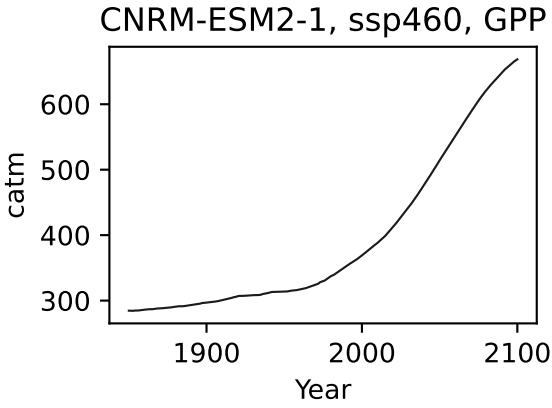
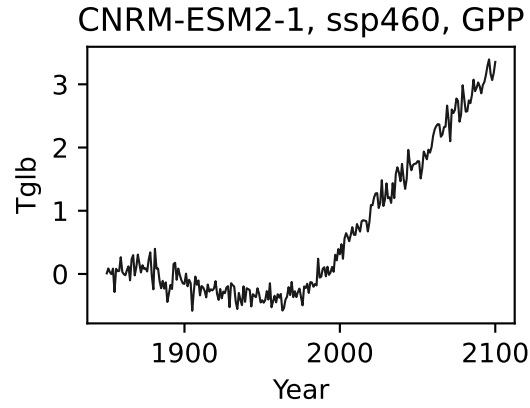
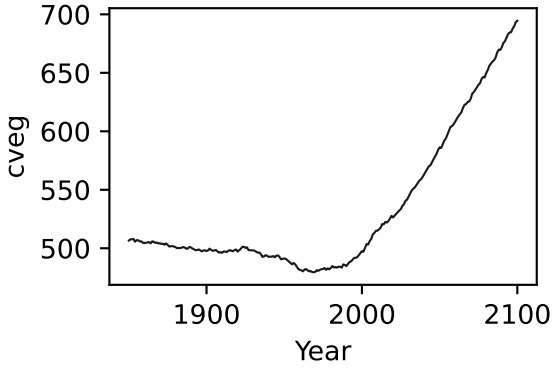
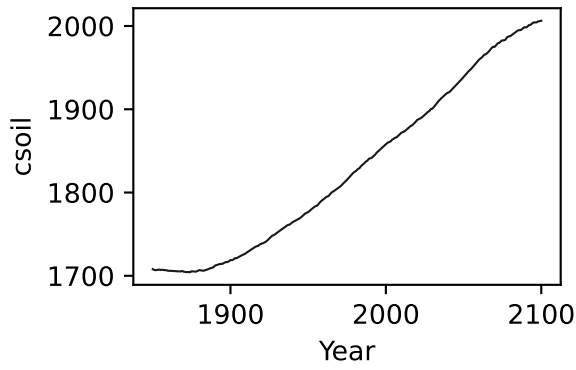
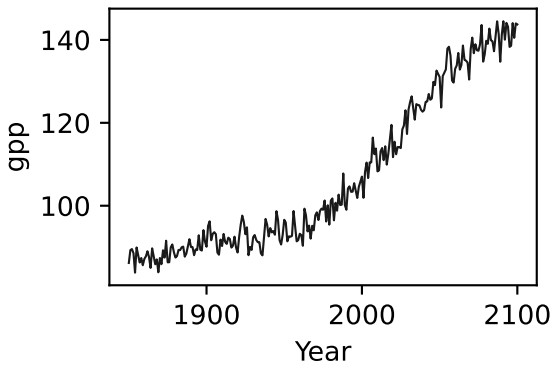
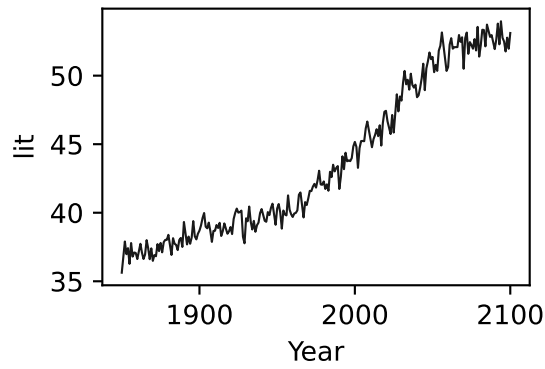

