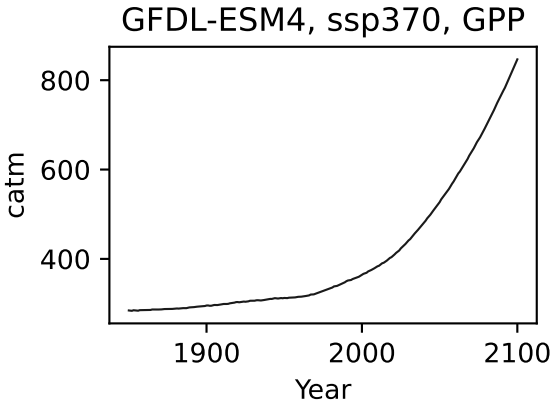
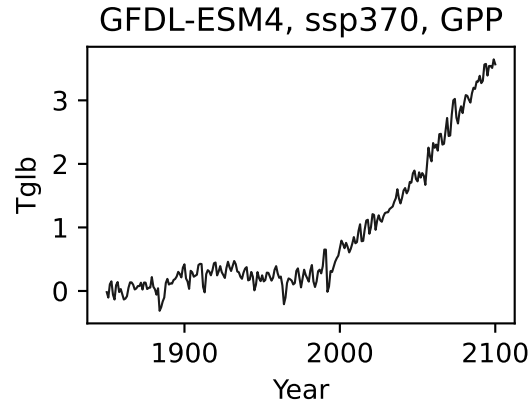
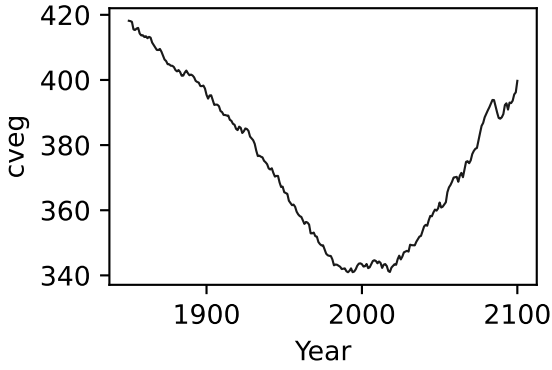
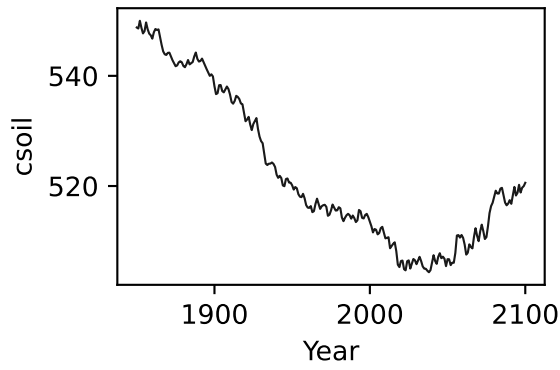
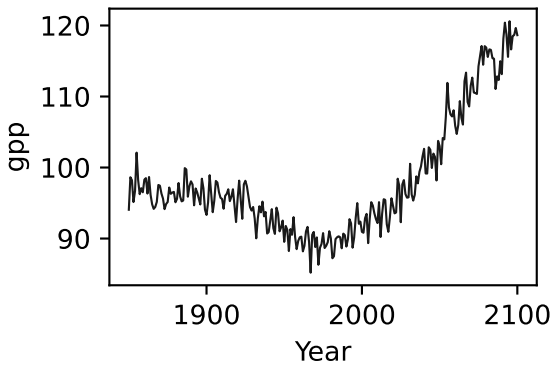
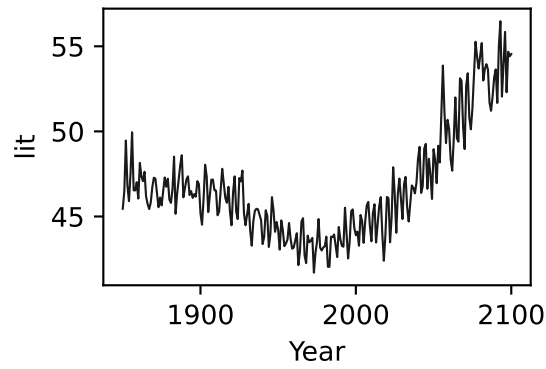

