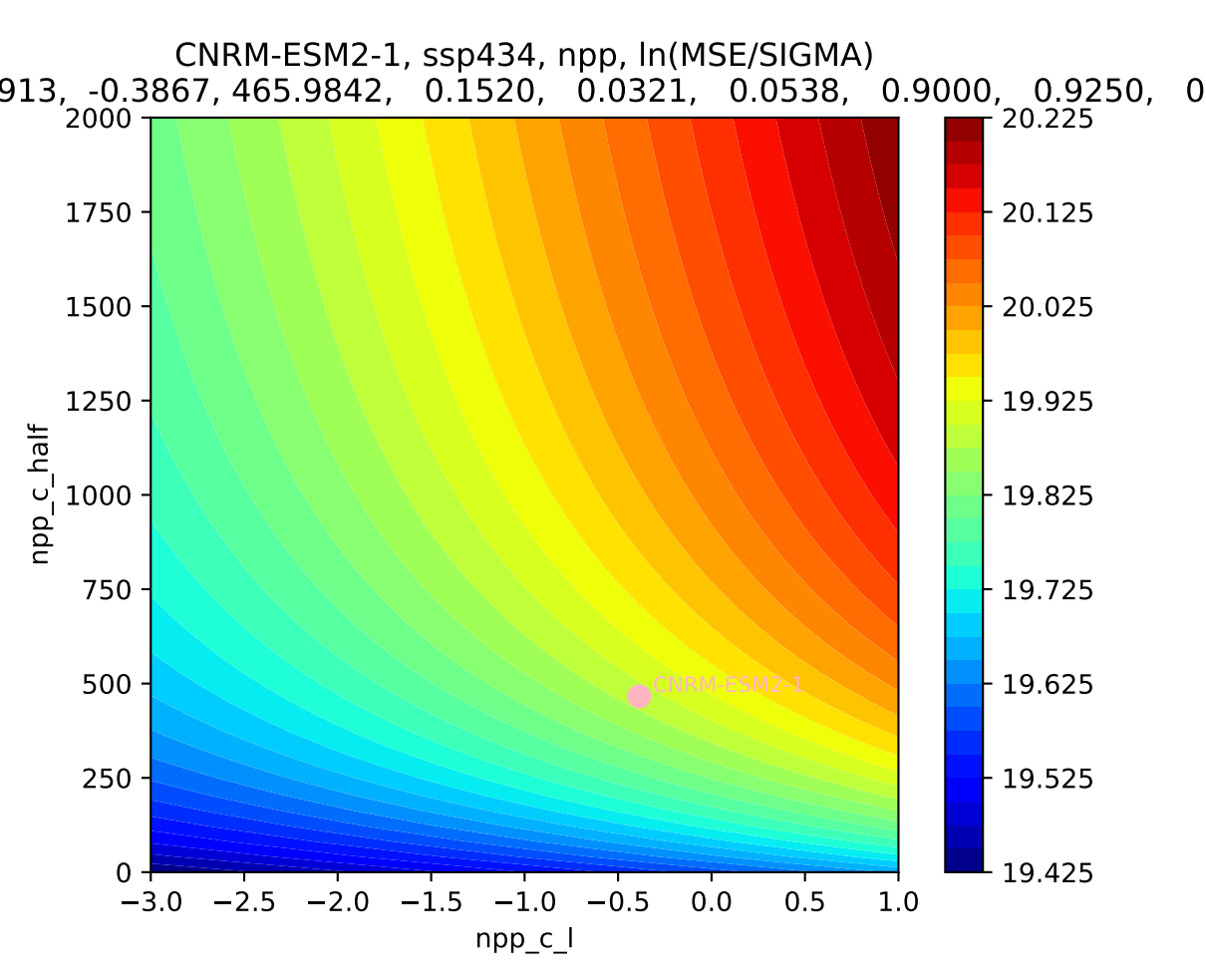

CNRM-ESM2-1, ssp434, npp
ESM
Fit
npp
ΔT

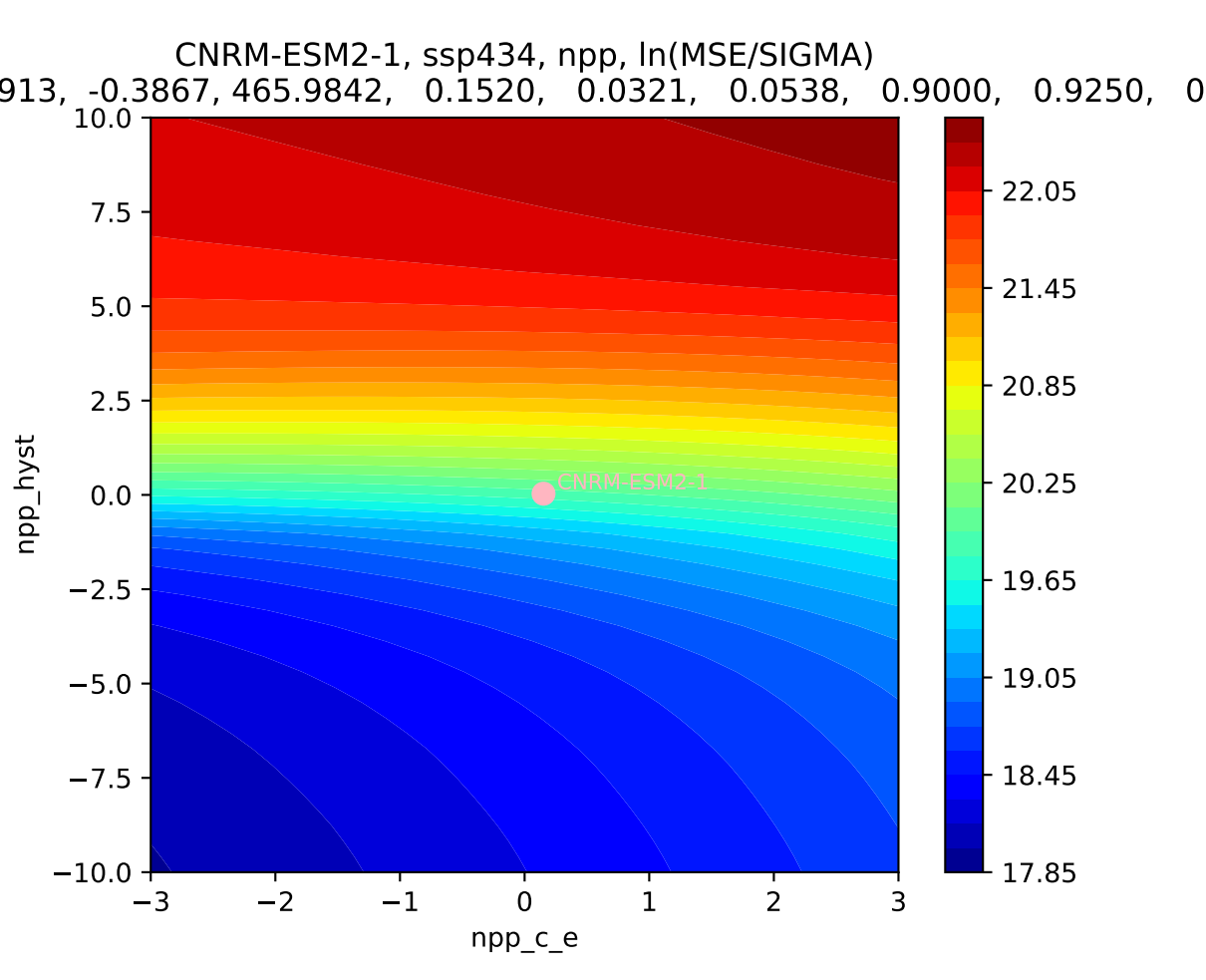

CNRM-ESM2-1, ssp434, npp
ESM-Fit
npp, ESM - FIT
ΔT

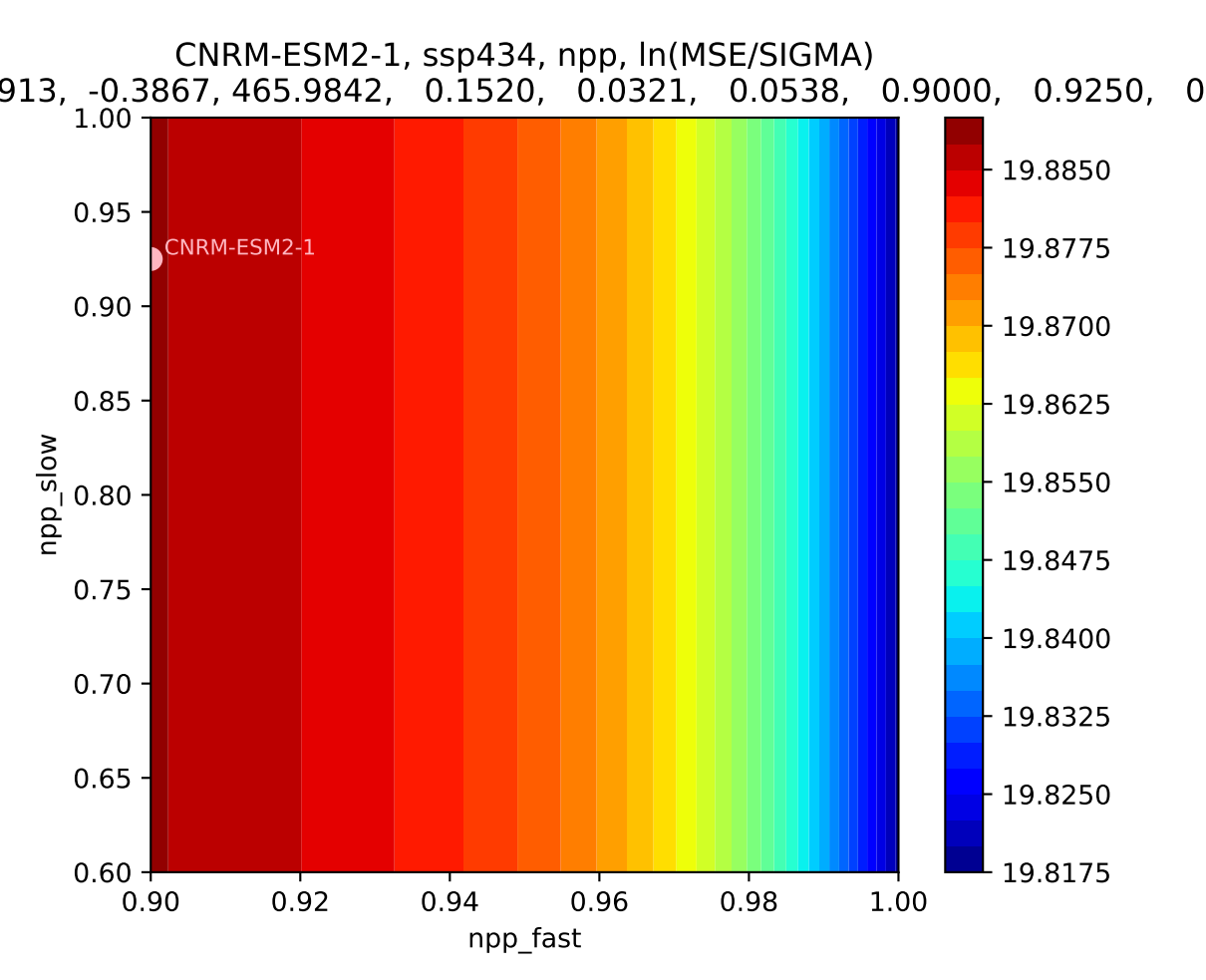

CNRM-ESM2-1, ssp434, npp
ESM
Fit
npp
c_atm

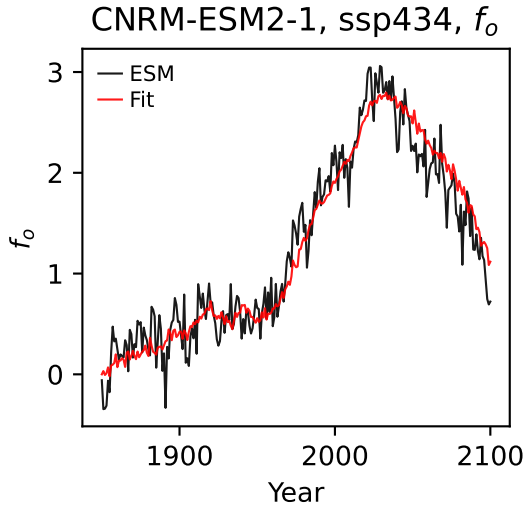

CNRM-ESM2-1, ssp434, npp
ESM-Fit
npp, ESM - FIT
c_atm