CNRM-ESM2-1, ssp460, GPP
catm
600
500
400
300
1900
2000
2100
Year

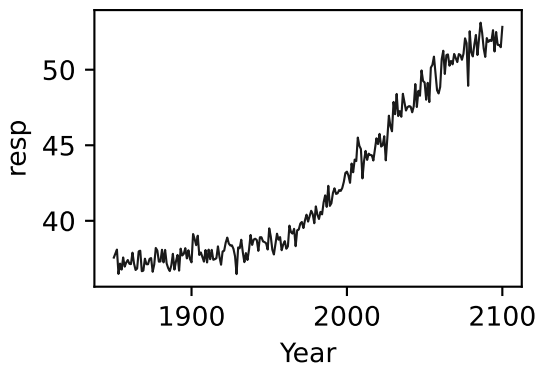

CNRM-ESM2-1, ssp460, GPP
Tglb
3
2
1
0
1900
2000
2100
Year

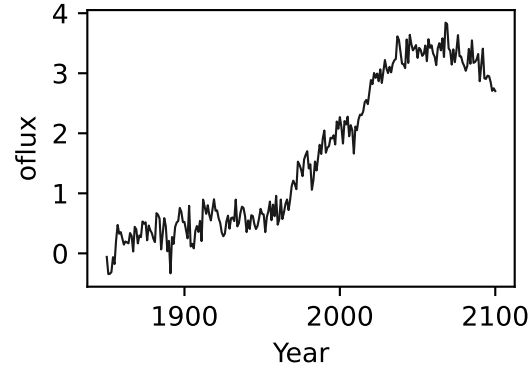

cveg
700
650
600
550
500
1900
2000
2100
Year

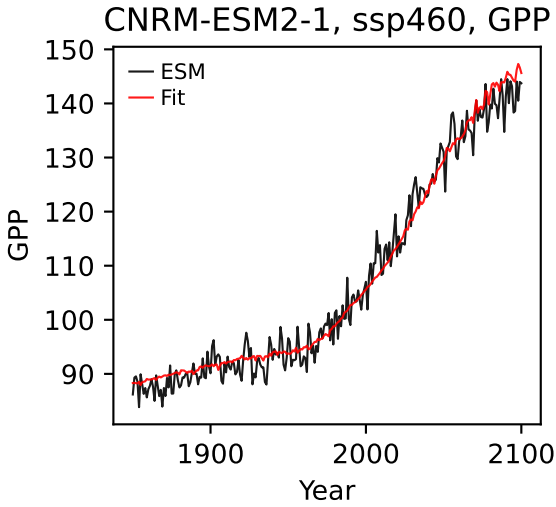

csoil
2000
1900
1800
1700
1900
2000
2100
Year

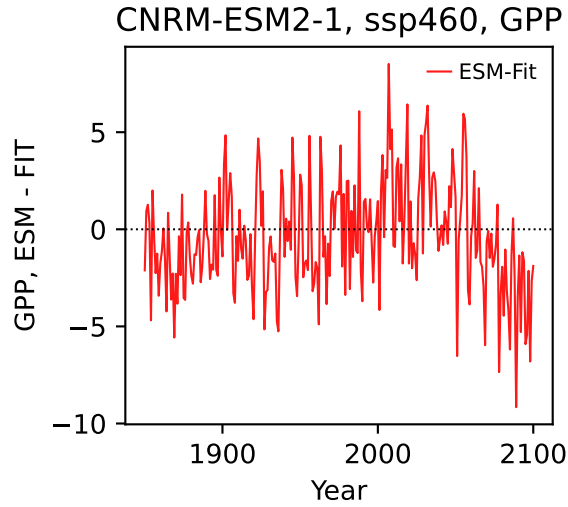

gpp
140
120
100
1900
2000
2100
Year

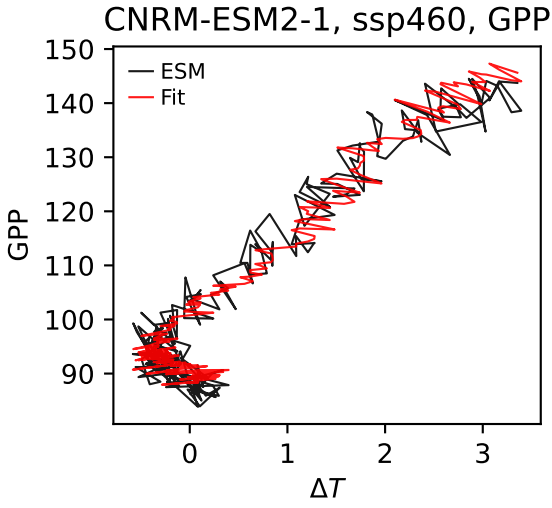

lit
50
45
40
35
1900
2000
2100
Year

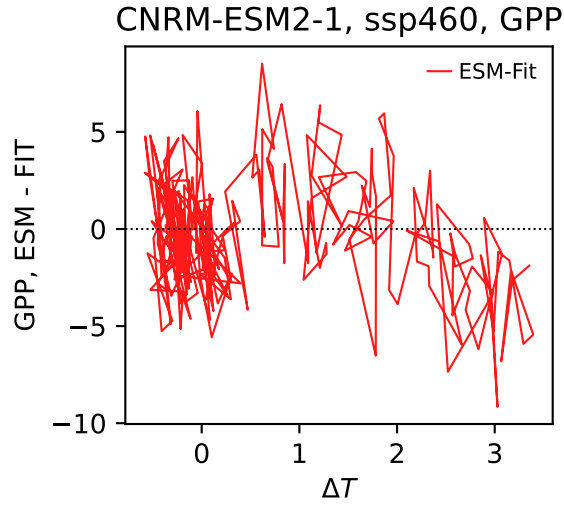

resp
50
45
40
1900
2000
2100
Year

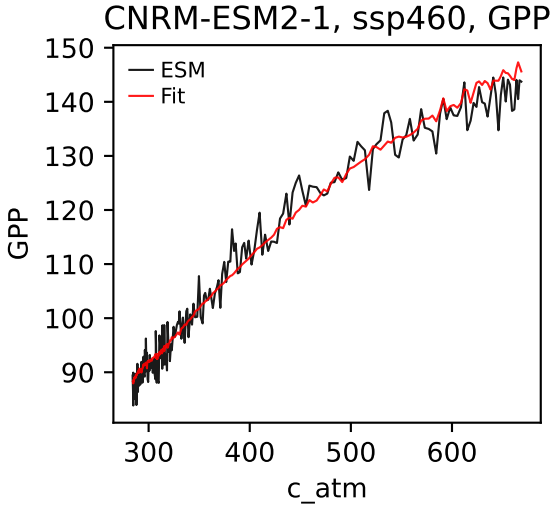

oflux
4
3
2
1
0
1900
2000
2100
Year

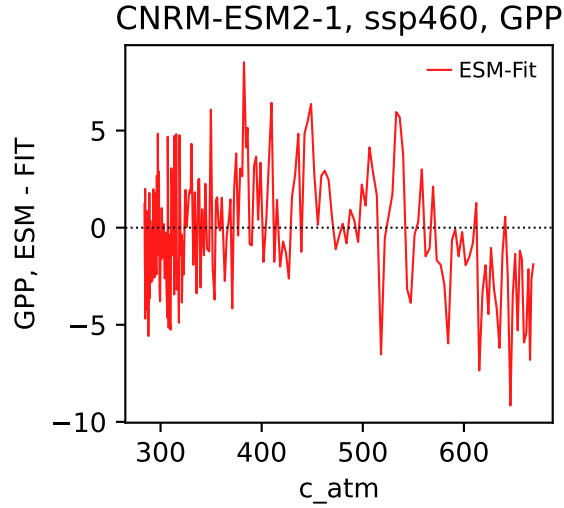

CNRM-ESM2-1, ssp460, GPP
ESM
Fit
GPP
Year

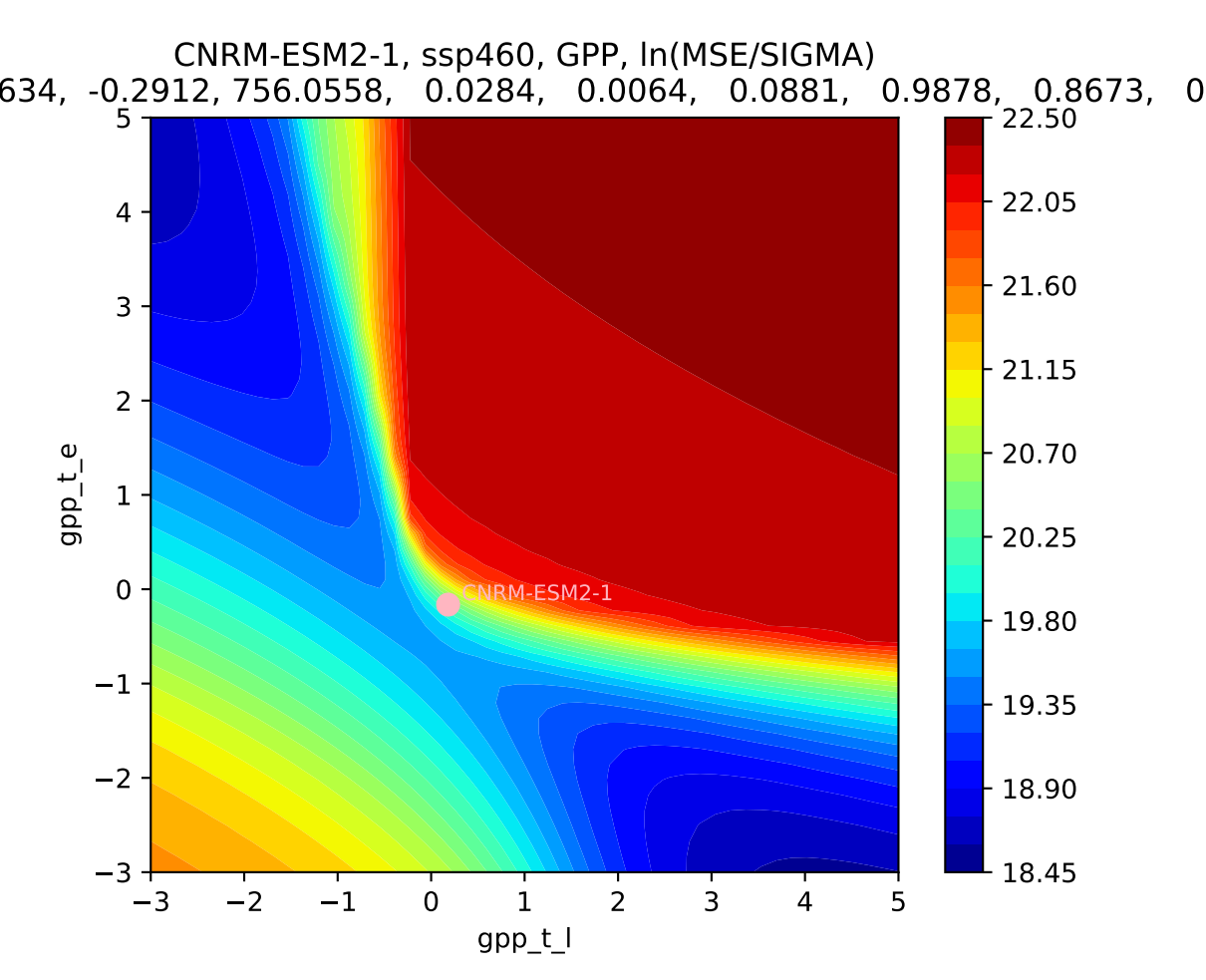

CNRM-ESM2-1, ssp460, GPP
ESM-Fit
GPP, ESM - FIT
Year

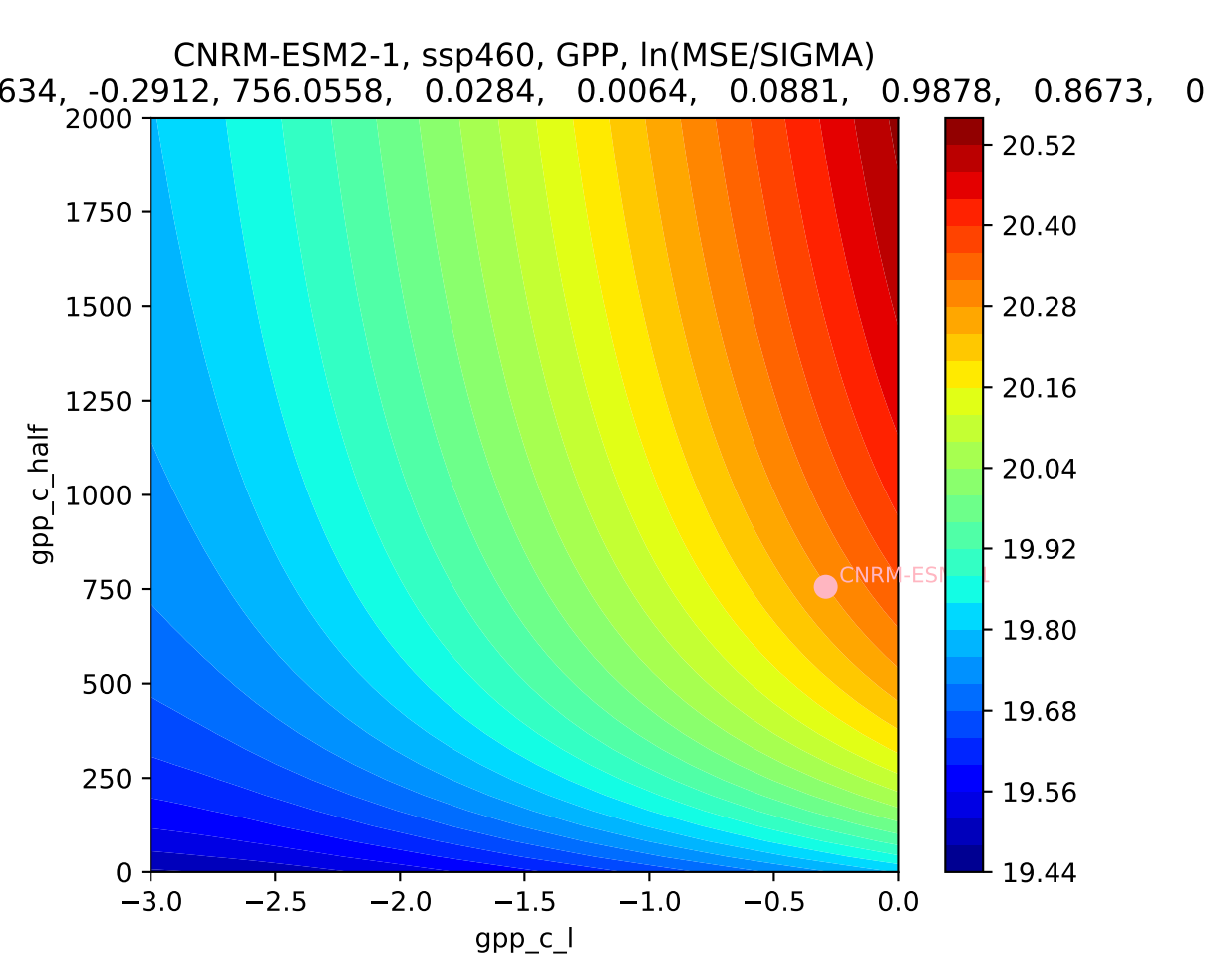

CNRM-ESM2-1, ssp460, GPP
ESM
Fit
GPP
ΔT

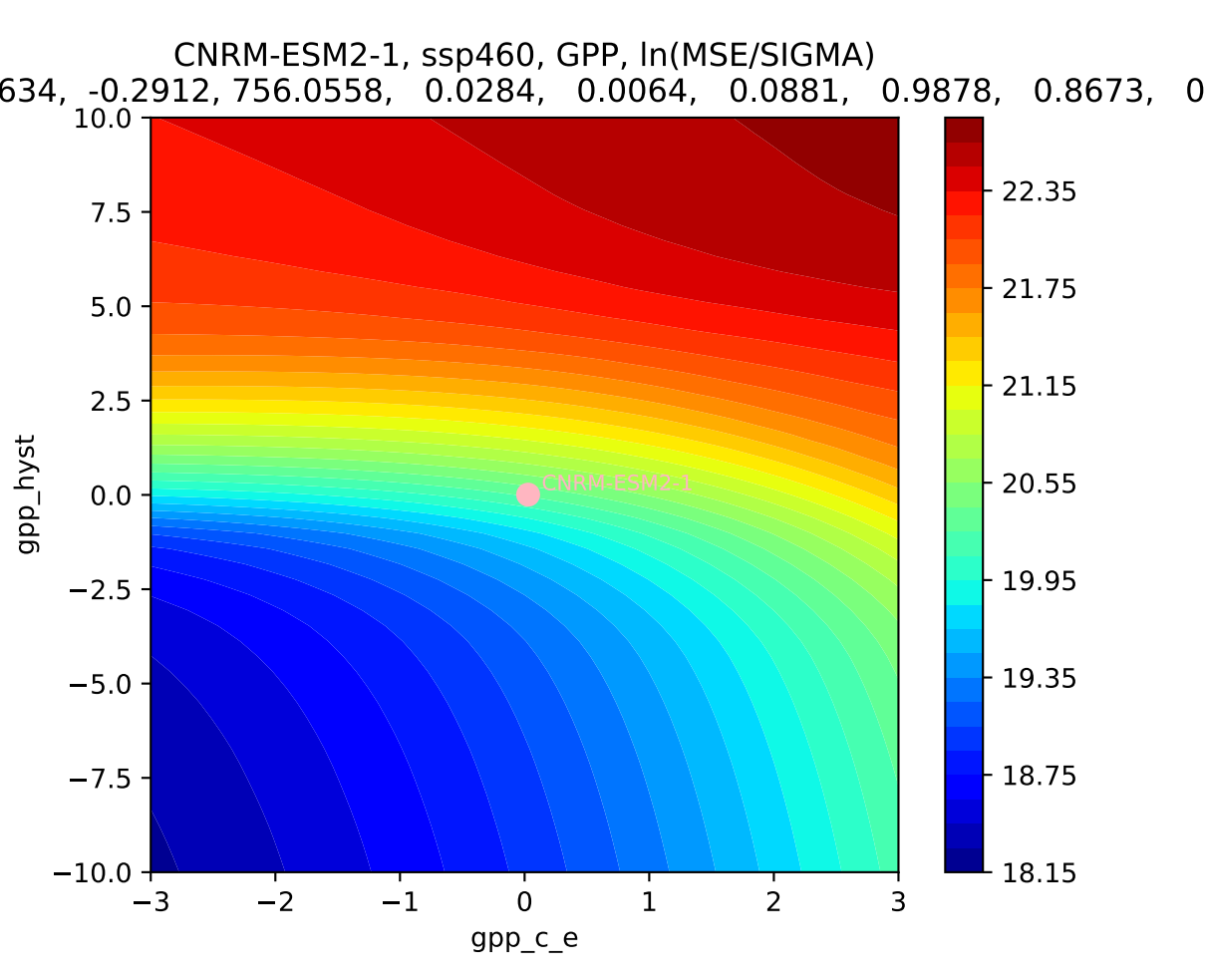

CNRM-ESM2-1, ssp460, GPP
ESM-Fit
GPP, ESM - FIT
ΔT

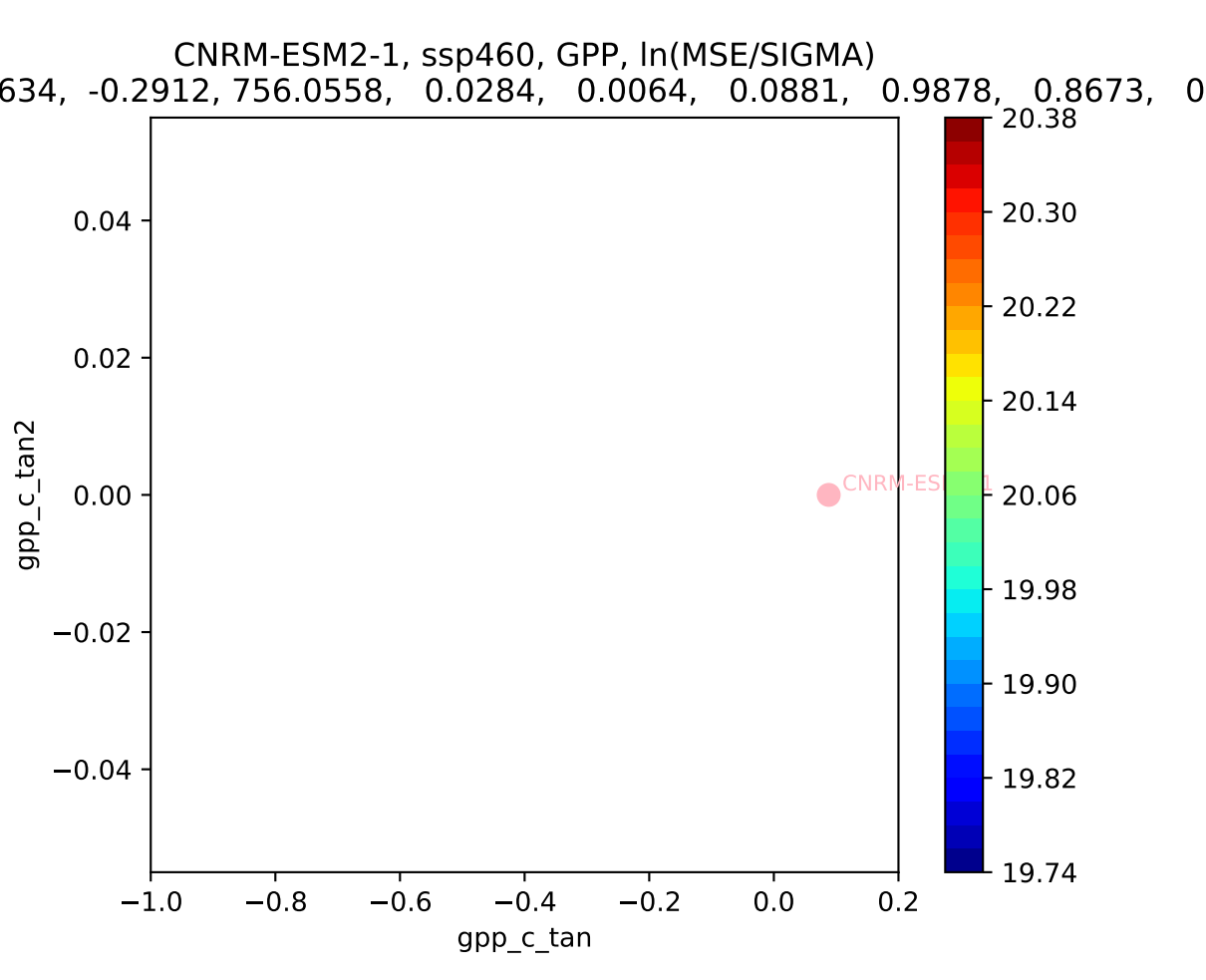

CNRM-ESM2-1, ssp460, GPP
ESM
Fit
GPP
c_atm

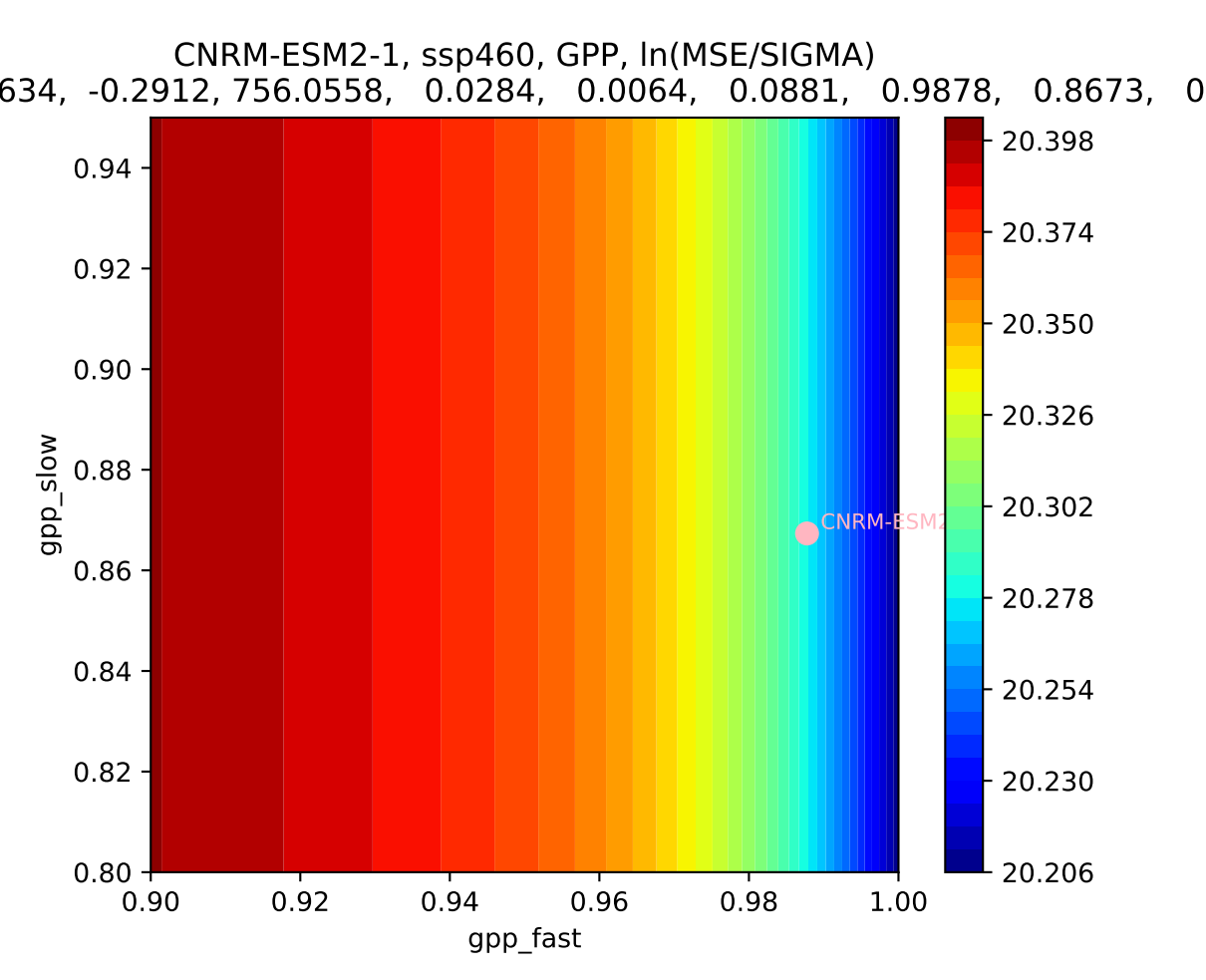

CNRM-ESM2-1, ssp460, GPP
ESM-Fit
GPP, ESM - FIT
c_atm

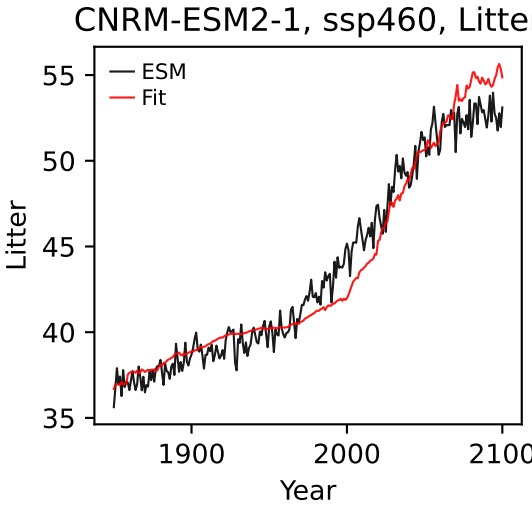

CNRM-ESM2-1, ssp460, GPP, ln(MSE/SIGMA)