GFDL-ESM4, ssp370, GPP
catm
800
600
400
1900
2000
2100
Year

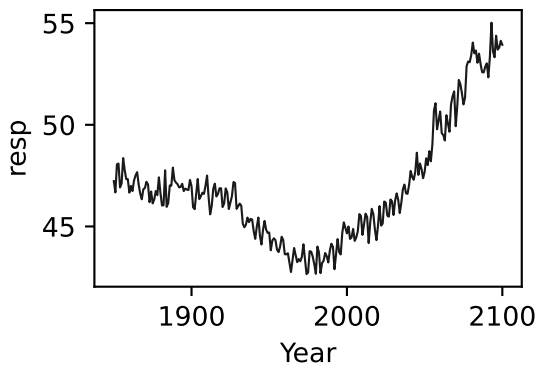

GFDL-ESM4, ssp370, GPP
Tglb
3
2
1
0
1900
2000
2100
Year

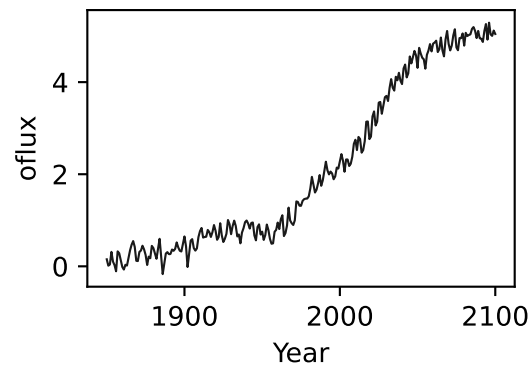

cveg
420
400
380
360
340
1900
2000
2100
Year

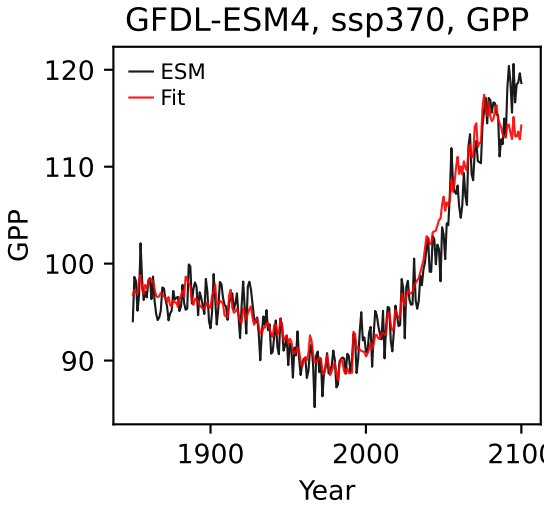

csoil
540
520
1900
2000
2100
Year

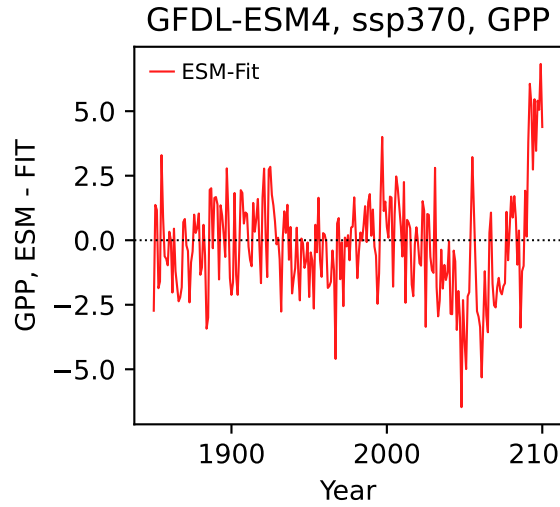

gpp
120
110
100
90
1900
2000
2100
Year