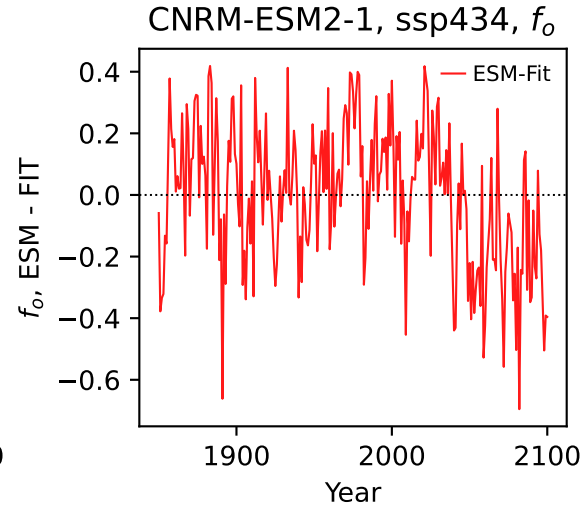

CNRM-ESM2-1, ssp434, npp, ln(MSE/SIGMA)
913, -0.3867, 465.9842, 0.1520, 0.0321, 0.0538, 0.9000, 0.9250, 0
npp_t_e
npp_t_l
CNRM-ESM2-1
22.05
21.60
21.15
20.70
20.25
19.80
19.35
18.90
18.45

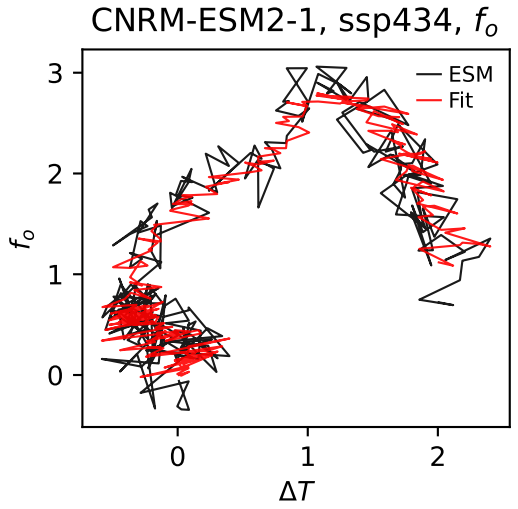

CNRM-ESM2-1, ssp434, npp, ln(MSE/SIGMA)
913, -0.3867, 465.9842, 0.1520, 0.0321, 0.0538, 0.9000, 0.9250, 0