634, -0.2912, 756.0558, 0.0284, 0.0064, 0.0881, 0.9878, 0.8673, 0
CNRM-ESM2-1
gpp_t_e
gpp_t_l
22.50
22.05
21.60
21.15
20.70
20.25
19.80
19.35
18.90
18.45

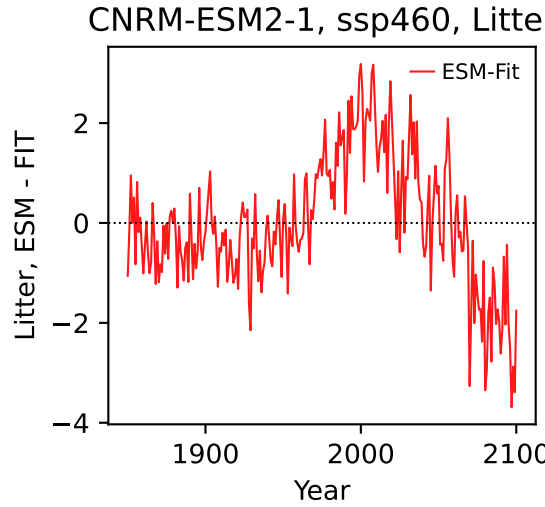

CNRM-ESM2-1, ssp460, GPP, ln(MSE/SIGMA)
634, -0.2912, 756.0558, 0.0284, 0.0064, 0.0881, 0.9878, 0.8673, 0
gpp_c_half
gpp_c_l
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
20.52
20.40
20.28
20.16
20.04
19.92
19.80
19.68
19.56
19.44

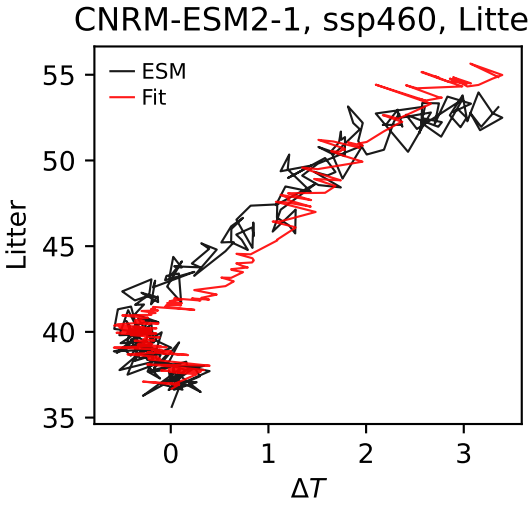

CNRM-ESM2-1, ssp460, GPP, ln(MSE/SIGMA)
634, -0.2912, 756.0558, 0.0284, 0.0064, 0.0881, 0.9878, 0.8673, 0
CNRM-ESM2-1
gpp_hyst
gpp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.35
21.75
21.15
20.55
19.95
19.35
18.75
18.15

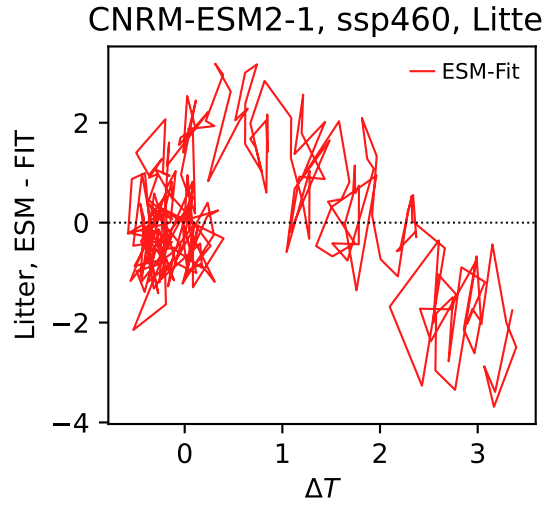

CNRM-ESM2-1, ssp460, GPP, ln(MSE/SIGMA)
634, -0.2912, 756.0558, 0.0284, 0.0064, 0.0881, 0.9878, 0.8673, 0
gpp_c_tan2
gpp_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
20.38
20.30
20.22
20.14
20.06
19.98
19.90
19.82
19.74

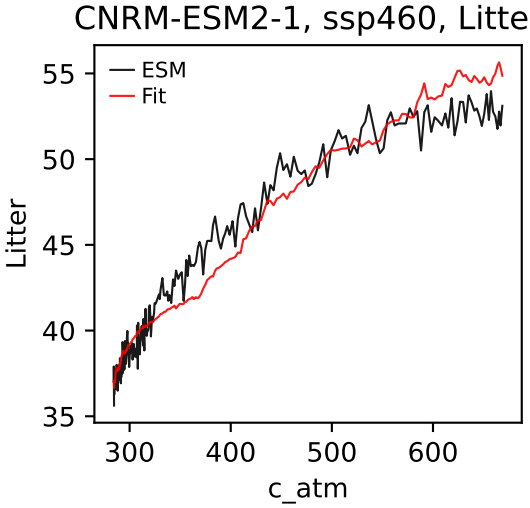

CNRM-ESM2-1, ssp460, GPP, ln(MSE/SIGMA)
634, -0.2912, 756.0558, 0.0284, 0.0064, 0.0881, 0.9878, 0.8673, 0
gpp_slow
gpp_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
20.398
20.374
20.350
20.326
20.302
20.278
20.254
20.230
20.206