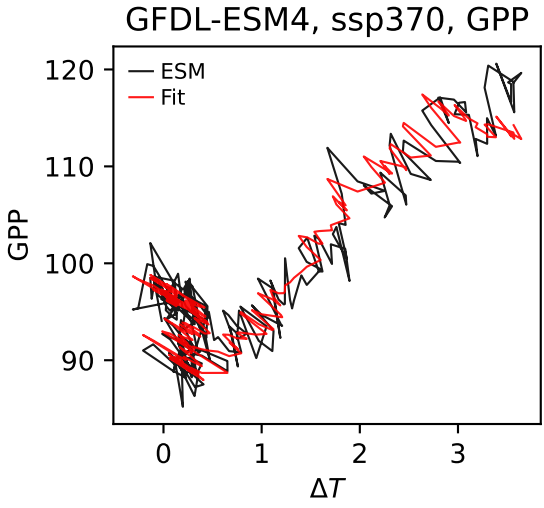

lit
55
50
45
1900
2000
2100
Year

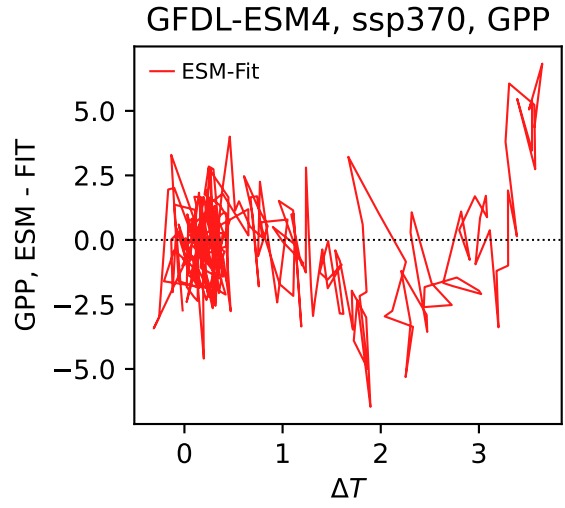

resp
55
50
45
1900
2000
2100
Year

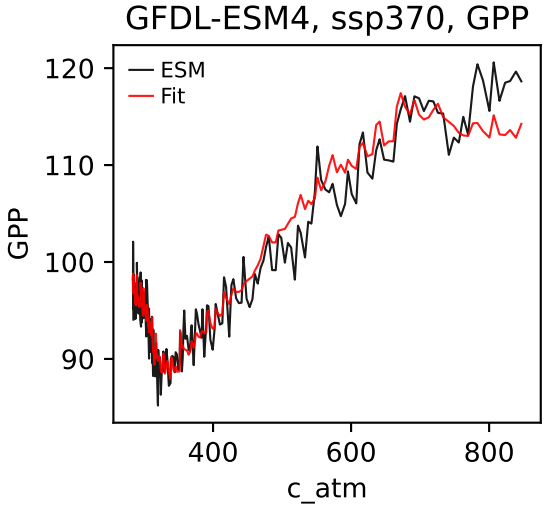

oflux
4
2
0
1900
2000
2100
Year

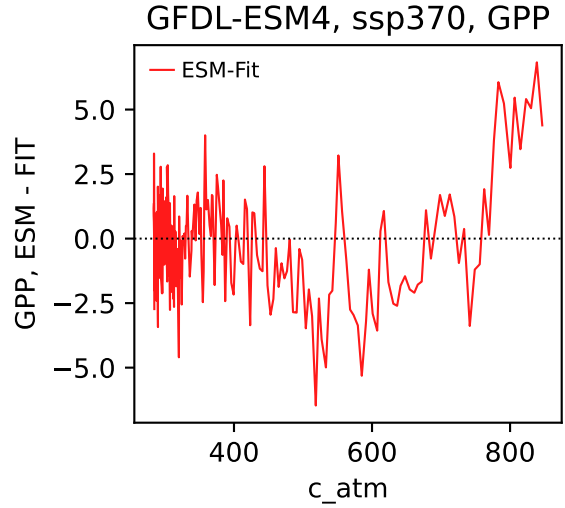

GFDL-ESM4, ssp370, GPP
ESM
Fit
GPP
Year

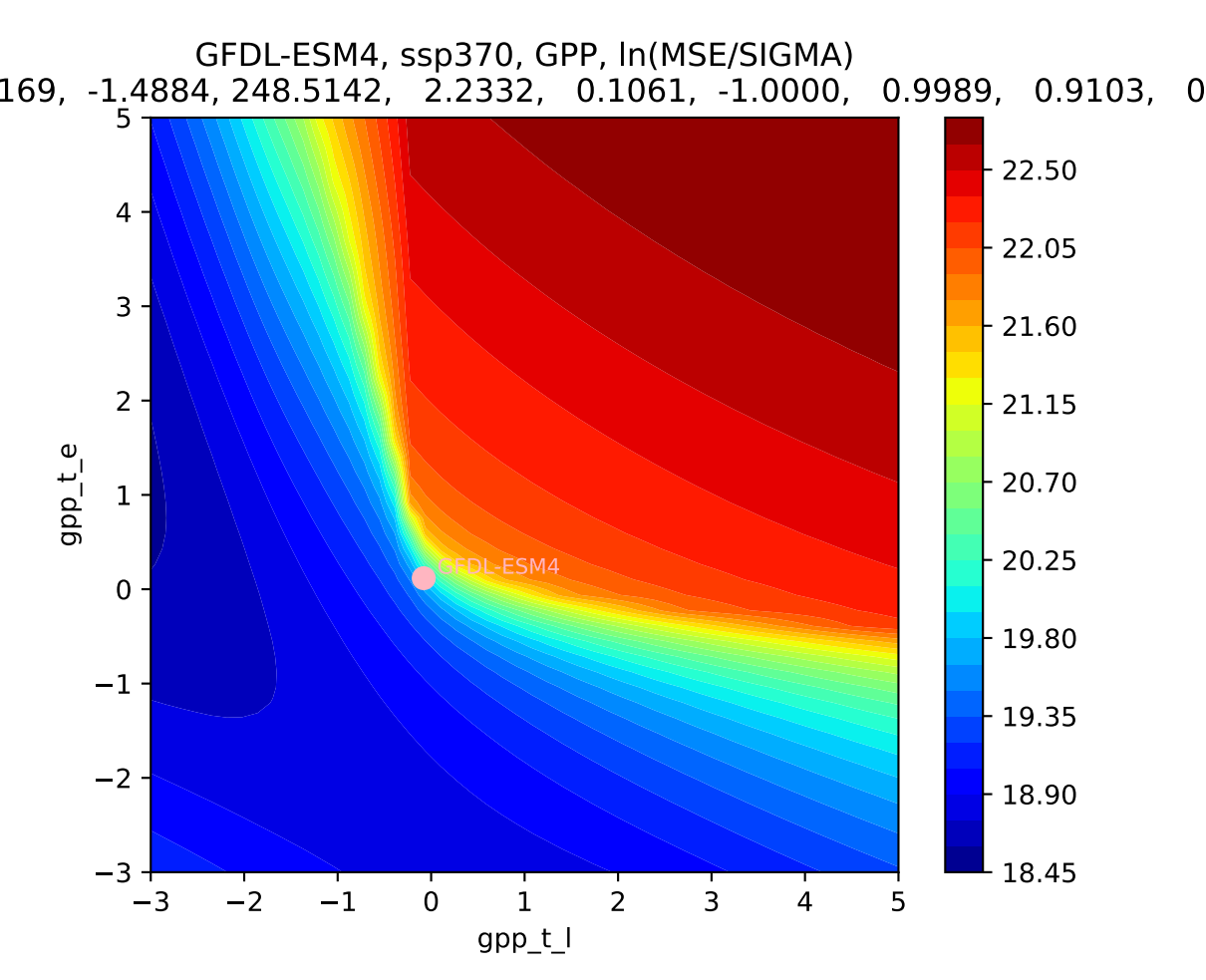

GFDL-ESM4, ssp370, GPP
ESM-Fit
GPP, ESM - FIT
Year

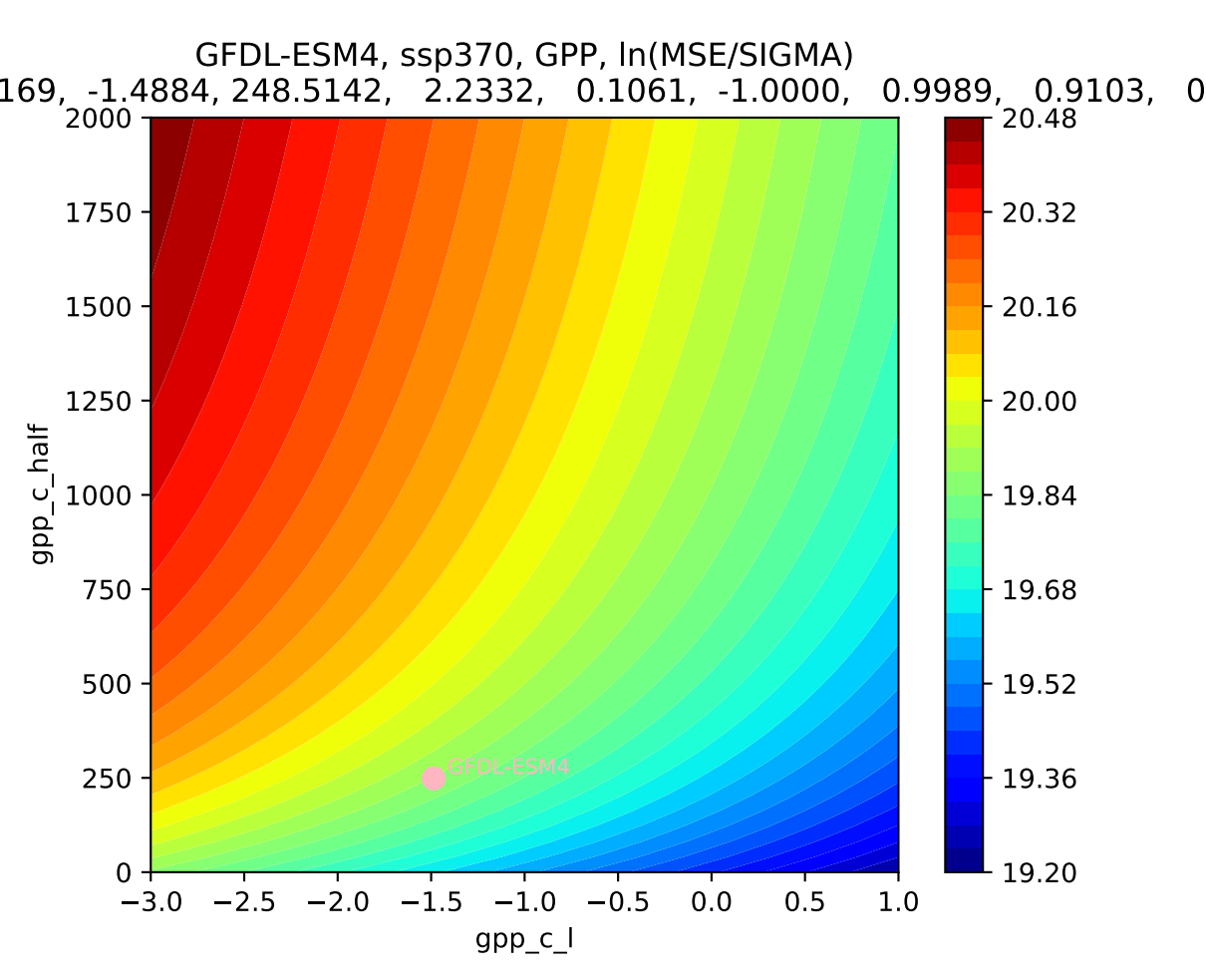