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
npp_c_l
CNRM-ESM2-1
20.225
20.125
20.025
19.925
19.825
19.725
19.625
19.525
19.425

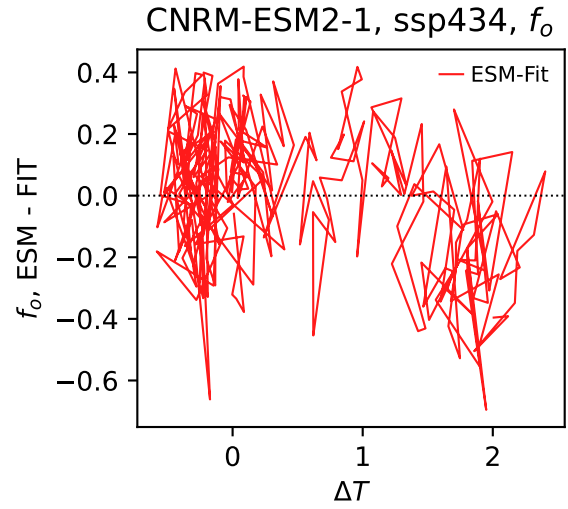

CNRM-ESM2-1, ssp434, npp, ln(MSE/SIGMA)
913, -0.3867, 465.9842, 0.1520, 0.0321, 0.0538, 0.9000, 0.9250, 0
CNRM-ESM2-1
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.05
21.45
20.85