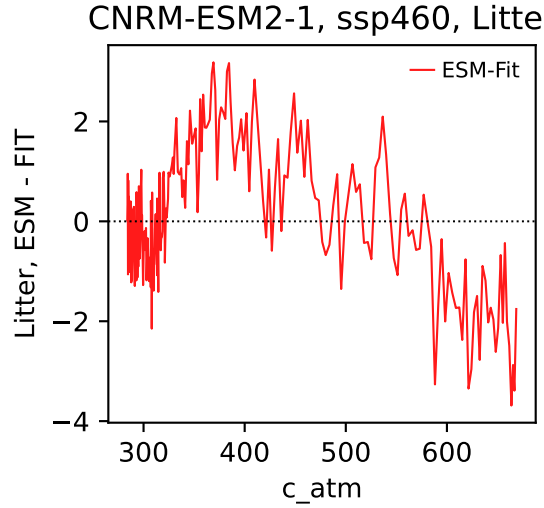

CNRM-ESM2-1, ssp460, Litter
ESM
Fit
Litter
Year

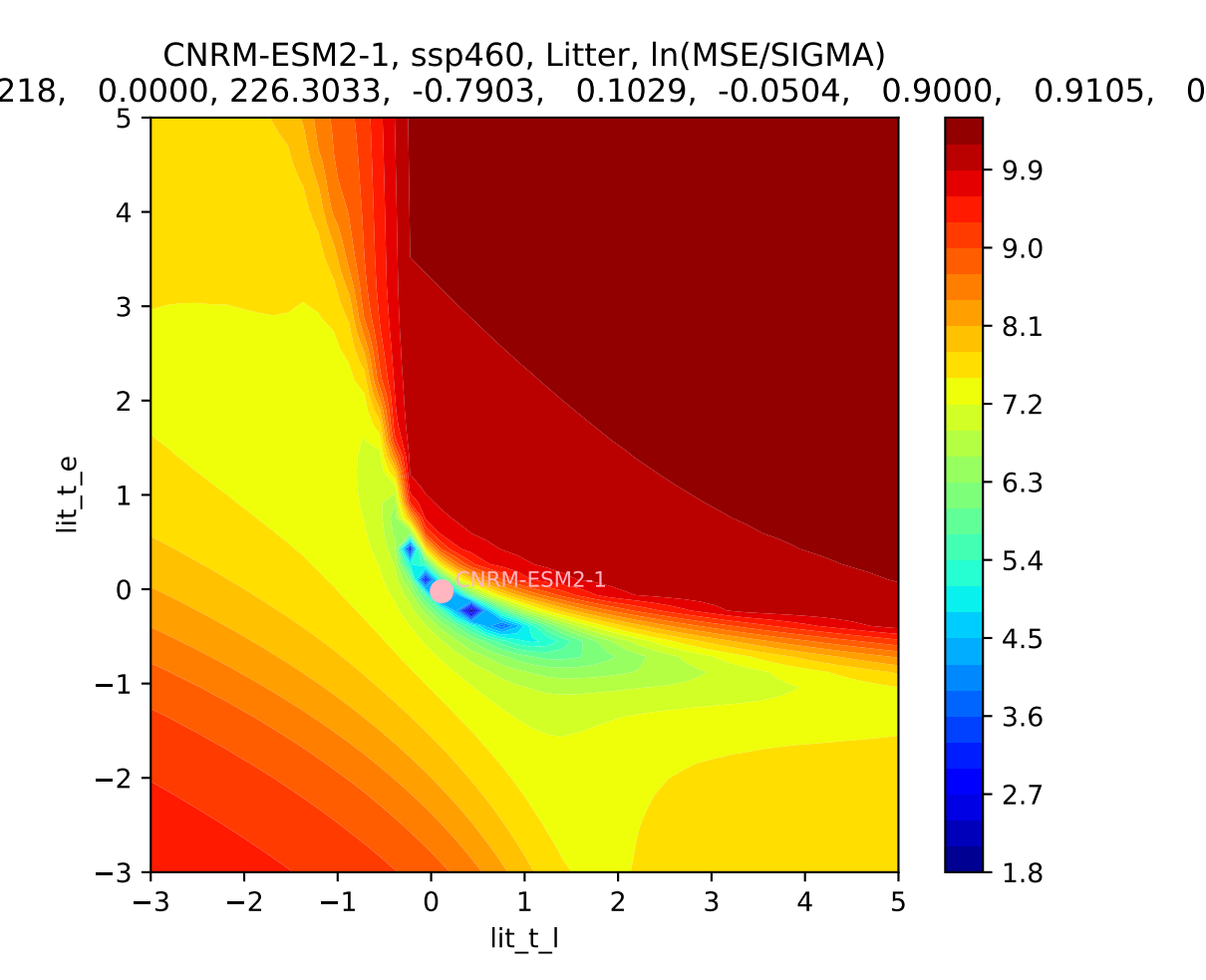

CNRM-ESM2-1, ssp460, Litter
ESM-Fit
Litter, ESM - FIT
Year

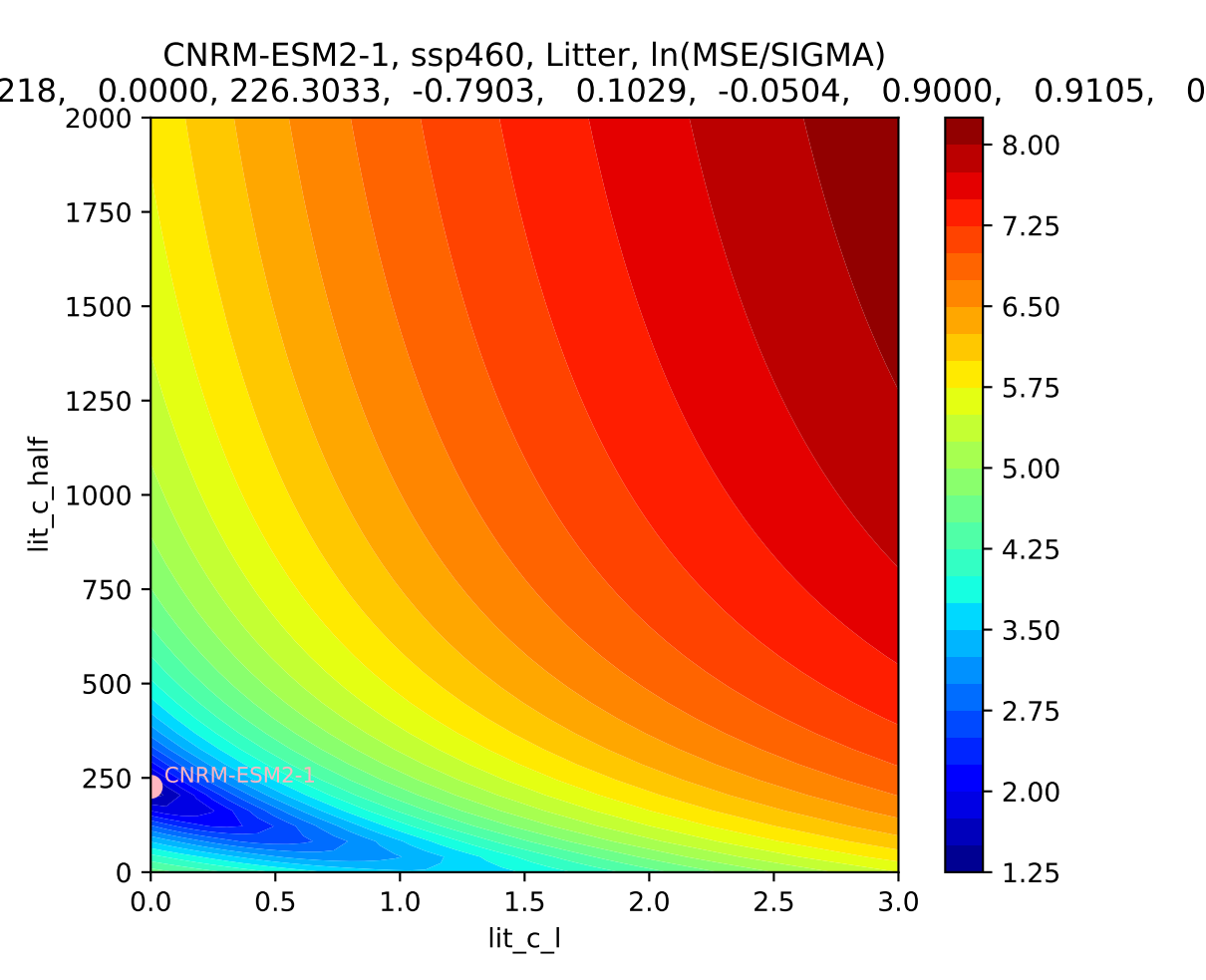

CNRM-ESM2-1, ssp460, Litter
ESM
Fit
Litter
ΔT

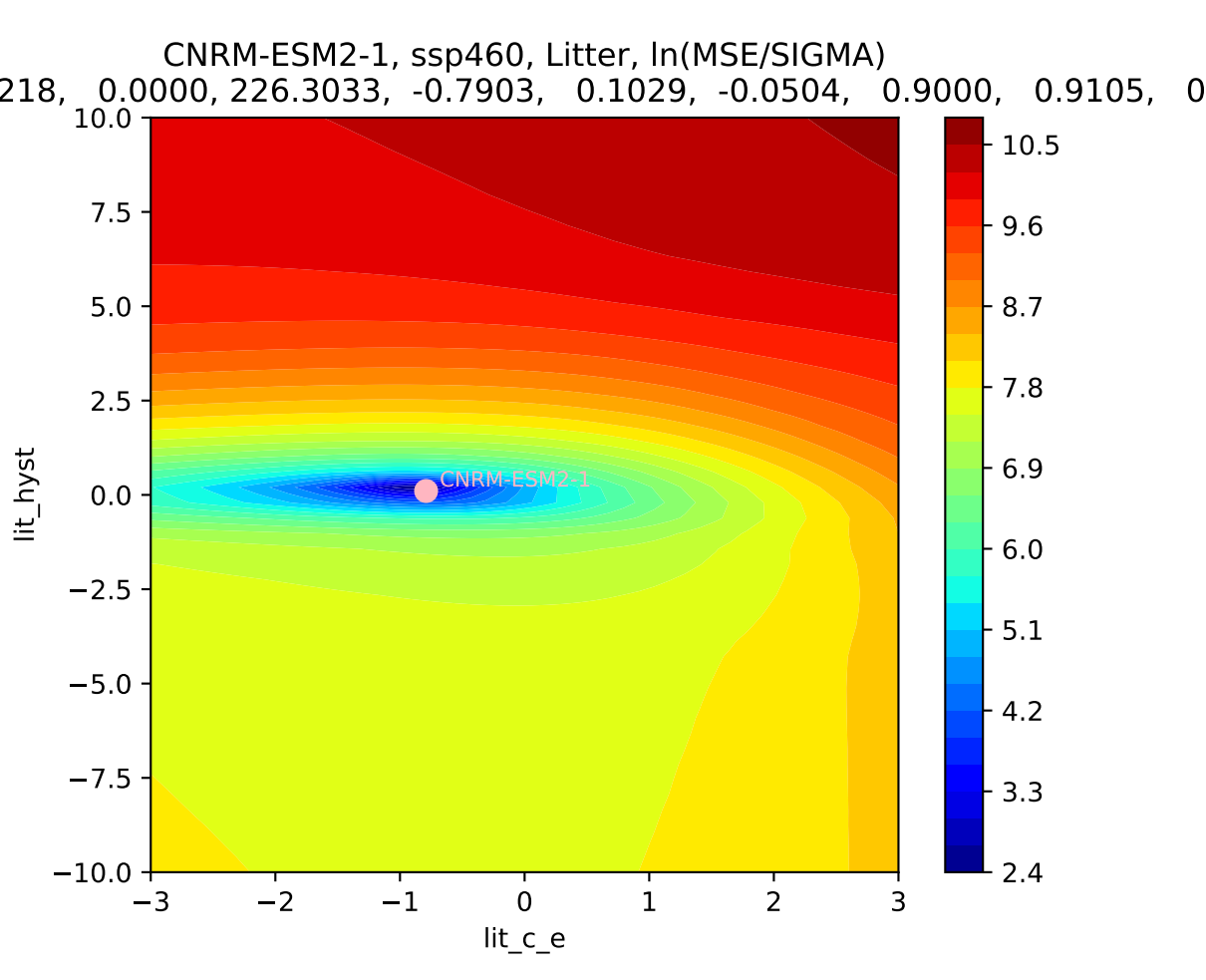

CNRM-ESM2-1, ssp460, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

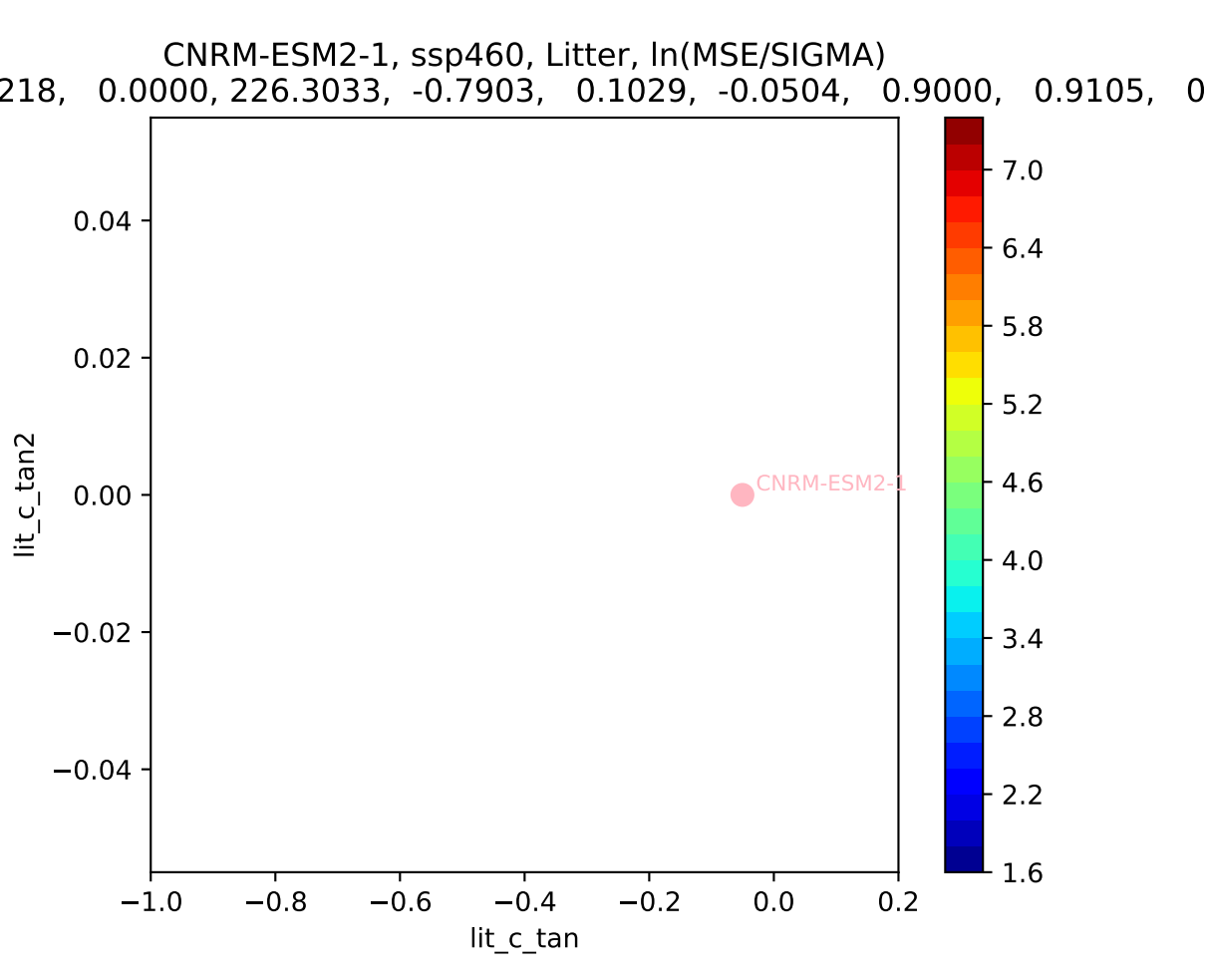

CNRM-ESM2-1, ssp460, Litter
ESM
Fit
Litter
c_atm

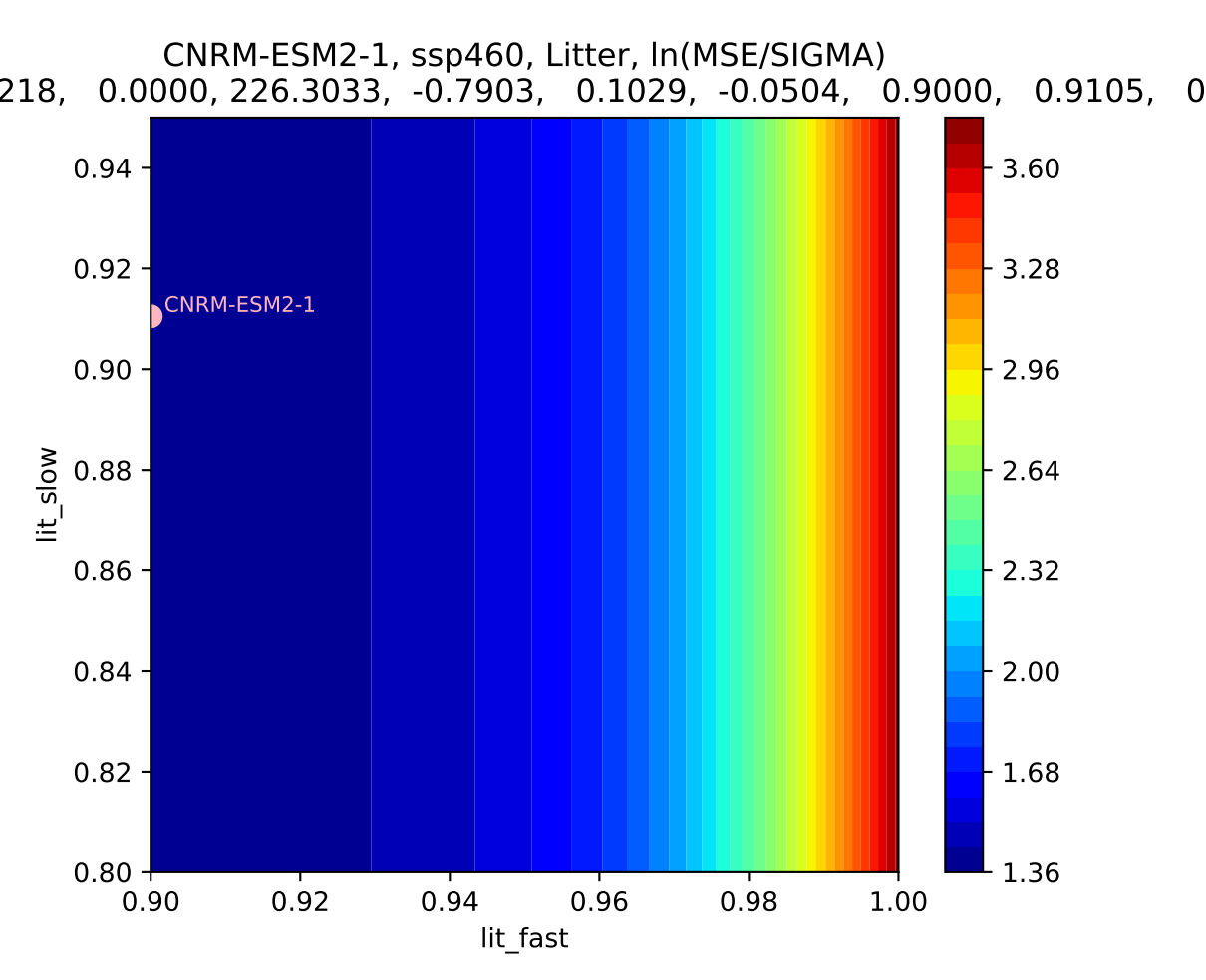

CNRM-ESM2-1, ssp460, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

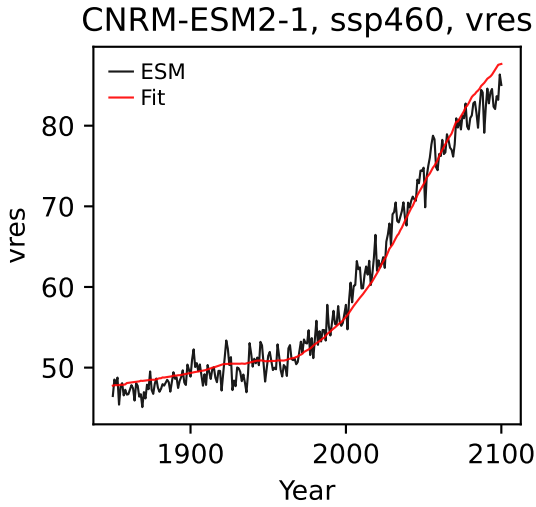

CNRM-ESM2-1, ssp460, Litter, ln(MSE/SIGMA)
218, 0.0000, 226.3033, -0.7903, 0.1029, -0.0504, 0.9000, 0.9105, 0
CNRM-ESM2-1
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
9.9
9.0
8.1
7.2
6.3
5.4
4.5
3.6
2.7
1.8

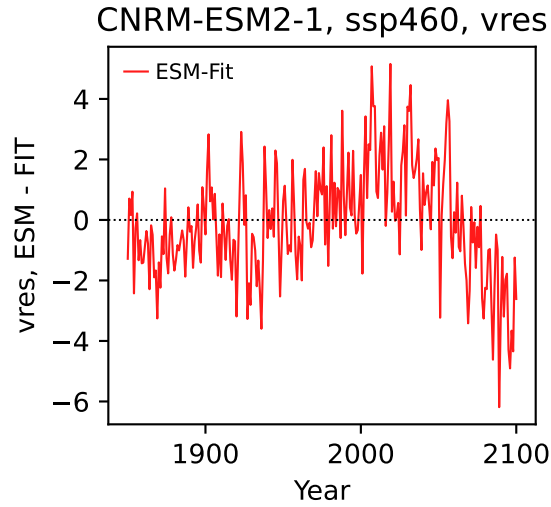

CNRM-ESM2-1, ssp460, Litter, ln(MSE/SIGMA)
218, 0.0000, 226.3033, -0.7903, 0.1029, -0.0504, 0.9000, 0.9105, 0
lit_c_half
lit_c_l
CNRM-ESM2-1
0
250
500
750
1000
1250
1500
1750
2000
0.0
0.5
1.0
1.5
2.0
2.5
3.0
8.00
7.25
6.50
5.75
5.00
4.25
3.50
2.75
2.00
1.25

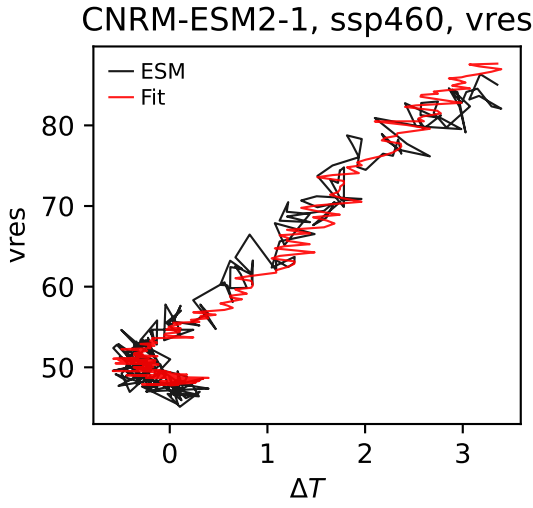

CNRM-ESM2-1, ssp460, Litter, ln(MSE/SIGMA)
218, 0.0000, 226.3033, -0.7903, 0.1029, -0.0504, 0.9000, 0.9105, 0
CNRM-ESM2-1
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.5
9.6
8.7
7.8
6.9
6.0
5.1
4.2
3.3
2.4

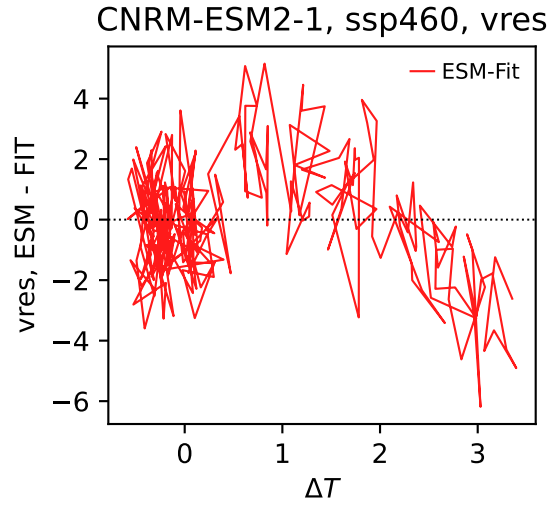

CNRM-ESM2-1, ssp460, Litter, ln(MSE/SIGMA)
218, 0.0000, 226.3033, -0.7903, 0.1029, -0.0504, 0.9000, 0.9105, 0
CNRM-ESM2-1
lit_c_tan2
lit_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
7.0
6.4
5.8
5.2
4.6
4.0
3.4
2.8
2.2
1.6

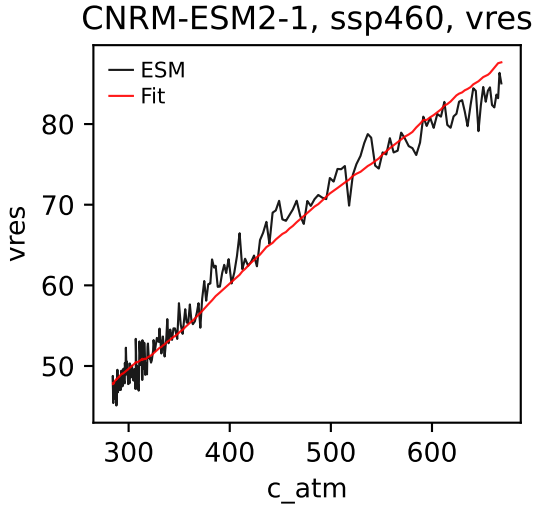

CNRM-ESM2-1, ssp460, Litter, ln(MSE/SIGMA)
218, 0.0000, 226.3033, -0.7903, 0.1029, -0.0504, 0.9000, 0.9105, 0
CNRM-ESM2-1
lit_slow
lit_fast
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.90
0.92
0.94
0.96
0.98
1.00
3.60
3.28
2.96
2.64
2.32
2.00
1.68
1.36