GFDL-ESM4, ssp370, GPP
ESM
Fit
GPP
ΔT

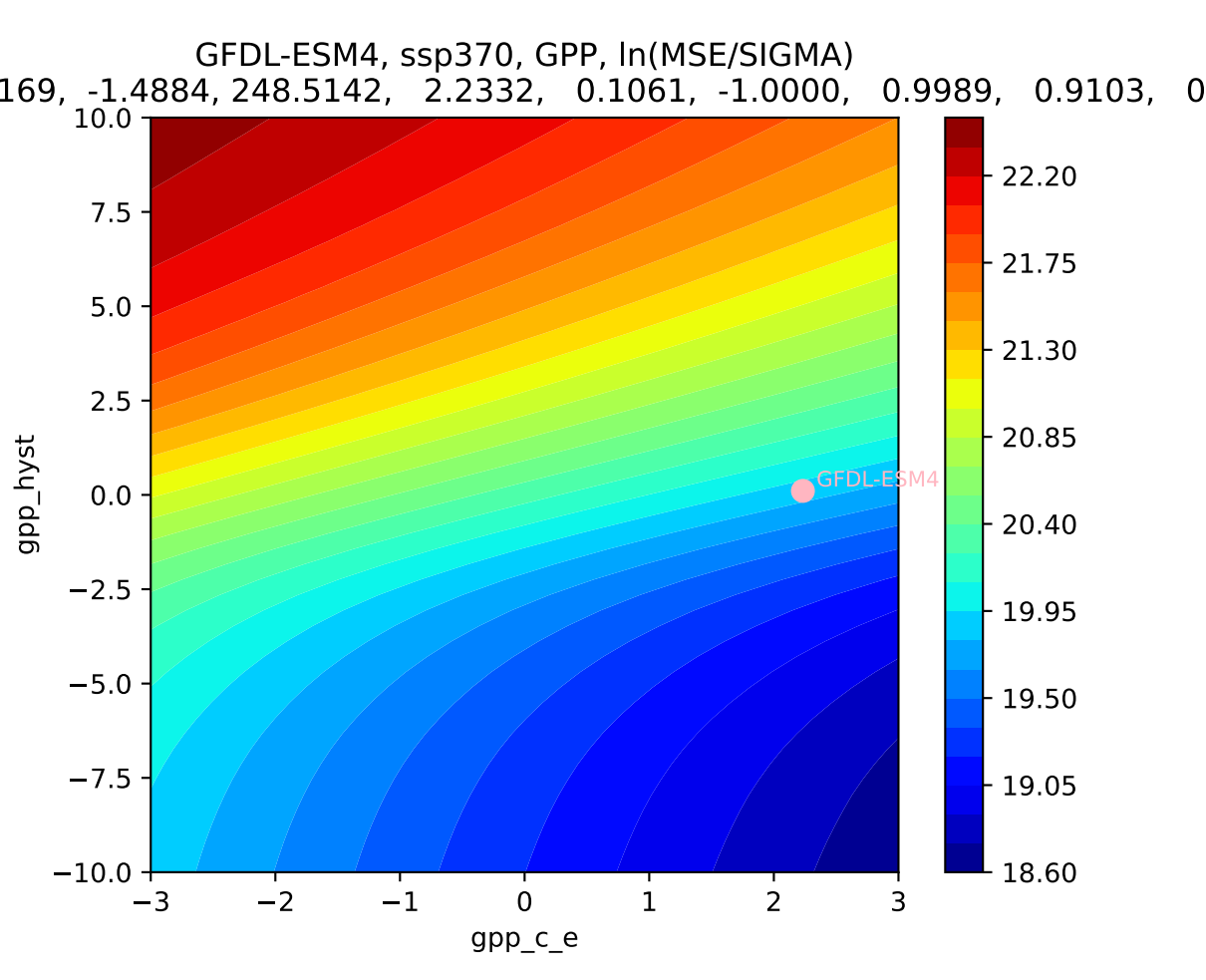

GFDL-ESM4, ssp370, GPP
ESM-Fit
GPP, ESM - FIT
ΔT

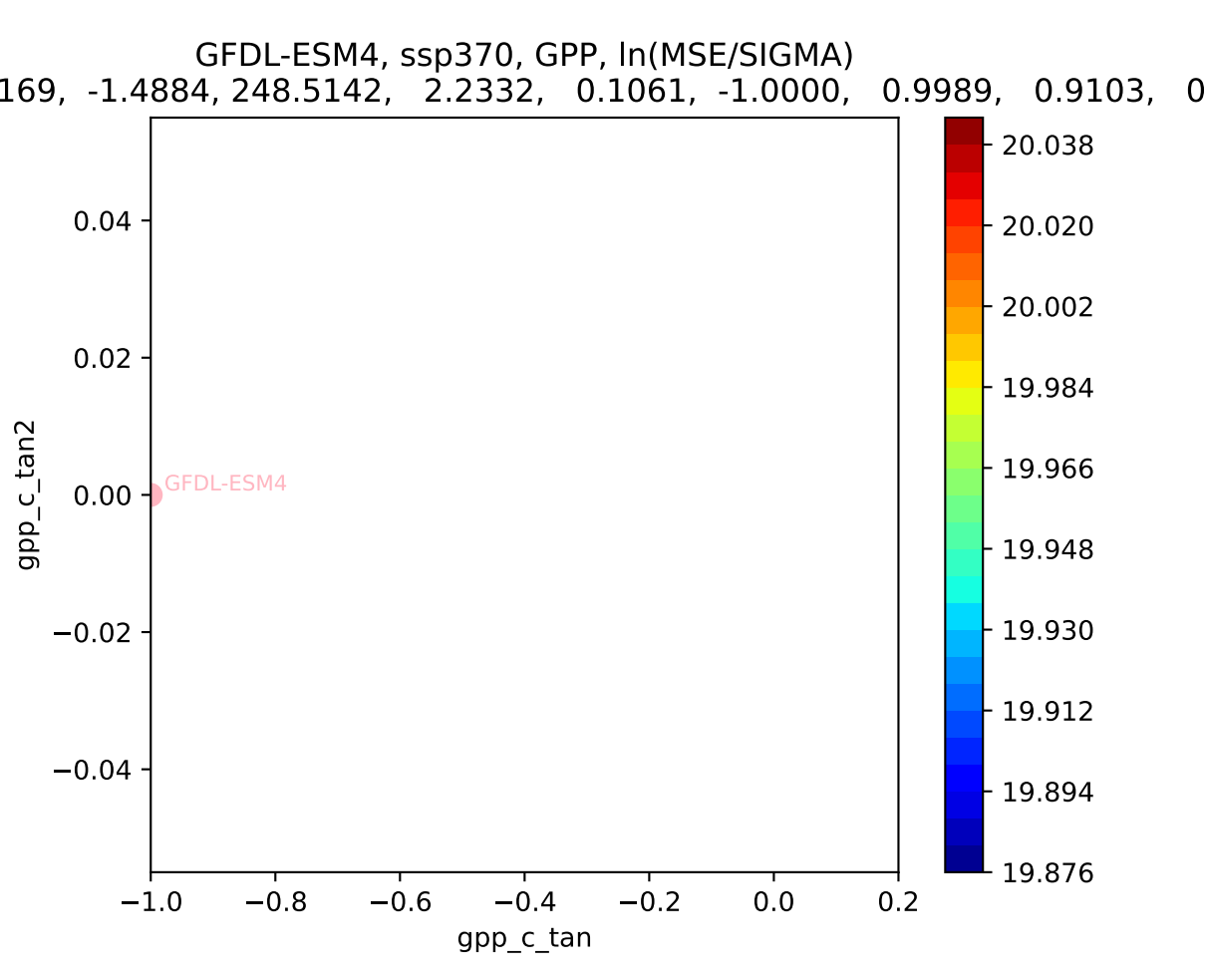

GFDL-ESM4, ssp370, GPP
ESM
Fit
GPP
c_atm

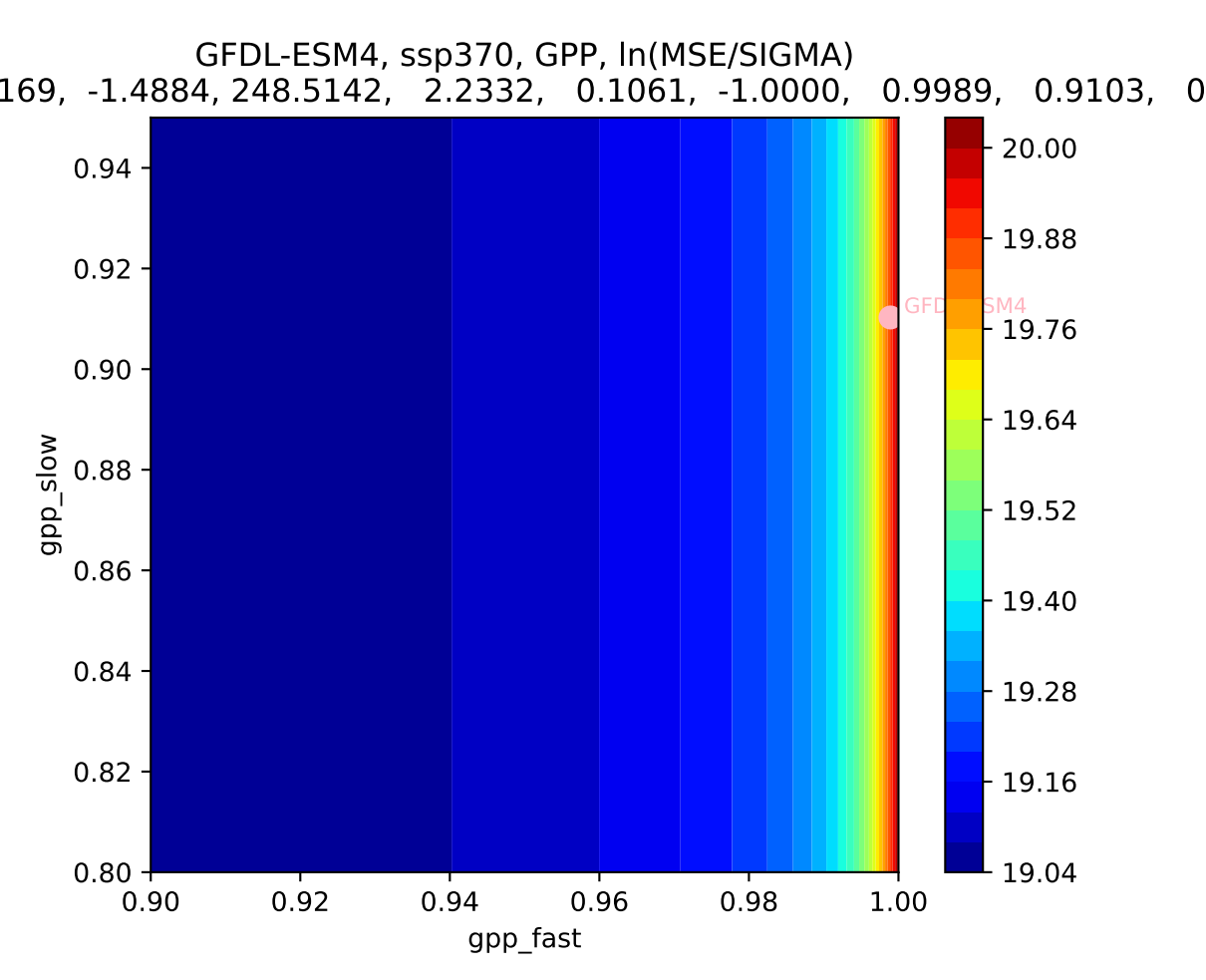

GFDL-ESM4, ssp370, GPP
ESM-Fit
GPP, ESM - FIT
c_atm

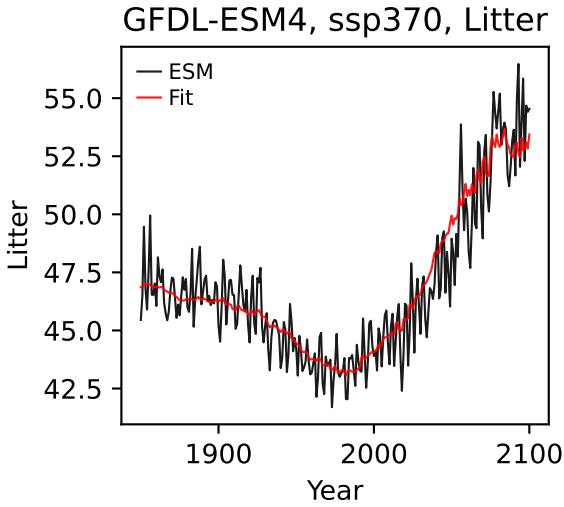

GFDL-ESM4, ssp370, GPP, ln(MSE/SIGMA)