20.25
19.65
19.05
18.45
17.85

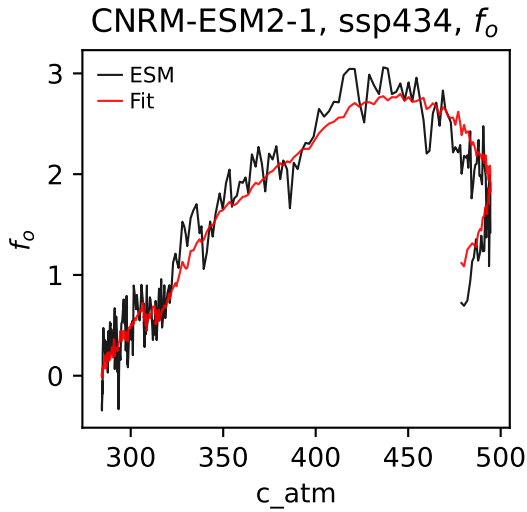

CNRM-ESM2-1, ssp434, npp, ln(MSE/SIGMA)
913, -0.3867, 465.9842, 0.1520, 0.0321, 0.0538, 0.9000, 0.9250, 0
CNRM-ESM2-1
npp_slow
npp_fast
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.90
0.92
0.94
0.96
0.98
1.00
19.8850
19.8775
19.8700
19.8625
19.8550
19.8475
19.8400
19.8325
19.8250
19.8175