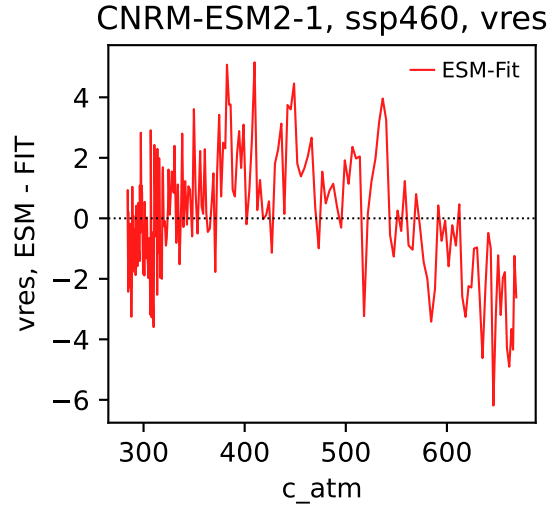

CNRM-ESM2-1, ssp460, vres
ESM
Fit
vres
Year

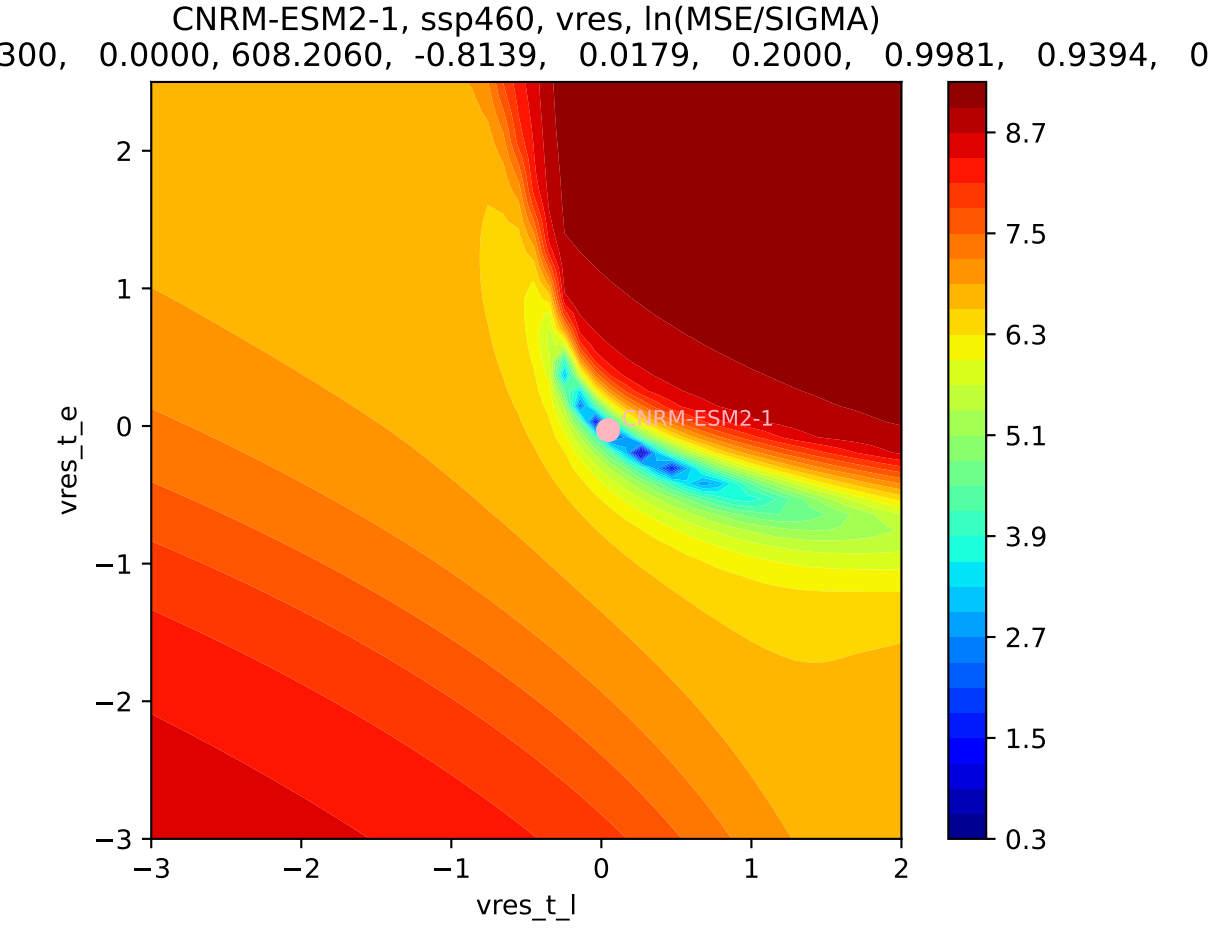

CNRM-ESM2-1, ssp460, vres
ESM-Fit
vres, ESM - FIT
Year

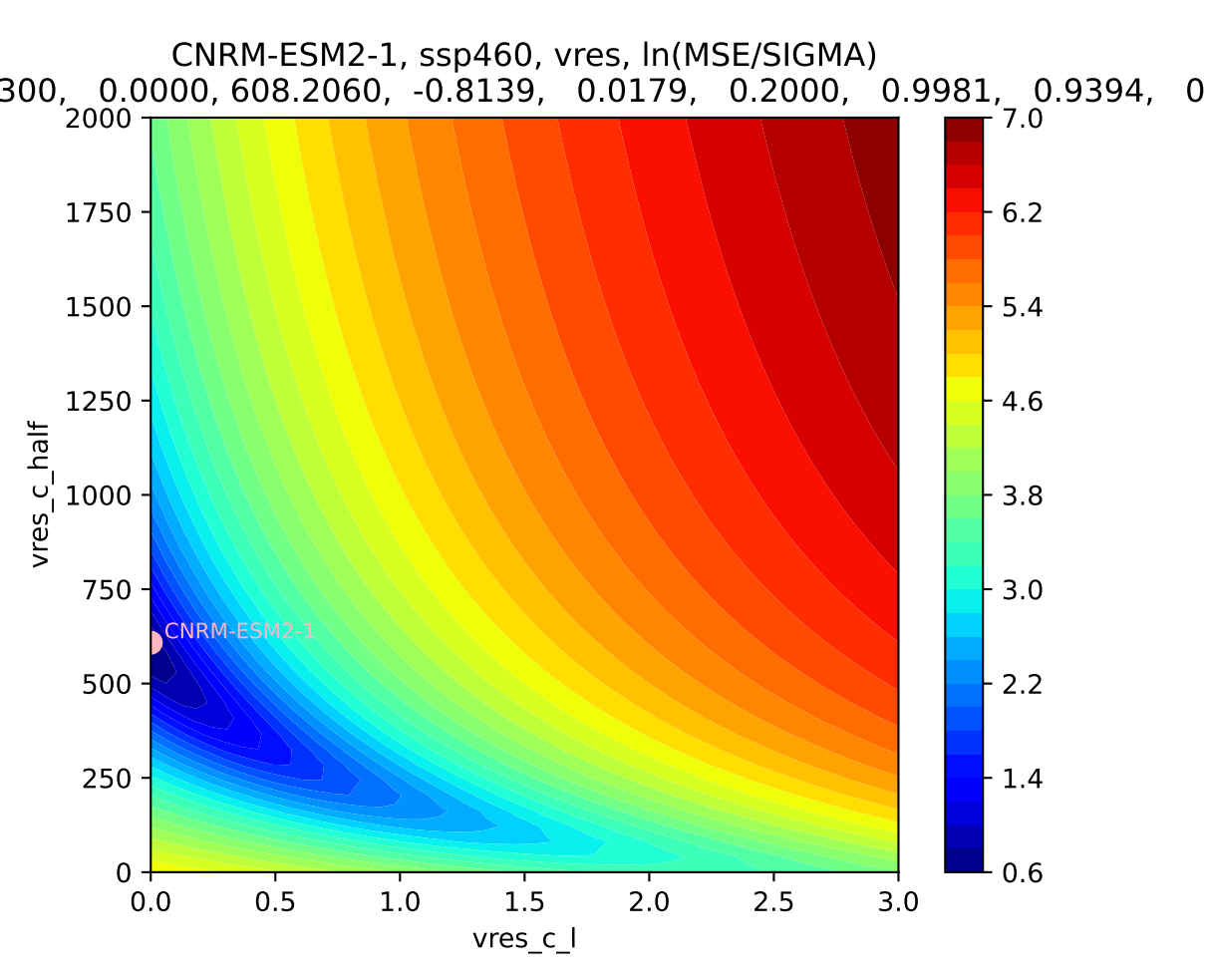

CNRM-ESM2-1, ssp460, vres
ESM
Fit
vres
ΔT

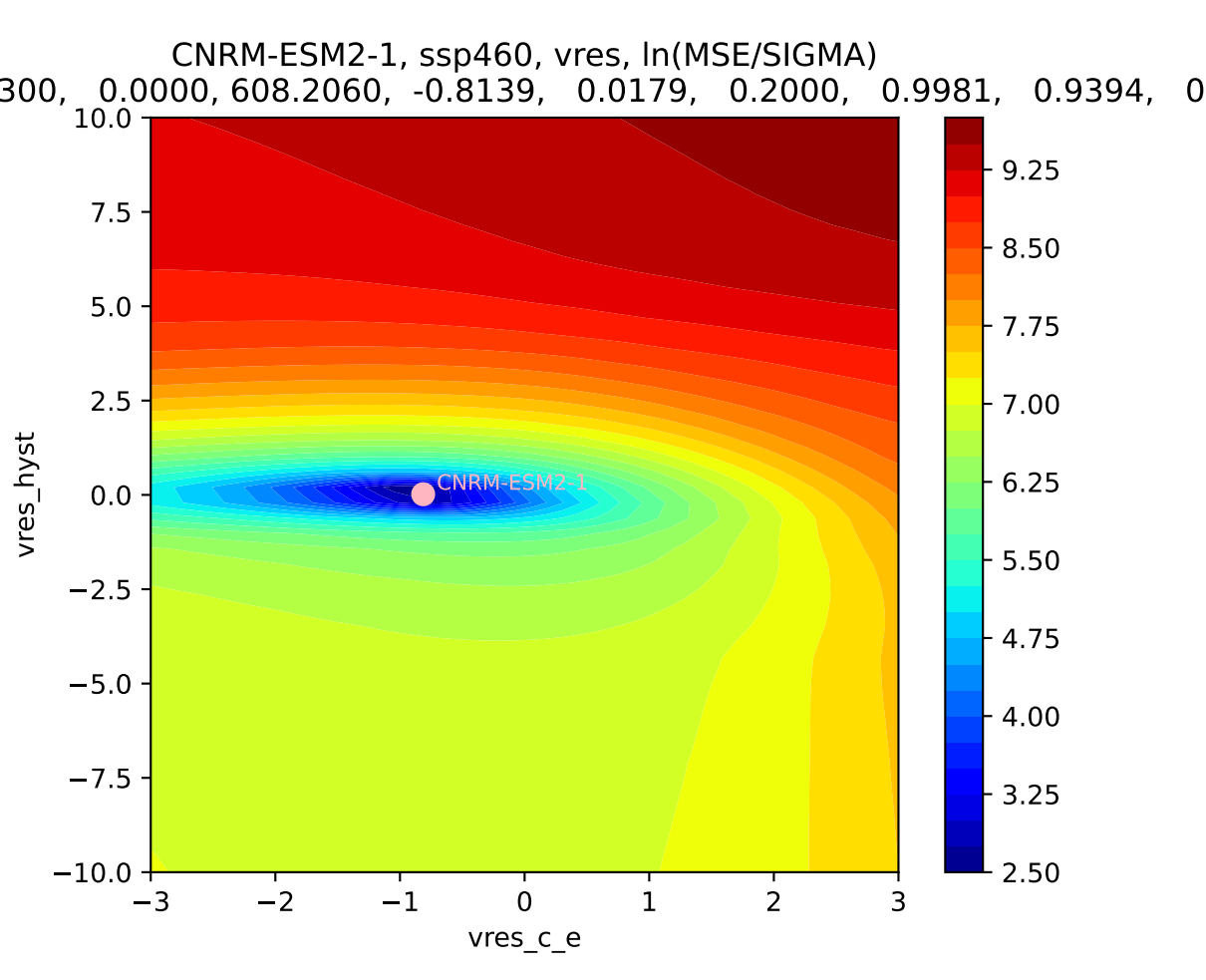

CNRM-ESM2-1, ssp460, vres
ESM-Fit
vres, ESM - FIT
ΔT

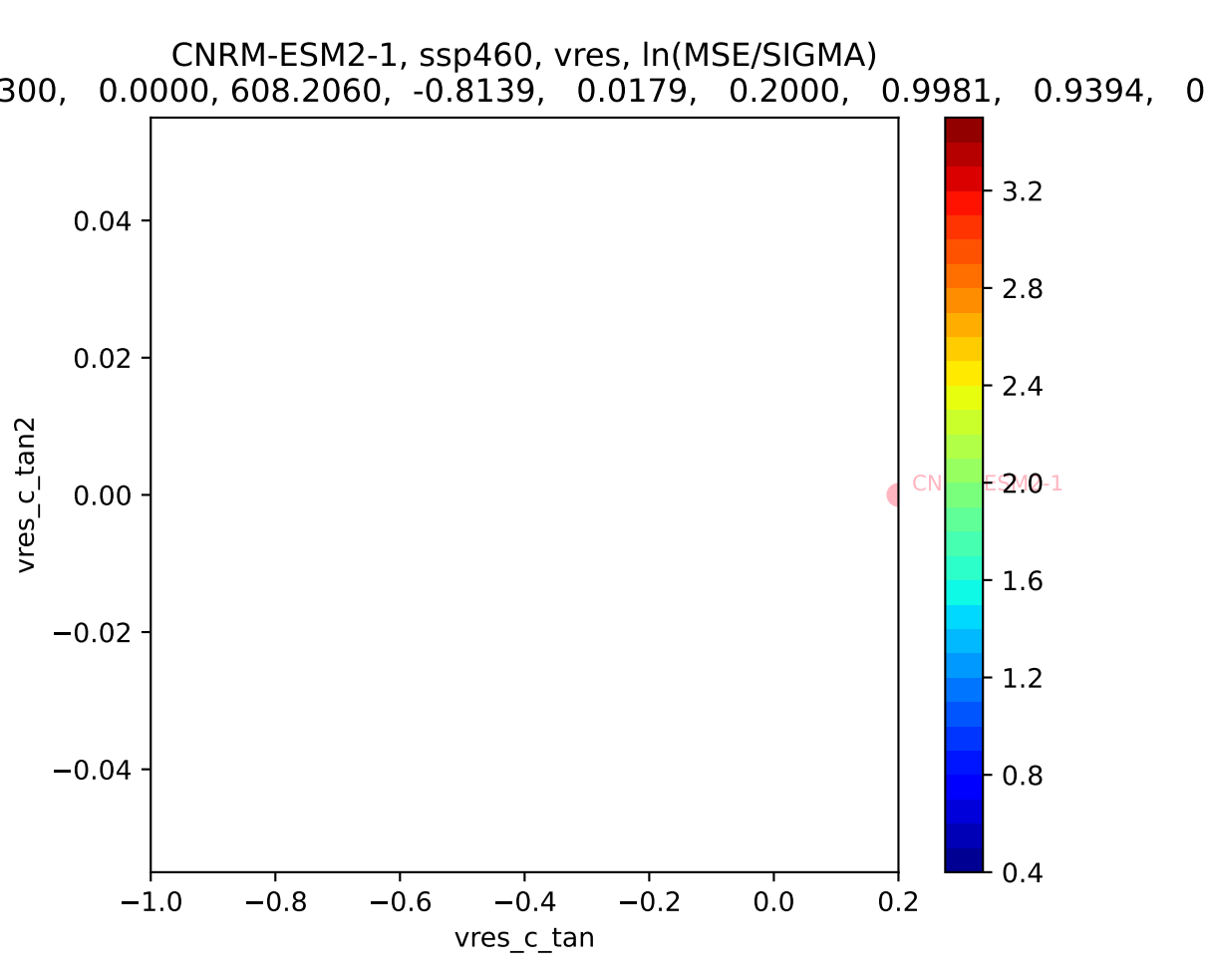

CNRM-ESM2-1, ssp460, vres
ESM
Fit
vres
c_atm

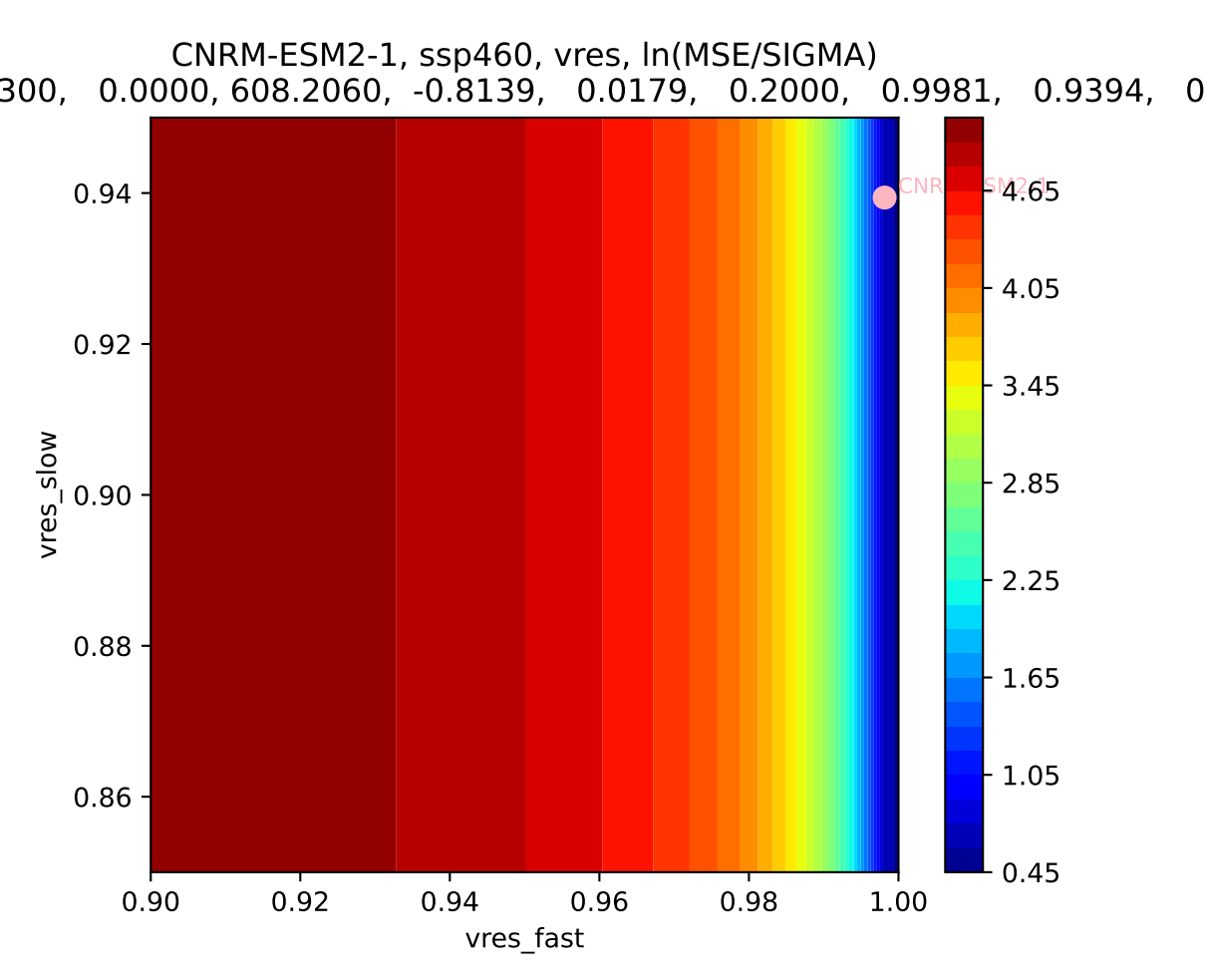

CNRM-ESM2-1, ssp460, vres
ESM-Fit
vres, ESM - FIT
c_atm


CNRM-ESM2-1, ssp460, vres, ln(MSE/SIGMA)
300, 0.0000, 608.2060, -0.8139, 0.0179, 0.2000, 0.9981, 0.9394, 0
CNRM-ESM2-1
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
8.7
7.5
6.3
5.1
3.9
2.7
1.5
0.3


CNRM-ESM2-1, ssp460, vres, ln(MSE/SIGMA)
300, 0.0000, 608.2060, -0.8139, 0.0179, 0.2000, 0.9981, 0.9394, 0
vres_c_half
vres_c_l
CNRM-ESM2-1
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
7.0
6.2
5.4
4.6
3.8
3.0
2.2
1.4
0.6


CNRM-ESM2-1, ssp460, vres, ln(MSE/SIGMA)
300, 0.0000, 608.2060, -0.8139, 0.0179, 0.2000, 0.9981, 0.9394, 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, ssp460, vres, ln(MSE/SIGMA)
300, 0.0000, 608.2060, -0.8139, 0.0179, 0.2000, 0.9981, 0.9394, 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
3.2
2.8
2.4
2.0
1.6
1.2
0.8
0.4


CNRM-ESM2-1, ssp460, vres, ln(MSE/SIGMA)
300, 0.0000, 608.2060, -0.8139, 0.0179, 0.2000, 0.9981, 0.9394, 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
4.65
4.05
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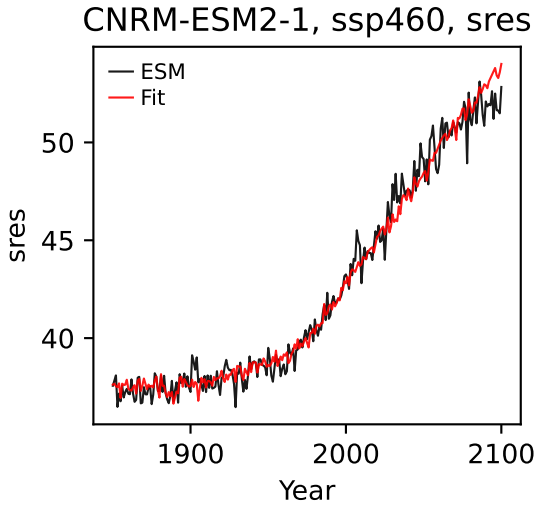
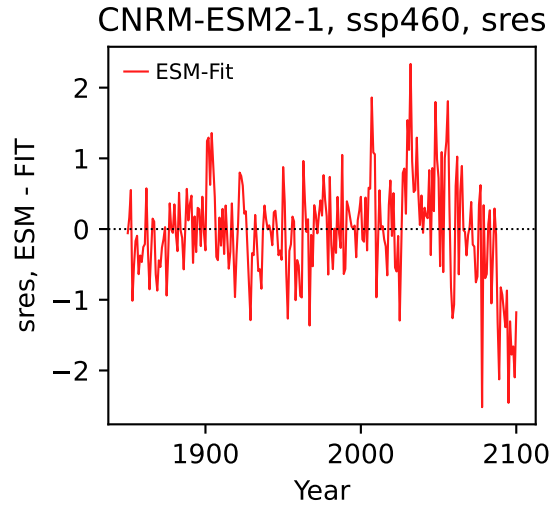
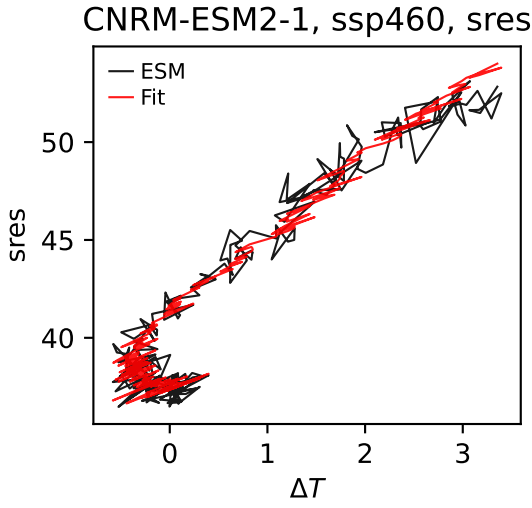
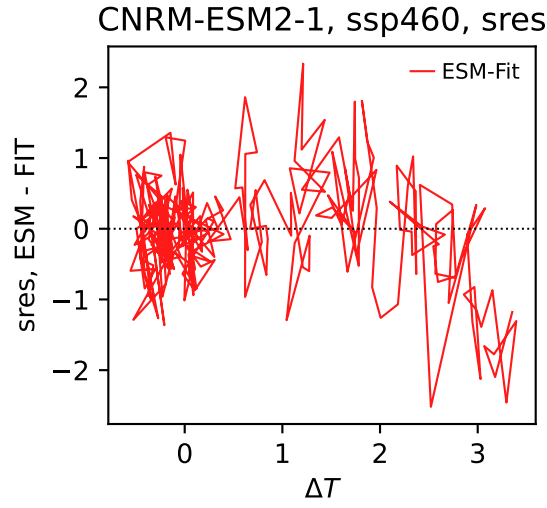
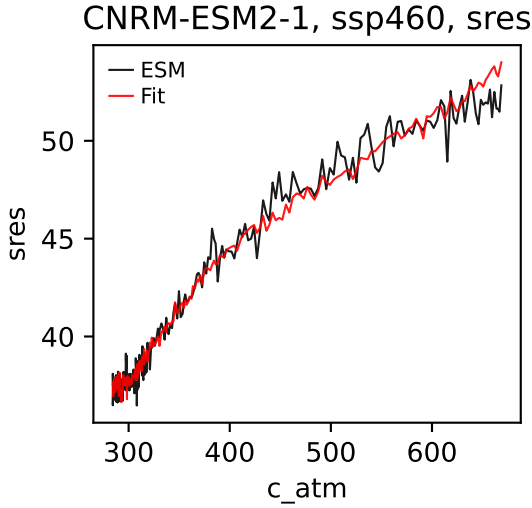
1.65
1.05
0.45