169, -1.4884, 248.5142, 2.2332, 0.1061, -1.0000, 0.9989, 0.9103, 0
GFDL-ESM4
gpp_t_e
gpp_t_l
22.50
22.05
21.60
21.15
20.70
20.25
19.80
19.35
18.90
18.45

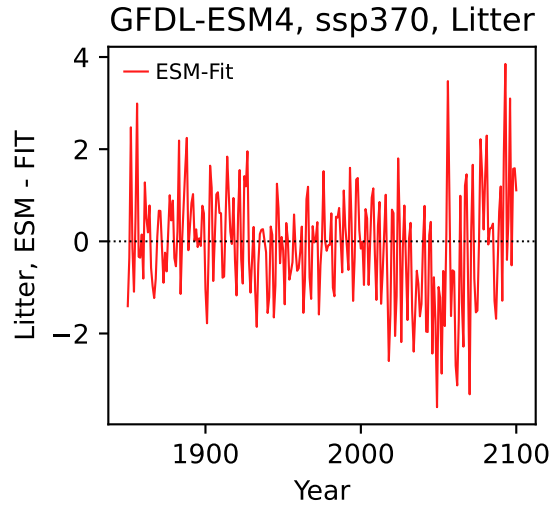

GFDL-ESM4, ssp370, GPP, ln(MSE/SIGMA)
169, -1.4884, 248.5142, 2.2332, 0.1061, -1.0000, 0.9989, 0.9103, 0
gpp_c_half
gpp_c_l
GFDL-ESM4
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
20.48
20.32
20.16
20.00
19.84
19.68
19.52
19.36
19.20