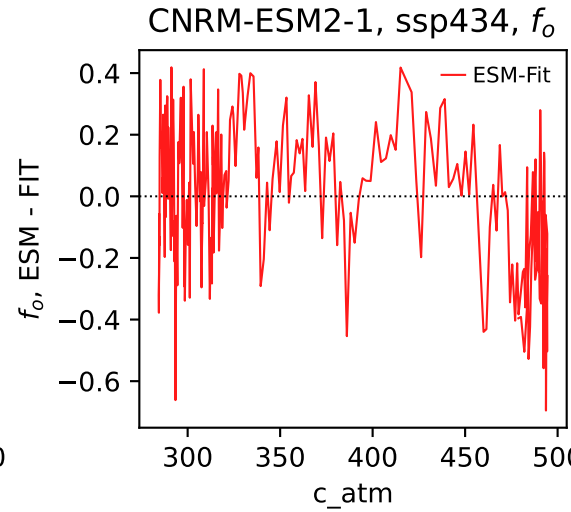

CNRM-ESM2-1, ssp434, f_o
ESM
Fit
f_o
Year

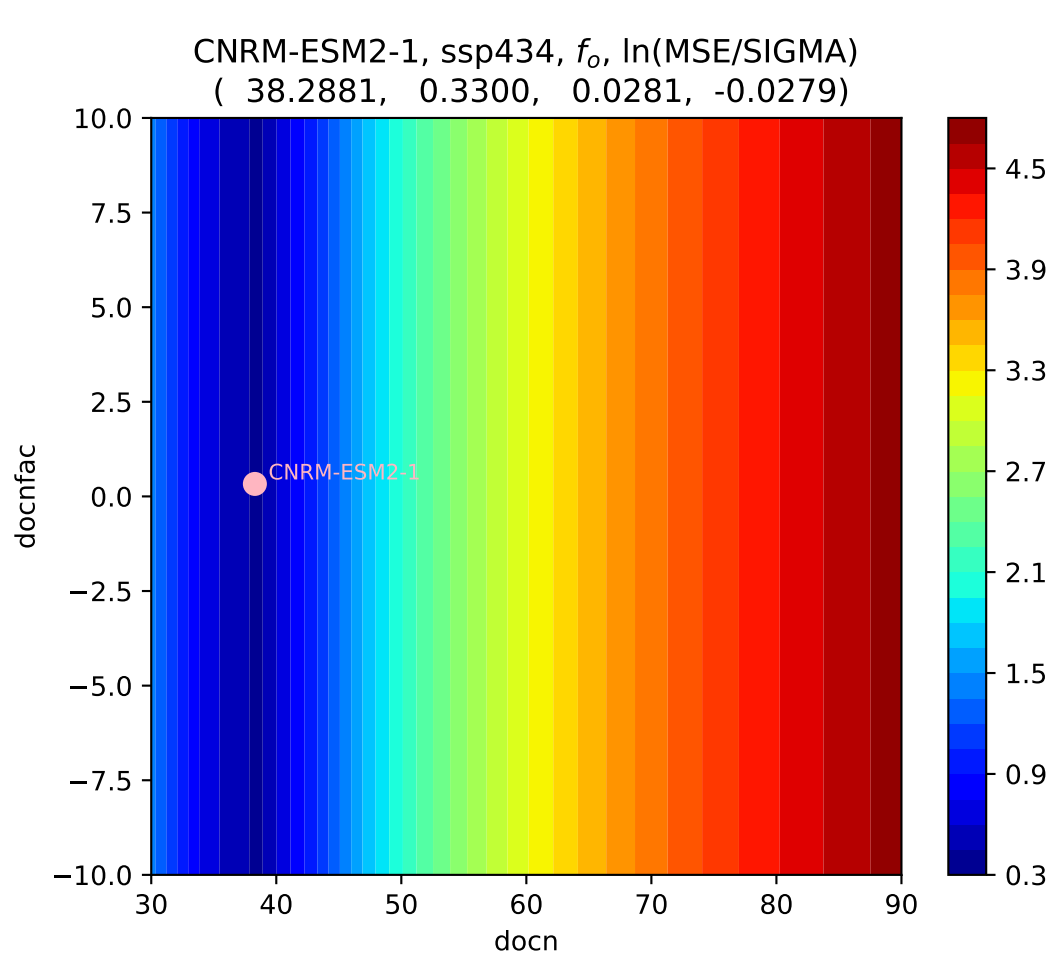

CNRM-ESM2-1, ssp434, f_o
ESM-Fit
f_o, ESM - FIT
Year

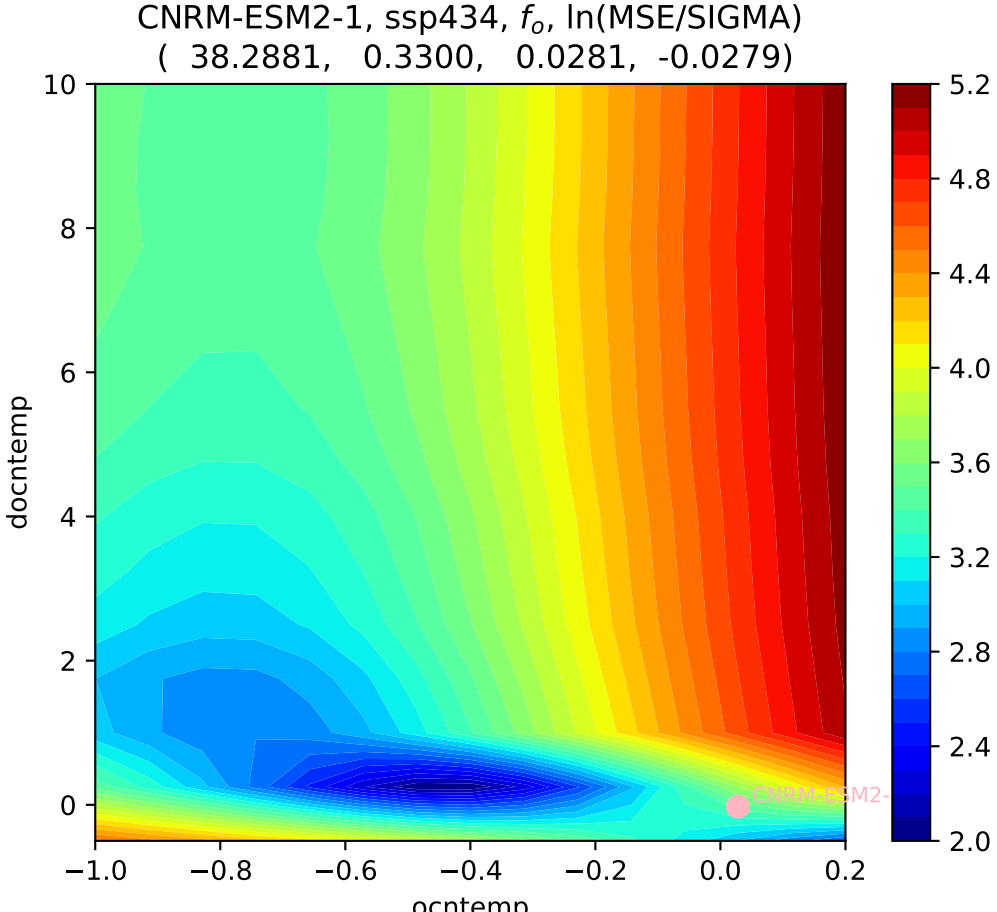

CNRM-ESM2-1, ssp434, f_o
ESM
Fit
f_o
ΔT


CNRM-ESM2-1, ssp434, f_o
ESM-Fit
f_o, ESM - FIT
ΔT


CNRM-ESM2-1, ssp434, f_o
ESM
Fit
f_o
c_atm


CNRM-ESM2-1, ssp434, f_o
ESM-Fit
f_o, ESM - FIT
c_atm


CNRM-ESM2-1, ssp434, f_o, ln(MSE/SIGMA)
(38.2881, 0.3300, 0.0281, -0.0279)
CNRM-ESM2-1
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
4.5
3.9
3.3
2.7
2.1
1.5
0.9
0.3


CNRM-ESM2-1, ssp434, f_o, ln(MSE/SIGMA)
(38.2881, 0.3300, 0.0281, -0.0279)
docntemp
ocntemp
10
8
6
4
2
0
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
5.2
4.8
4.4
4.0
3.6
3.2
2.8
2.4
2.0
CNRM-ESM2-