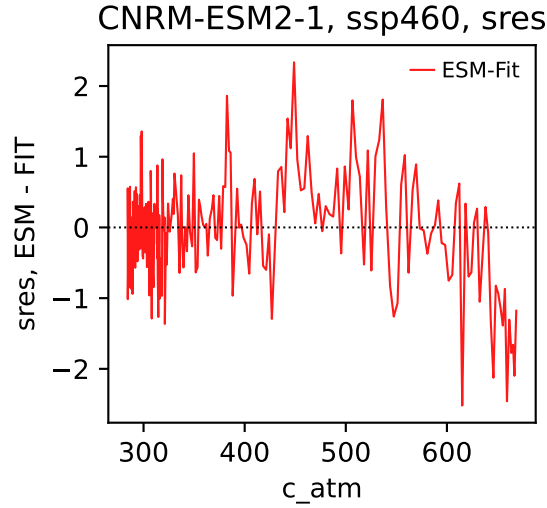

CNRM-ESM2-1, ssp460, sres
ESM
Fit
sres
Year

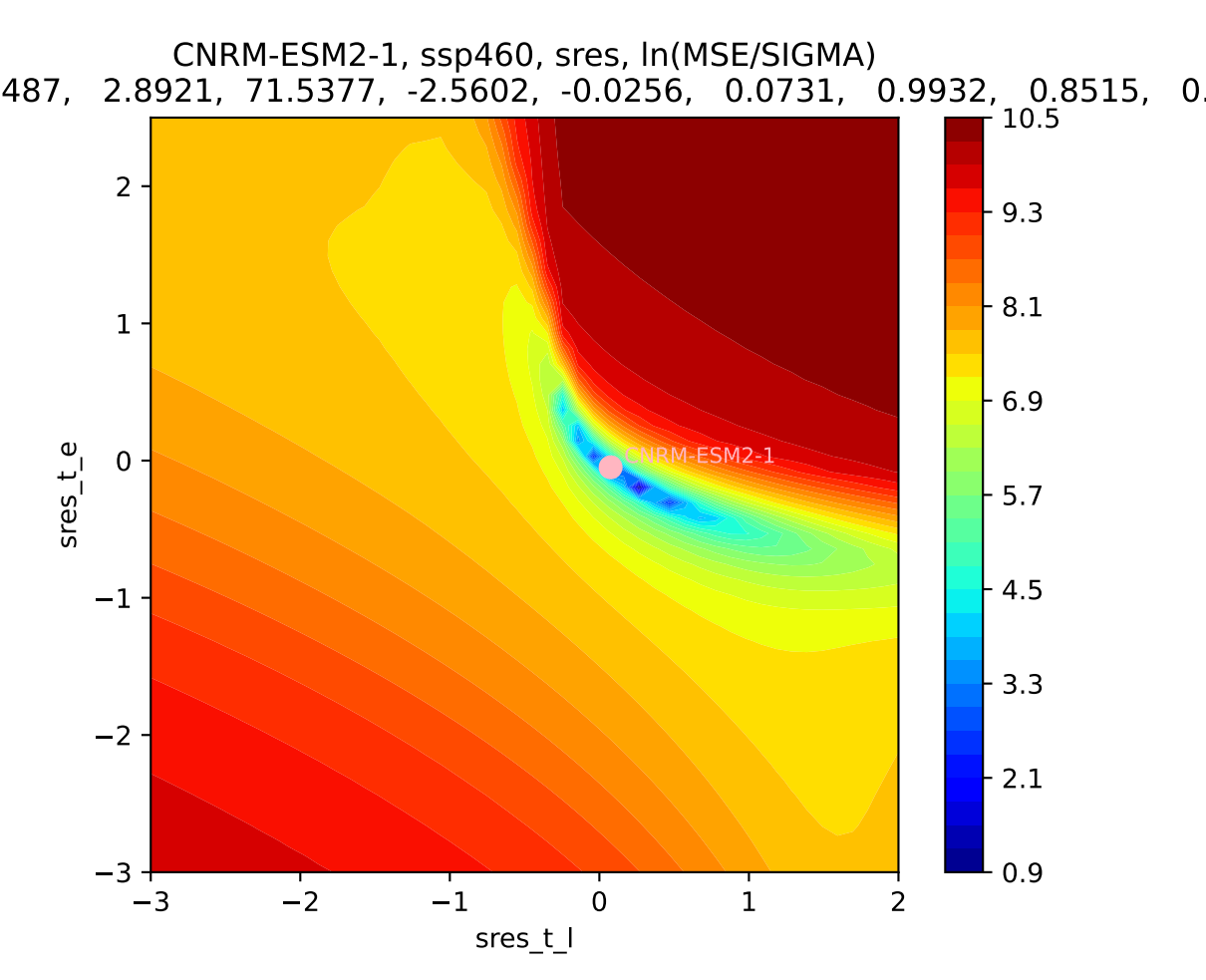

CNRM-ESM2-1, ssp460, sres
ESM-Fit
sres, ESM - FIT
Year

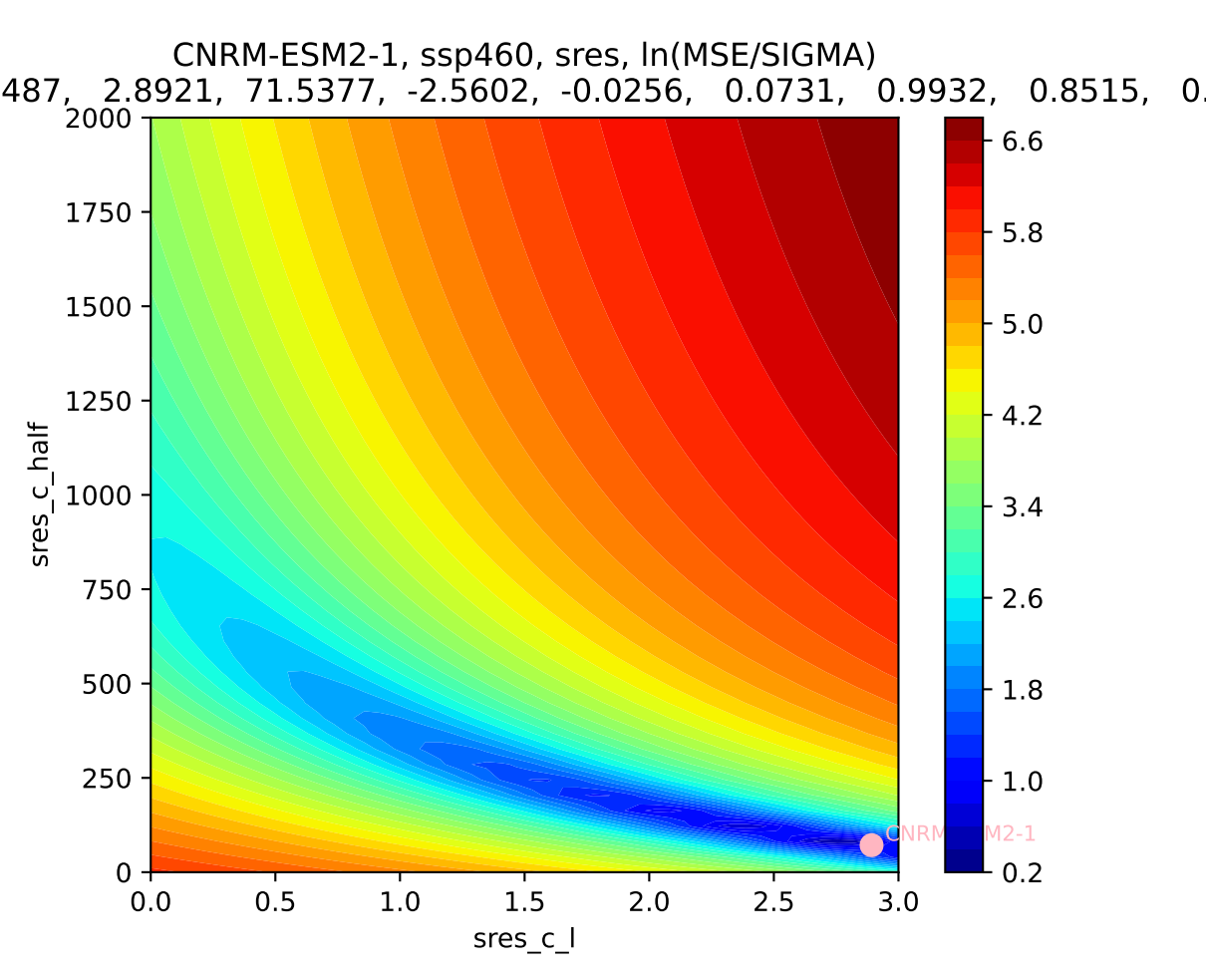

CNRM-ESM2-1, ssp460, sres
ESM
Fit
sres
ΔT

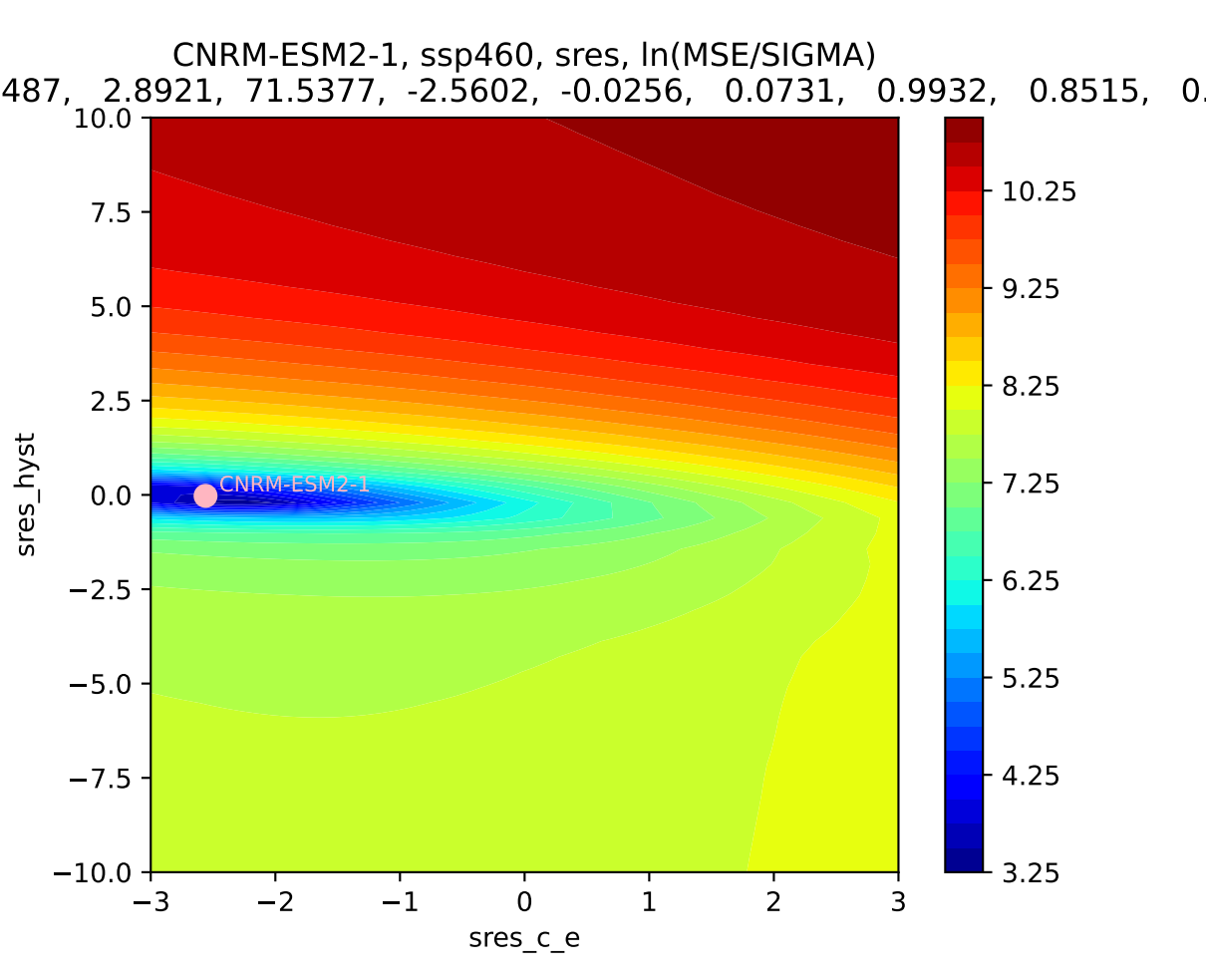

CNRM-ESM2-1, ssp460, sres
ESM-Fit
sres, ESM - FIT
ΔT

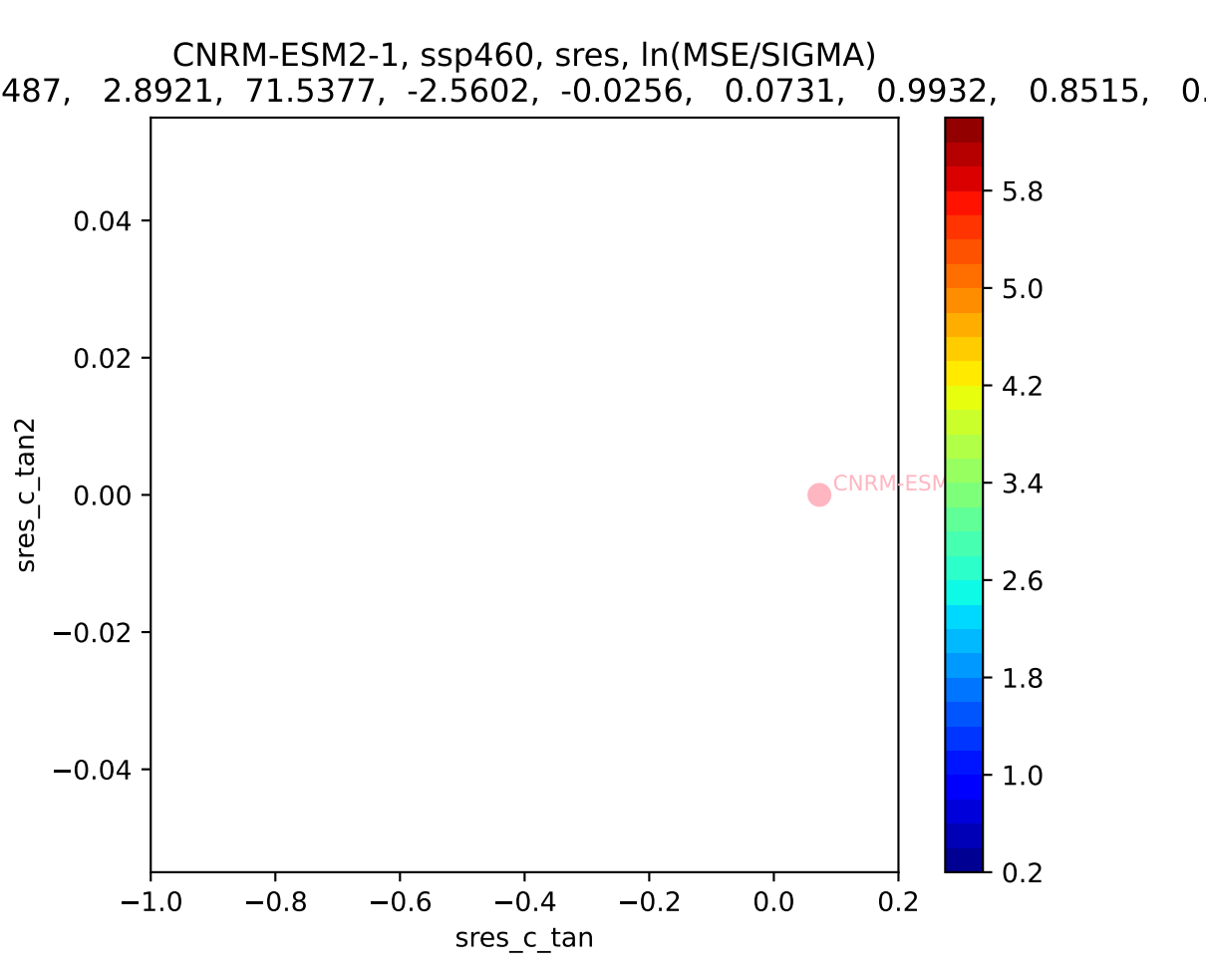

CNRM-ESM2-1, ssp460, sres
ESM
Fit
sres
c_atm

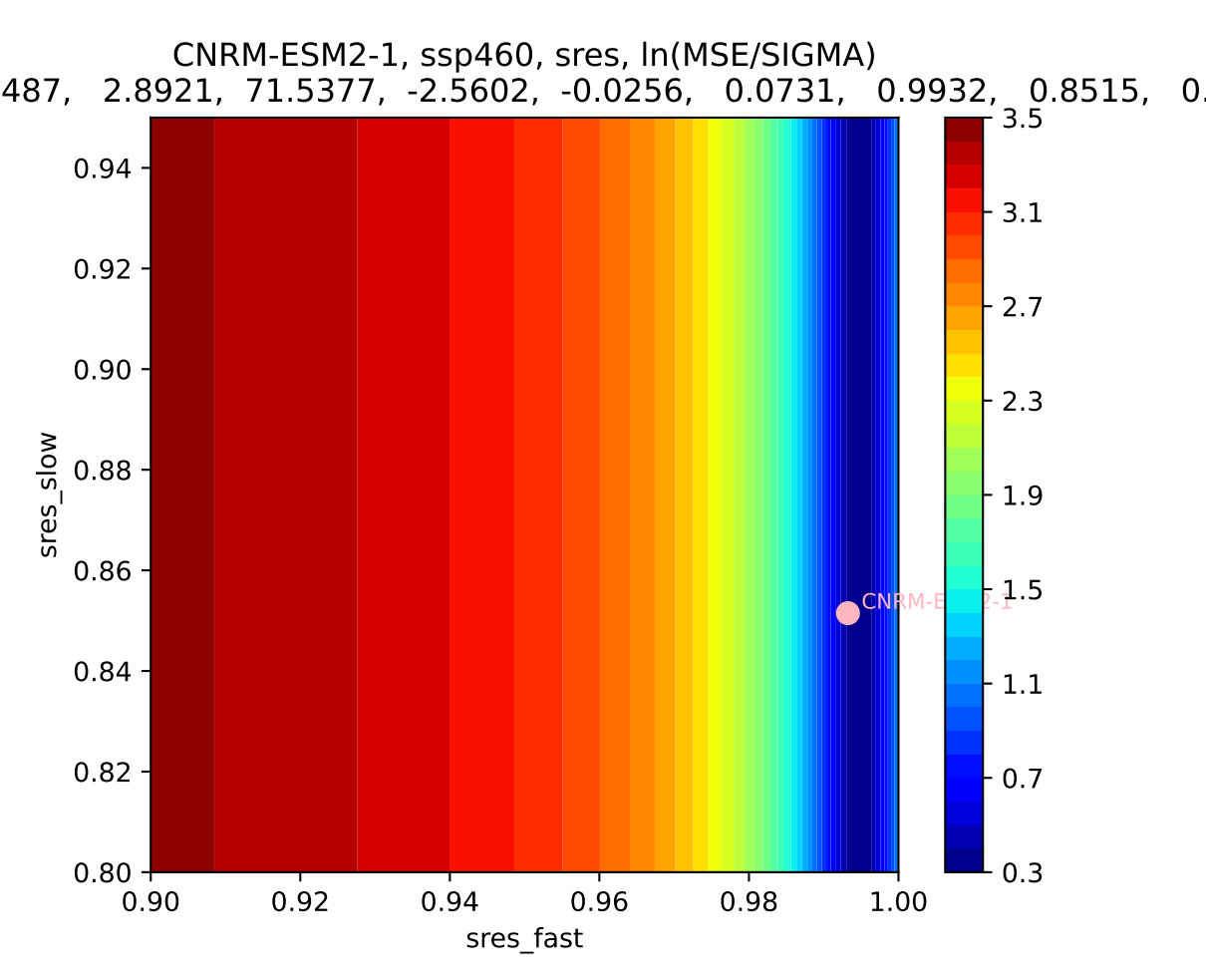

CNRM-ESM2-1, ssp460, sres
ESM-Fit
sres, ESM - FIT
c_atm

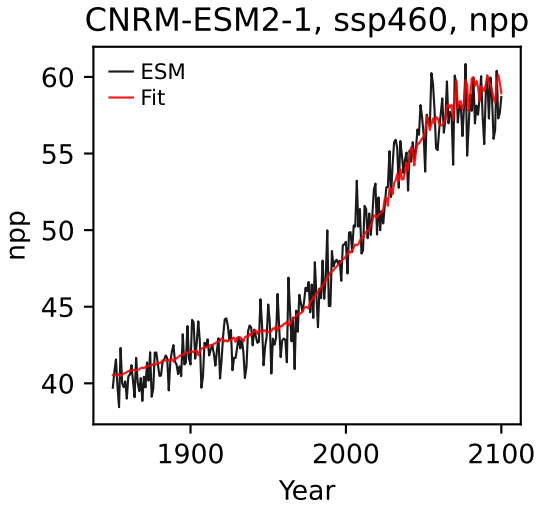

CNRM-ESM2-1, ssp460, sres, ln(MSE/SIGMA)
487, 2.8921, 71.5377, -2.5602, -0.0256, 0.0731, 0.9932, 0.8515, 0.
CNRM-ESM2-1
sres_t_e
sres_t_l
−3
−2
−1
0
1
2
10.5
9.3
8.1
6.9
5.7
4.5
3.3
2.1
0.9