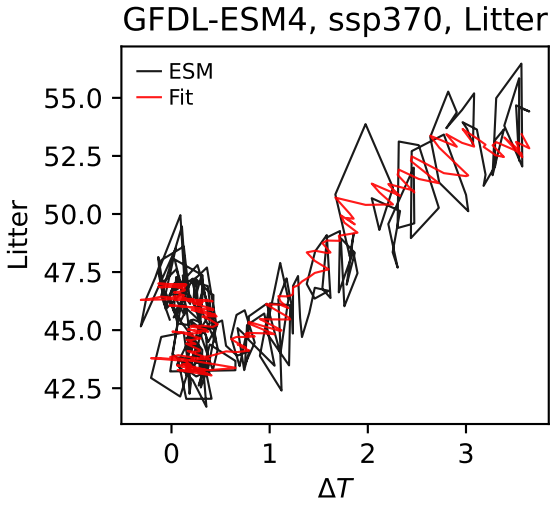

GFDL-ESM4, ssp370, GPP, ln(MSE/SIGMA)
169, -1.4884, 248.5142, 2.2332, 0.1061, -1.0000, 0.9989, 0.9103, 0
gpp_hyst
gpp_c_e
GFDL-ESM4
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.20
21.75
21.30
20.85
20.40
19.95
19.50
19.05
18.60

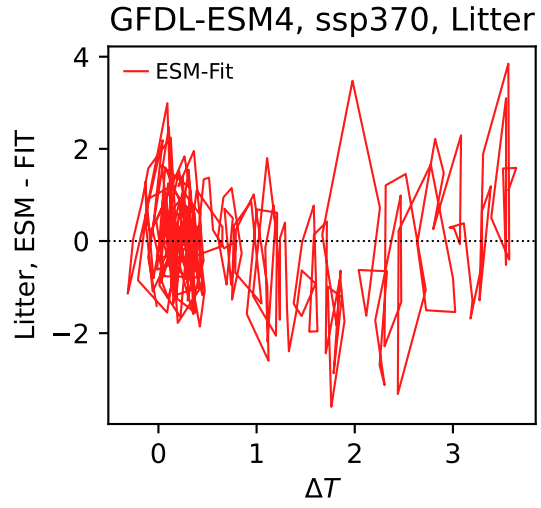

GFDL-ESM4, ssp370, GPP, ln(MSE/SIGMA)
169, -1.4884, 248.5142, 2.2332, 0.1061, -1.0000, 0.9989, 0.9103, 0
GFDL-ESM4
gpp_c_tan2
gpp_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
20.038
20.020
20.002
19.984
19.966
19.948
19.930
19.912
19.894
19.876

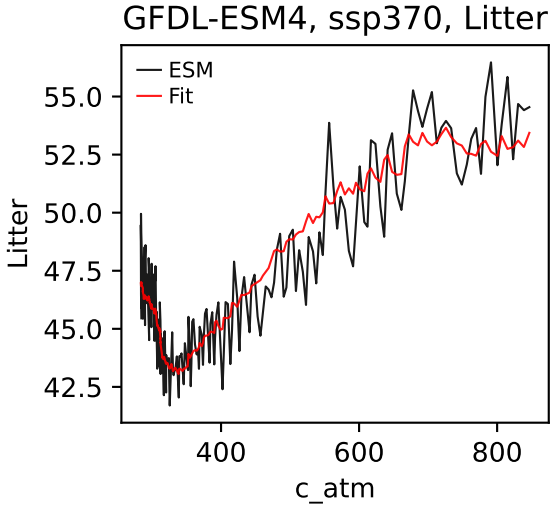

GFDL-ESM4, ssp370, GPP, ln(MSE/SIGMA)
169, -1.4884, 248.5142, 2.2332, 0.1061, -1.0000, 0.9989, 0.9103, 0
GFDL-ESM4
gpp_slow
gpp_fast
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.90
0.92
0.94
0.96
0.98
1.00
20.00
19.88
19.76
19.64
19.52
19.40
19.28
19.16
19.04