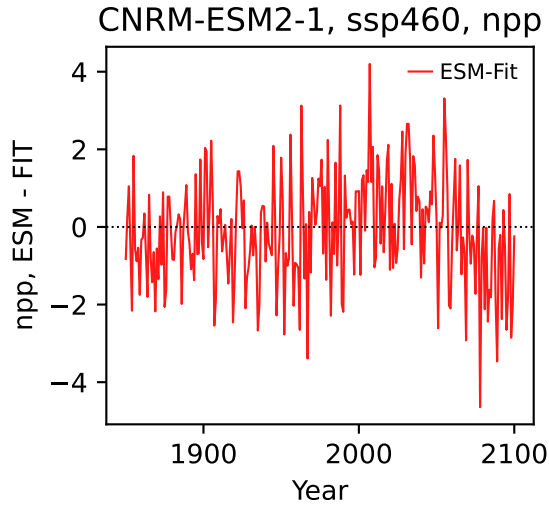

CNRM-ESM2-1, ssp460, sres, ln(MSE/SIGMA)
487, 2.8921, 71.5377, -2.5602, -0.0256, 0.0731, 0.9932, 0.8515, 0.
sres_c_half
sres_c_l
2000
1750
1500
1250
1000
750
500
250
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
6.6
5.8
5.0
4.2
3.4
2.6
1.8
1.0
0.2
CNRM-ESM2-1

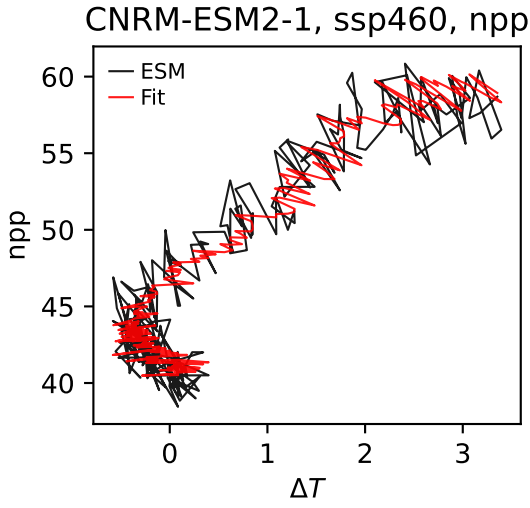

CNRM-ESM2-1, ssp460, sres, ln(MSE/SIGMA)
487, 2.8921, 71.5377, -2.5602, -0.0256, 0.0731, 0.9932, 0.8515, 0.
CNRM-ESM2-1
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.25
9.25
8.25
7.25
6.25
5.25
4.25
3.25

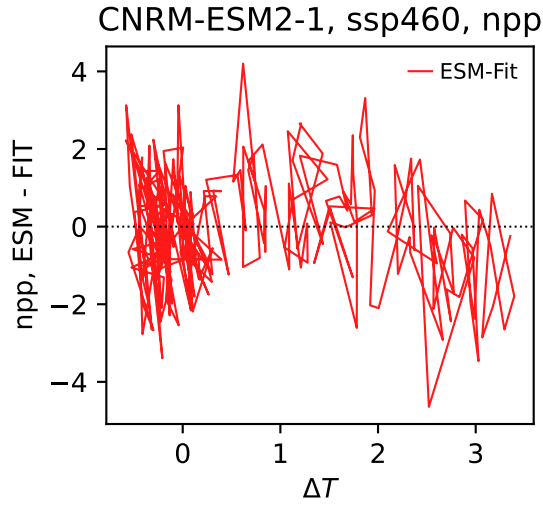

CNRM-ESM2-1, ssp460, sres, ln(MSE/SIGMA)
487, 2.8921, 71.5377, -2.5602, -0.0256, 0.0731, 0.9932, 0.8515, 0.
0.04
0.02
0.00
−0.02
−0.04
sres_c_tan2
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
sres_c_tan
5.8
5.0
4.2
3.4
2.6
1.8
1.0
0.2

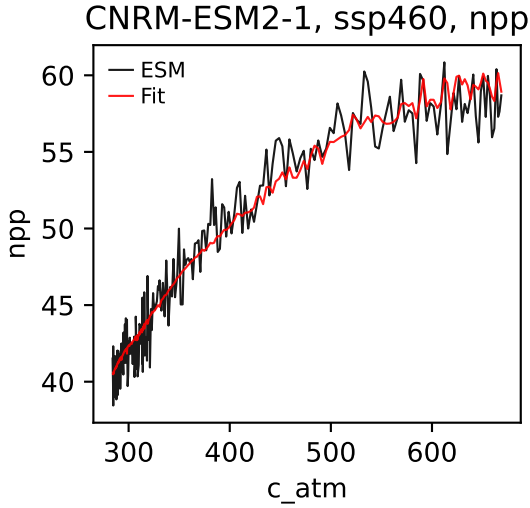

CNRM-ESM2-1, ssp460, sres, ln(MSE/SIGMA)
487, 2.8921, 71.5377, -2.5602, -0.0256, 0.0731, 0.9932, 0.8515, 0.
sres_slow
sres_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
3.5
3.1
2.7
2.3
1.9
1.5
1.1
0.7
0.3