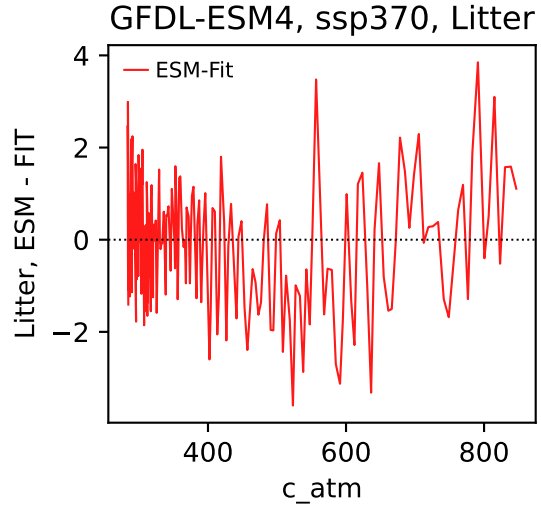

GFDL-ESM4, ssp370, Litter
ESM
Fit
Litter
Year

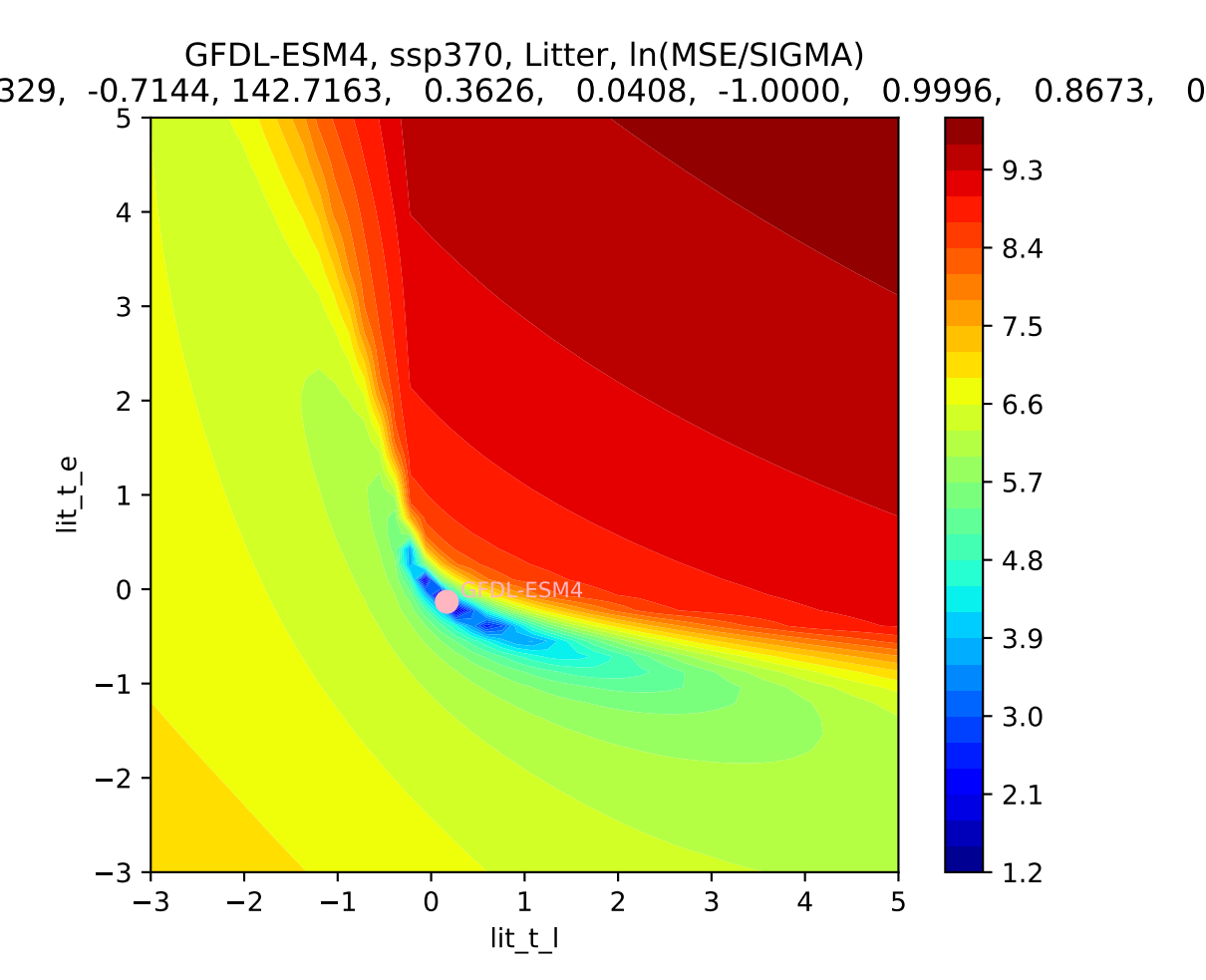

GFDL-ESM4, ssp370, Litter
ESM-Fit
Litter, ESM - FIT
Year

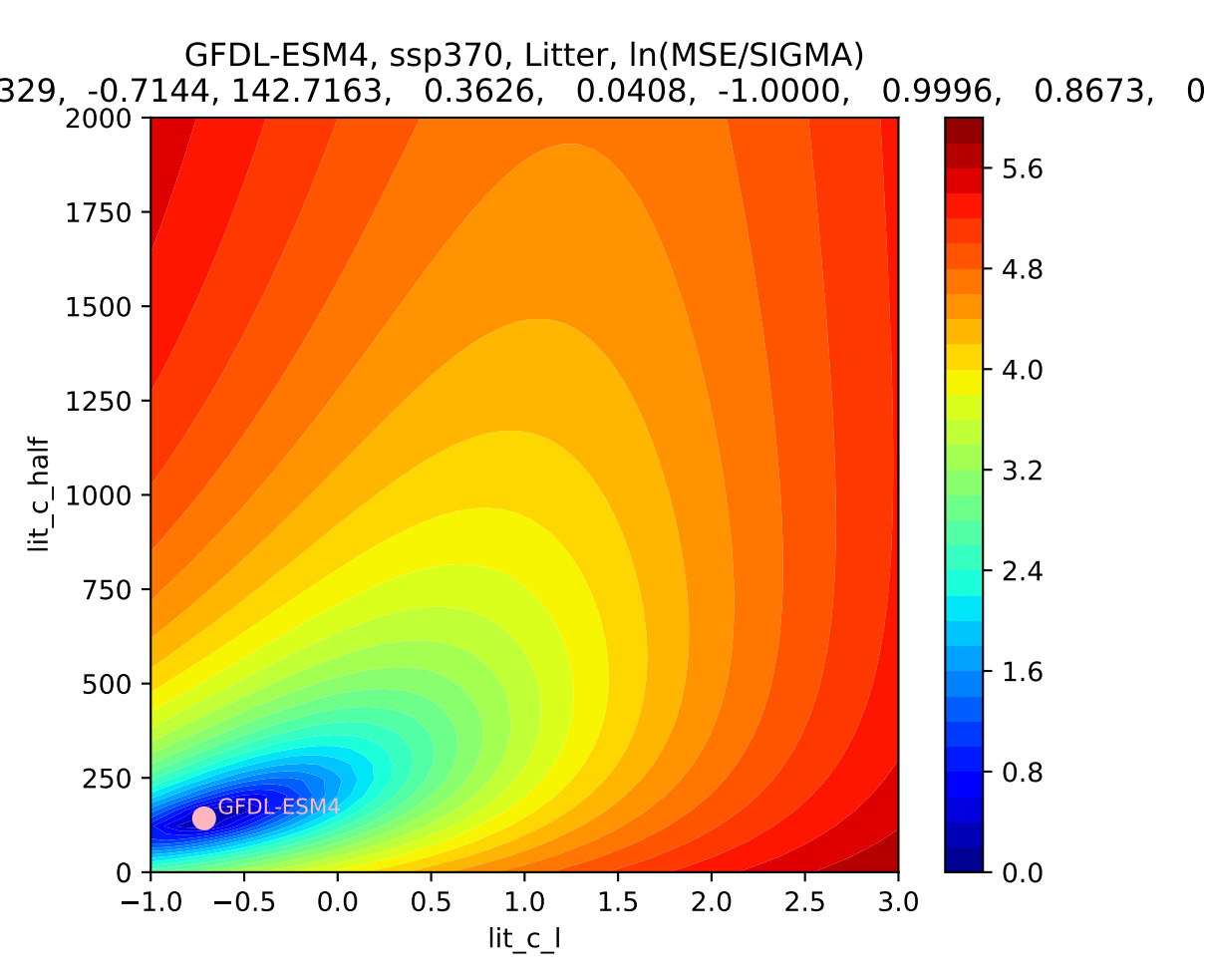