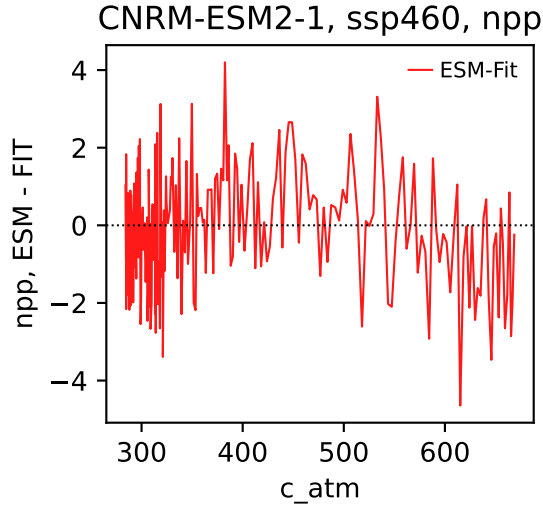

CNRM-ESM2-1, ssp460, npp
ESM
Fit
npp
Year

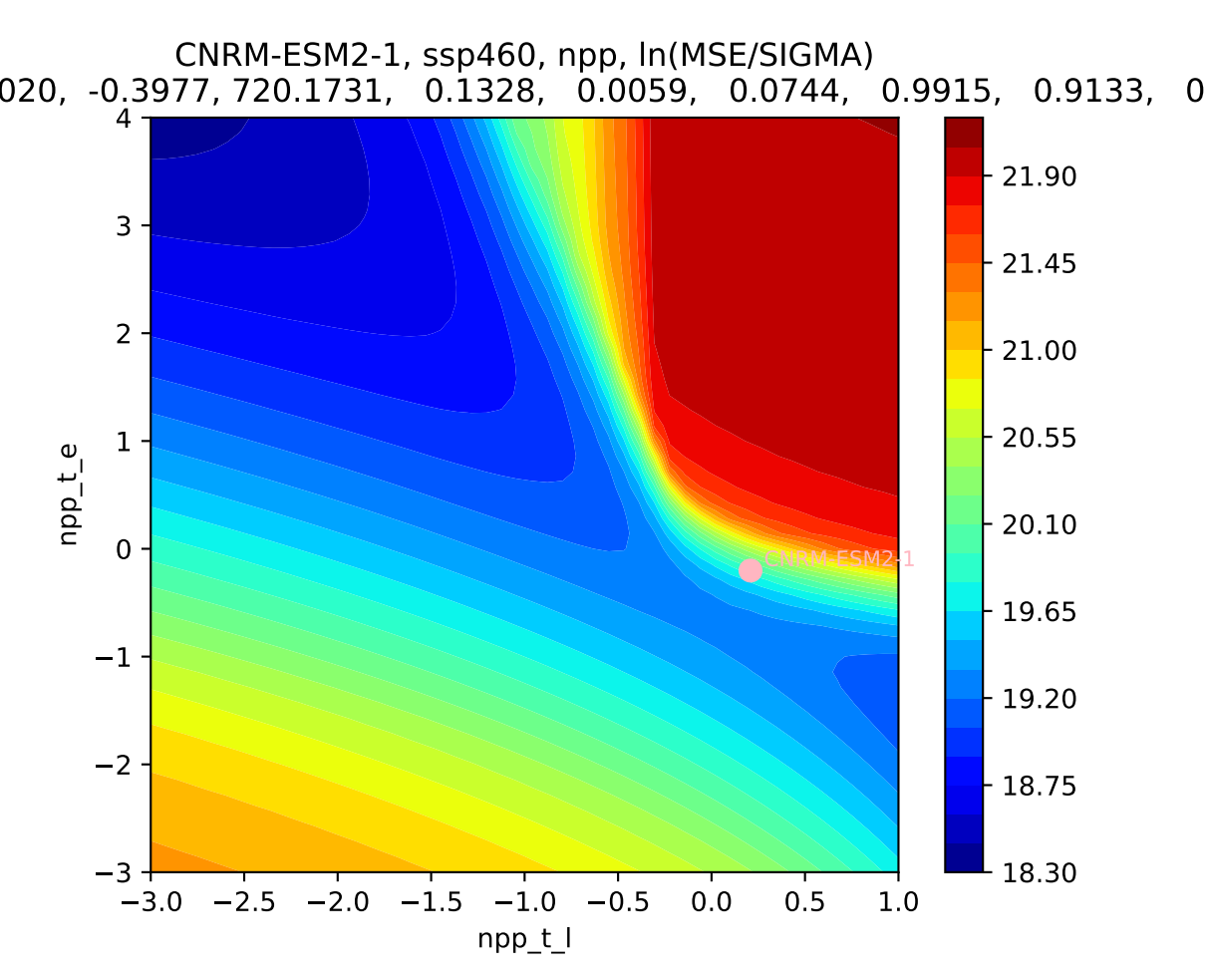

CNRM-ESM2-1, ssp460, npp
ESM-Fit
npp, ESM - FIT
Year

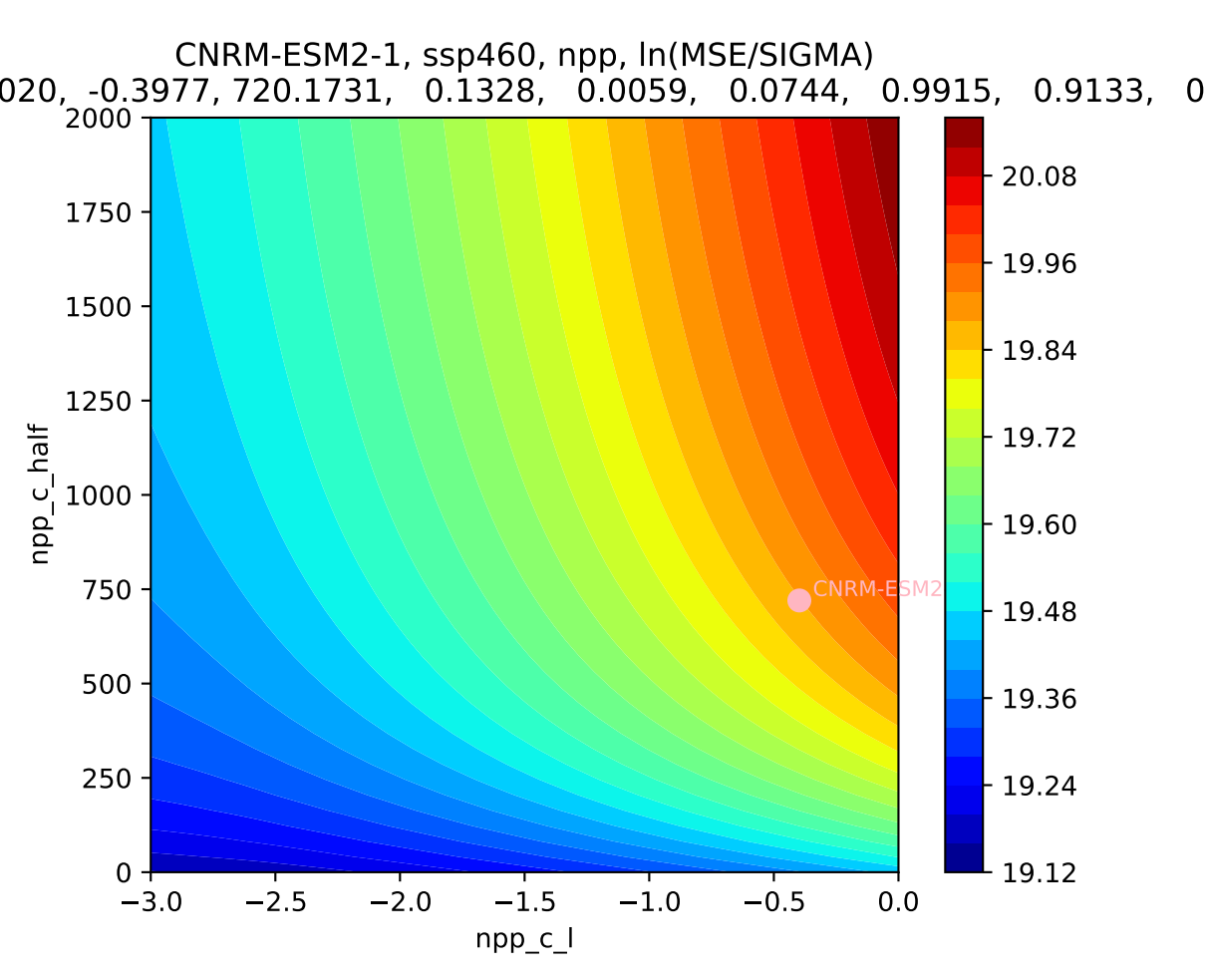

CNRM-ESM2-1, ssp460, npp
ESM
Fit
npp
ΔT

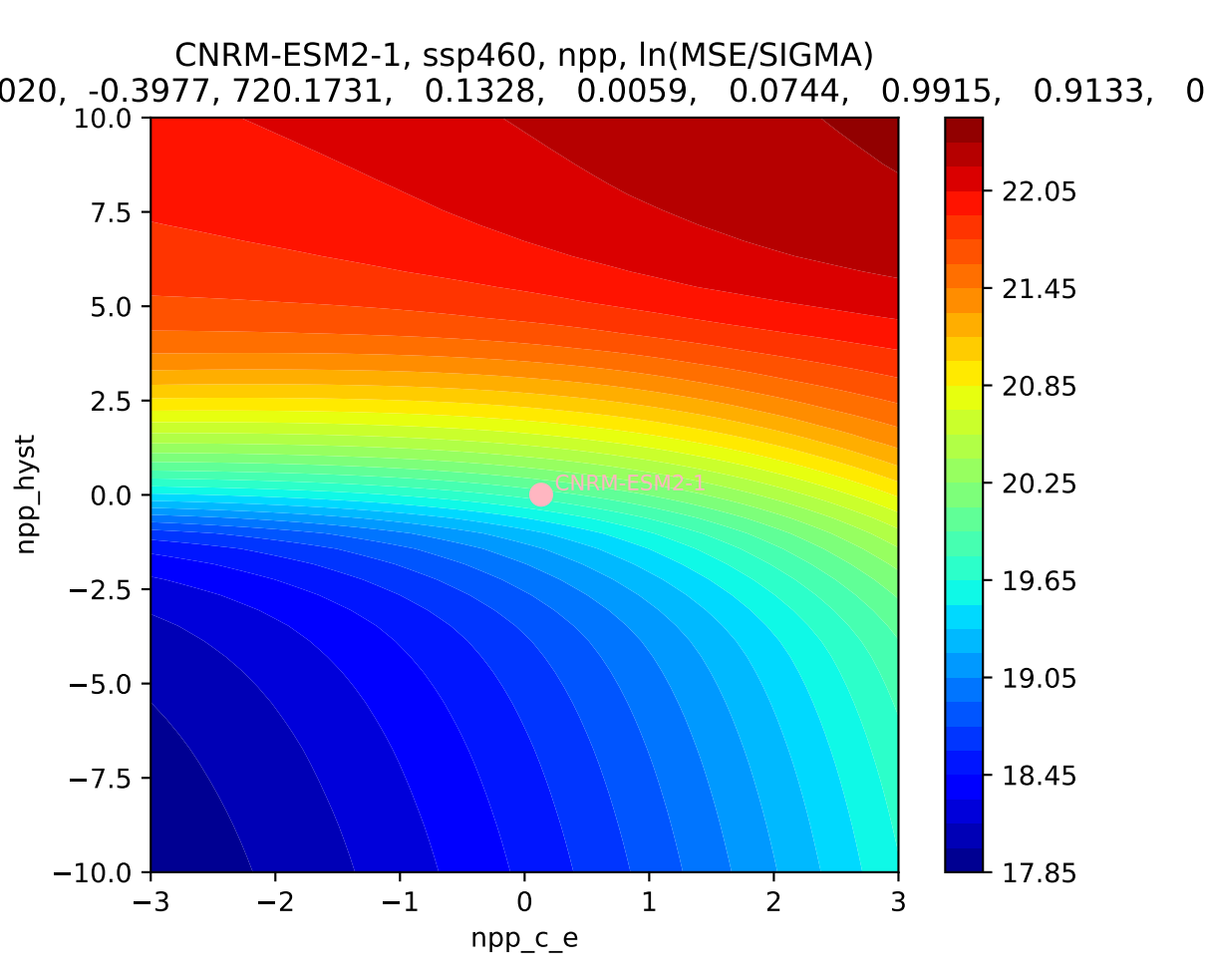

CNRM-ESM2-1, ssp460, npp
ESM-Fit
npp, ESM - FIT
ΔT

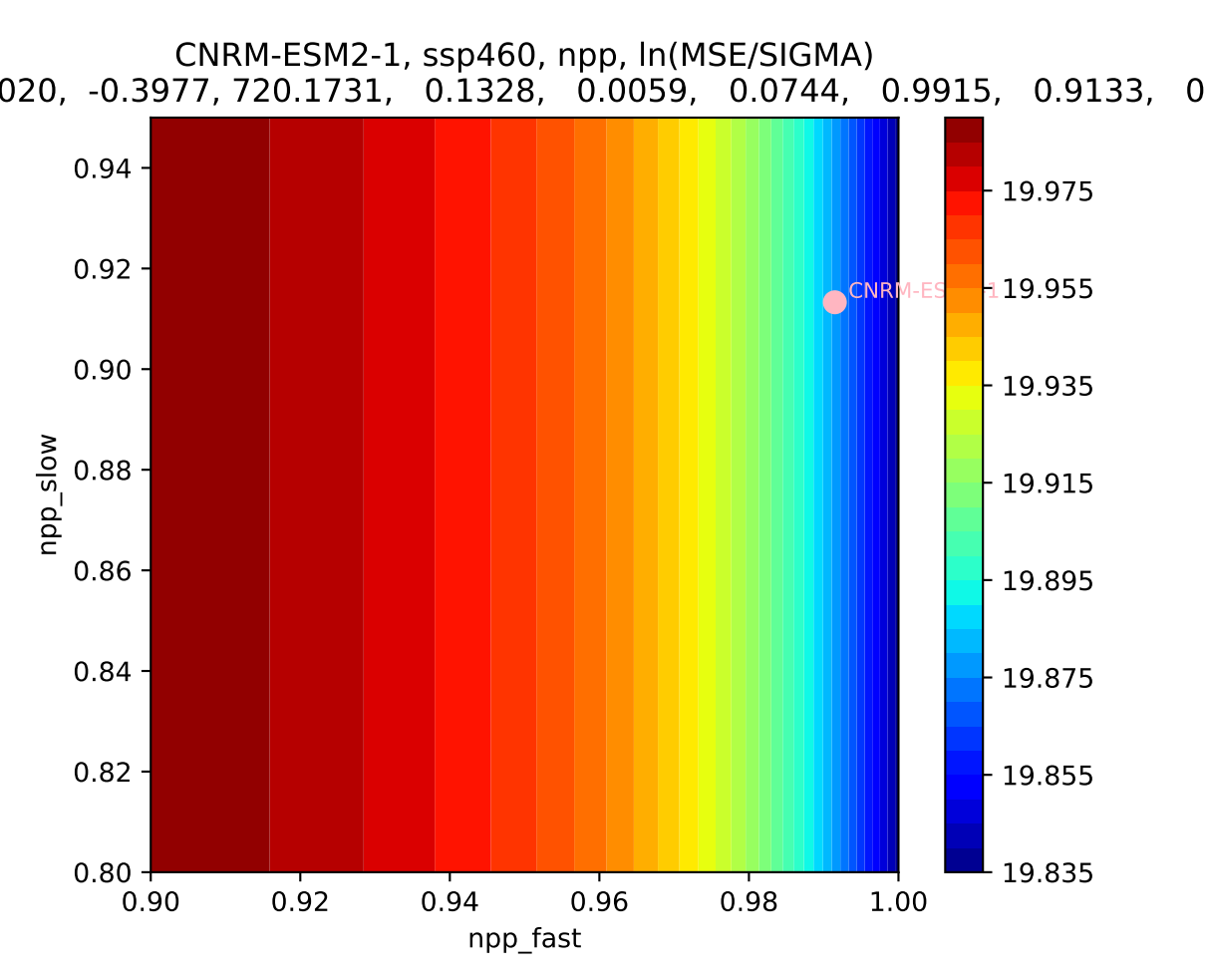

CNRM-ESM2-1, ssp460, npp
ESM
Fit
npp
c_atm

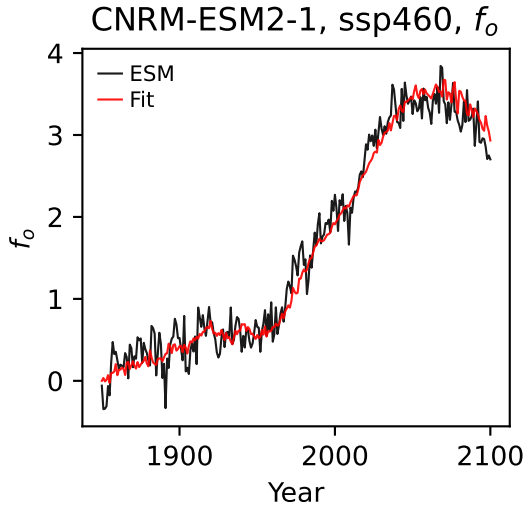

CNRM-ESM2-1, ssp460, npp
ESM-Fit
npp, ESM - FIT
c_atm

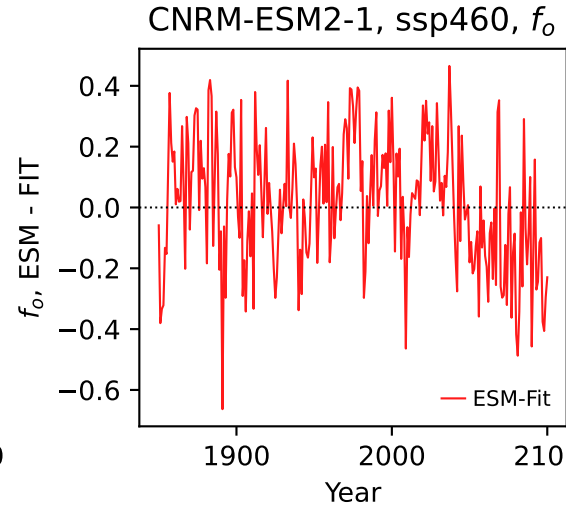

CNRM-ESM2-1, ssp460, npp, ln(MSE/SIGMA)
020, -0.3977, 720.1731, 0.1328, 0.0059, 0.0744, 0.9915, 0.9133, 0
npp_t_e
npp_t_l
CNRM-ESM2-1
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
21.90
21.45
21.00
20.55
20.10
19.65
19.20
18.75
18.30

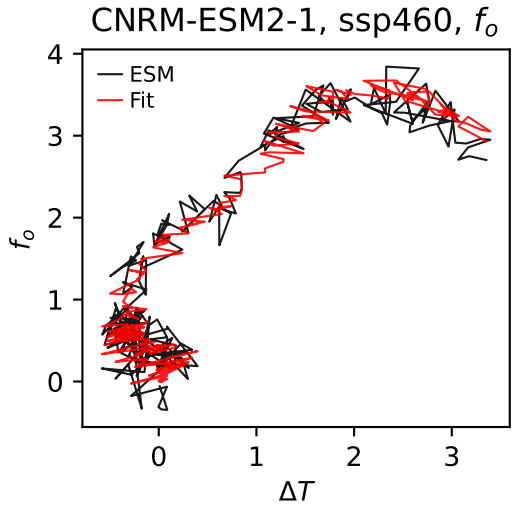

CNRM-ESM2-1, ssp460, npp, ln(MSE/SIGMA)
020, -0.3977, 720.1731, 0.1328, 0.0059, 0.0744, 0.9915, 0.9133, 0
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
npp_c_l
CNRM-ESM2
20.08
19.96
19.84
19.72
19.60
19.48
19.36
19.24
19.12

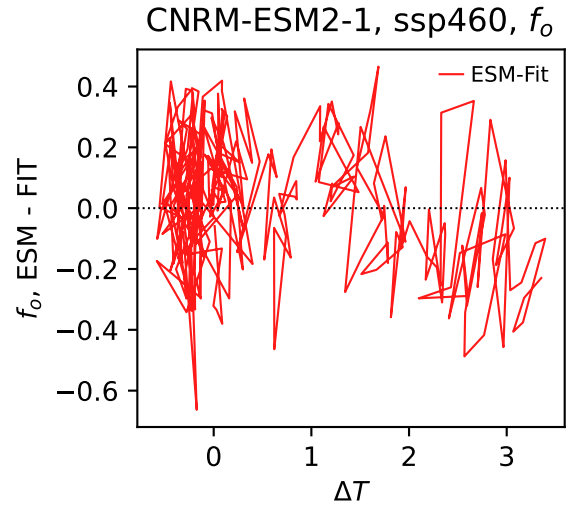

CNRM-ESM2-1, ssp460, npp, ln(MSE/SIGMA)
020, -0.3977, 720.1731, 0.1328, 0.0059, 0.0744, 0.9915, 0.9133, 0
CNRM-ESM2-1
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.05
21.45
20.85
20.25
19.65
19.05
18.45
17.85

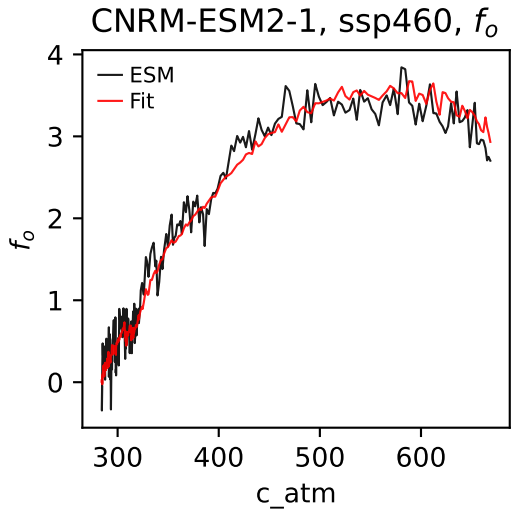

CNRM-ESM2-1, ssp460, npp, ln(MSE/SIGMA)
020, -0.3977, 720.1731, 0.1328, 0.0059, 0.0744, 0.9915, 0.9133, 0
CNRM-ES
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
npp_slow
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast
19.975
19.955
19.935
19.915
19.895
19.875
19.855
19.835

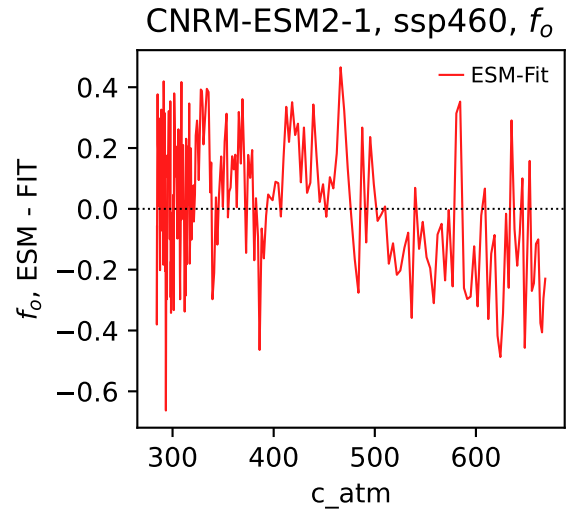

CNRM-ESM2-1, ssp460, f_o
ESM
Fit
f_o
Year

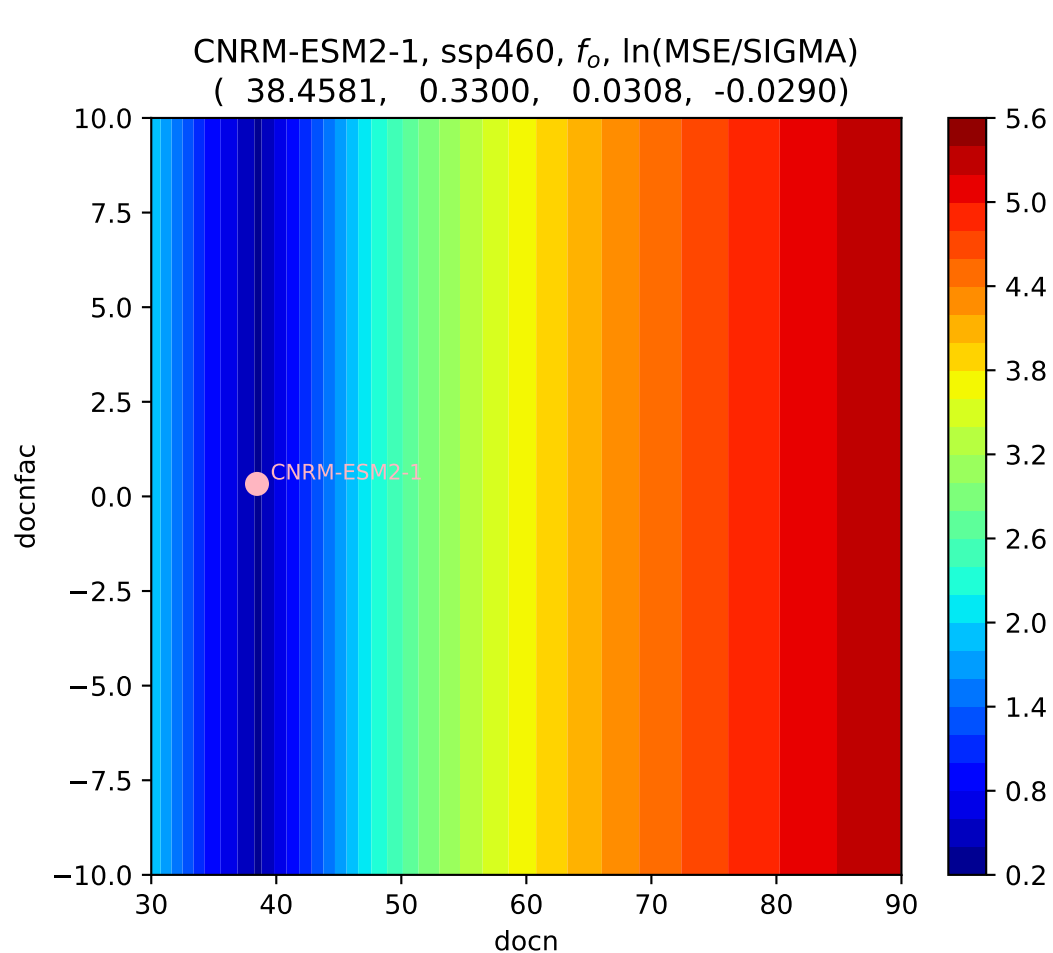

CNRM-ESM2-1, ssp460, f_o
f_o, ESM - FIT
ESM-Fit
Year

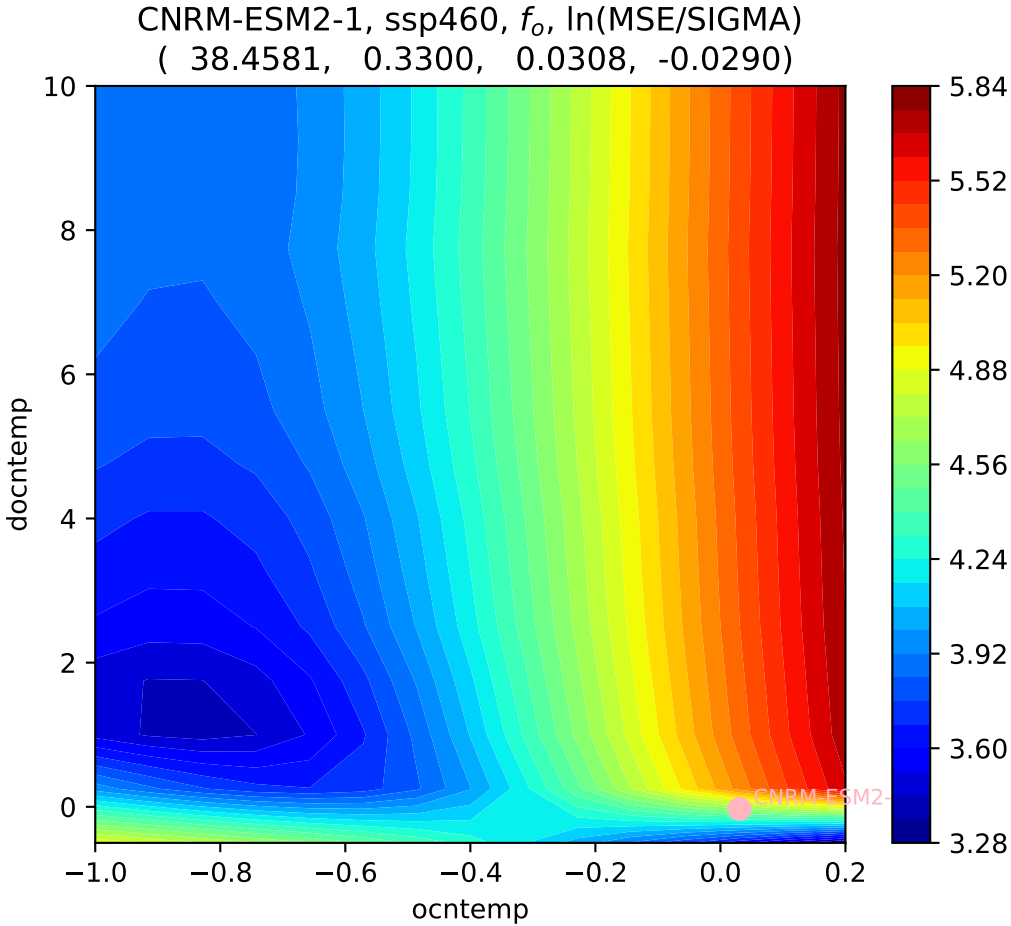

CNRM-ESM2-1, ssp460, f_o
ESM
Fit
f_o
ΔT


CNRM-ESM2-1, ssp460, f_o
f_o, ESM - FIT
ESM-Fit
ΔT


CNRM-ESM2-1, ssp460, f_o
ESM
Fit
f_o
c_atm


CNRM-ESM2-1, ssp460, f_o
f_o, ESM - FIT
ESM-Fit
c_atm


CNRM-ESM2-1, ssp460, f_o, ln(MSE/SIGMA)
(38.4581, 0.3300, 0.0308, -0.0290)
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
5.6
5.0
4.4
3.8
3.2
2.6
2.0
1.4
0.8
0.2


CNRM-ESM2-1, ssp460, f_o, ln(MSE/SIGMA)
(38.4581, 0.3300, 0.0308, -0.0290)
docntemp
ocntemp
10
8
6
4
2
0
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
5.84
5.52
5.20
4.88
4.56
4.24
3.92
3.60
3.28
CNRM-ESM2-