GFDL-ESM4, ssp370, Litter
ESM
Fit
Litter
ΔT

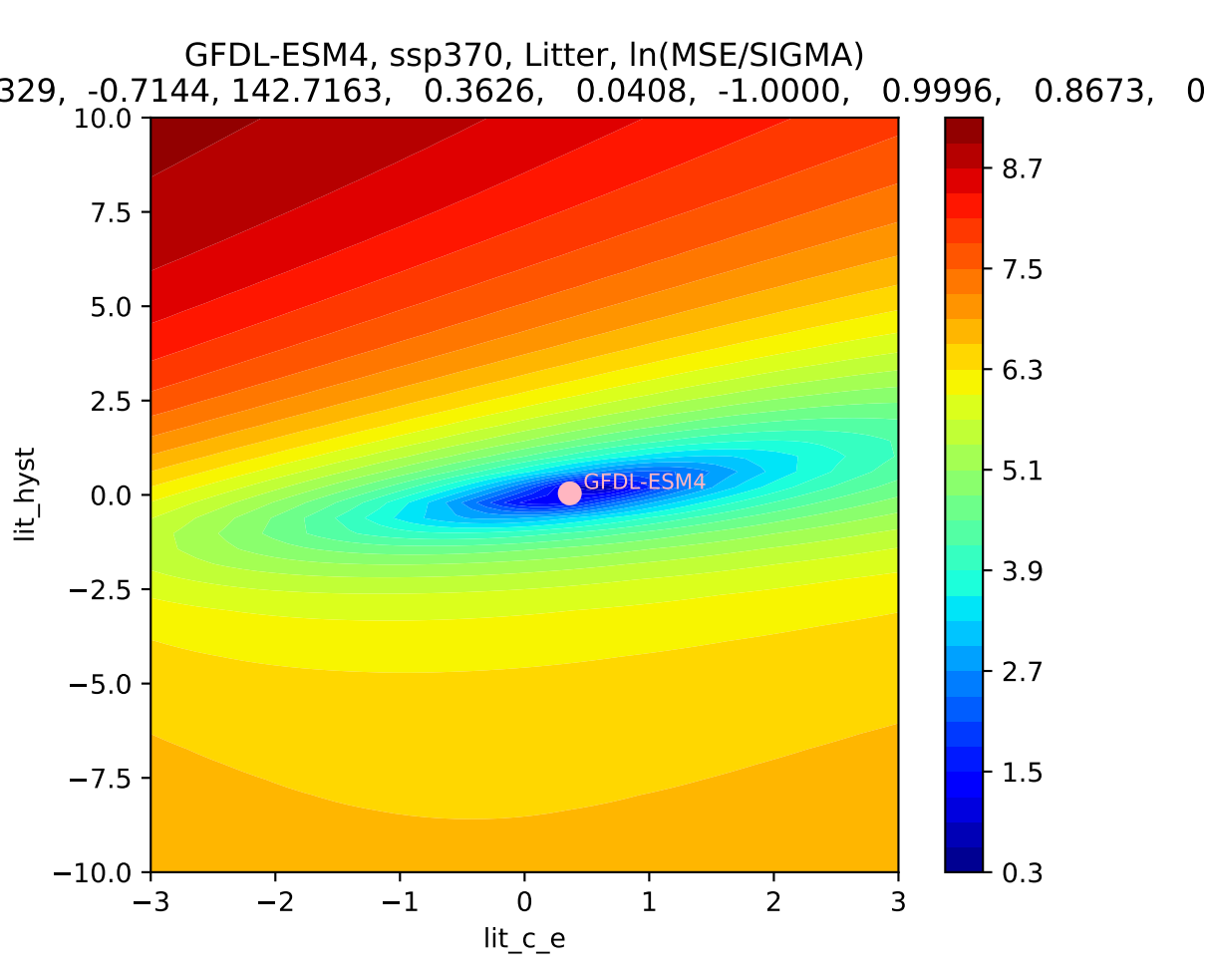

GFDL-ESM4, ssp370, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

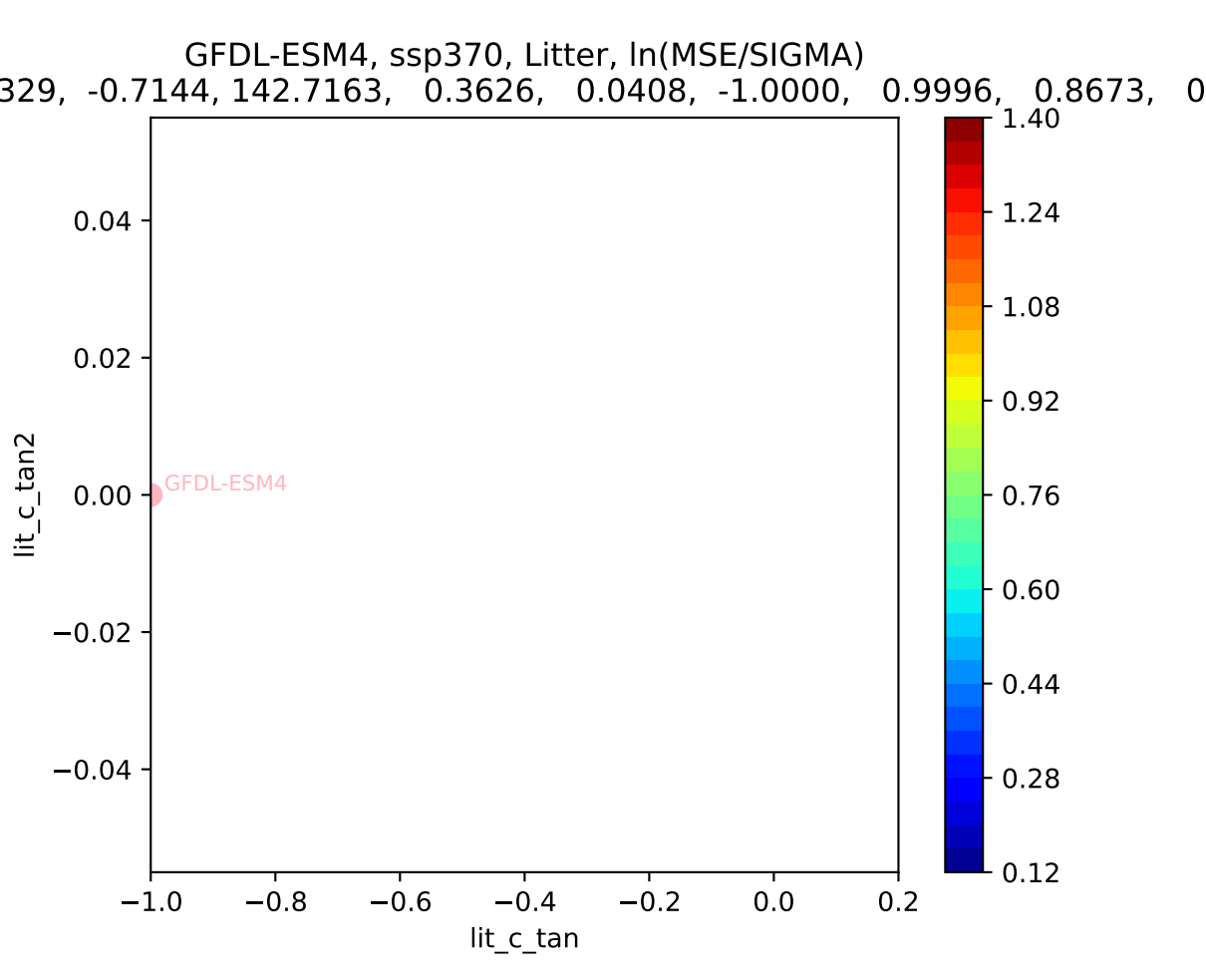

GFDL-ESM4, ssp370, Litter
ESM
Fit
Litter
c_atm

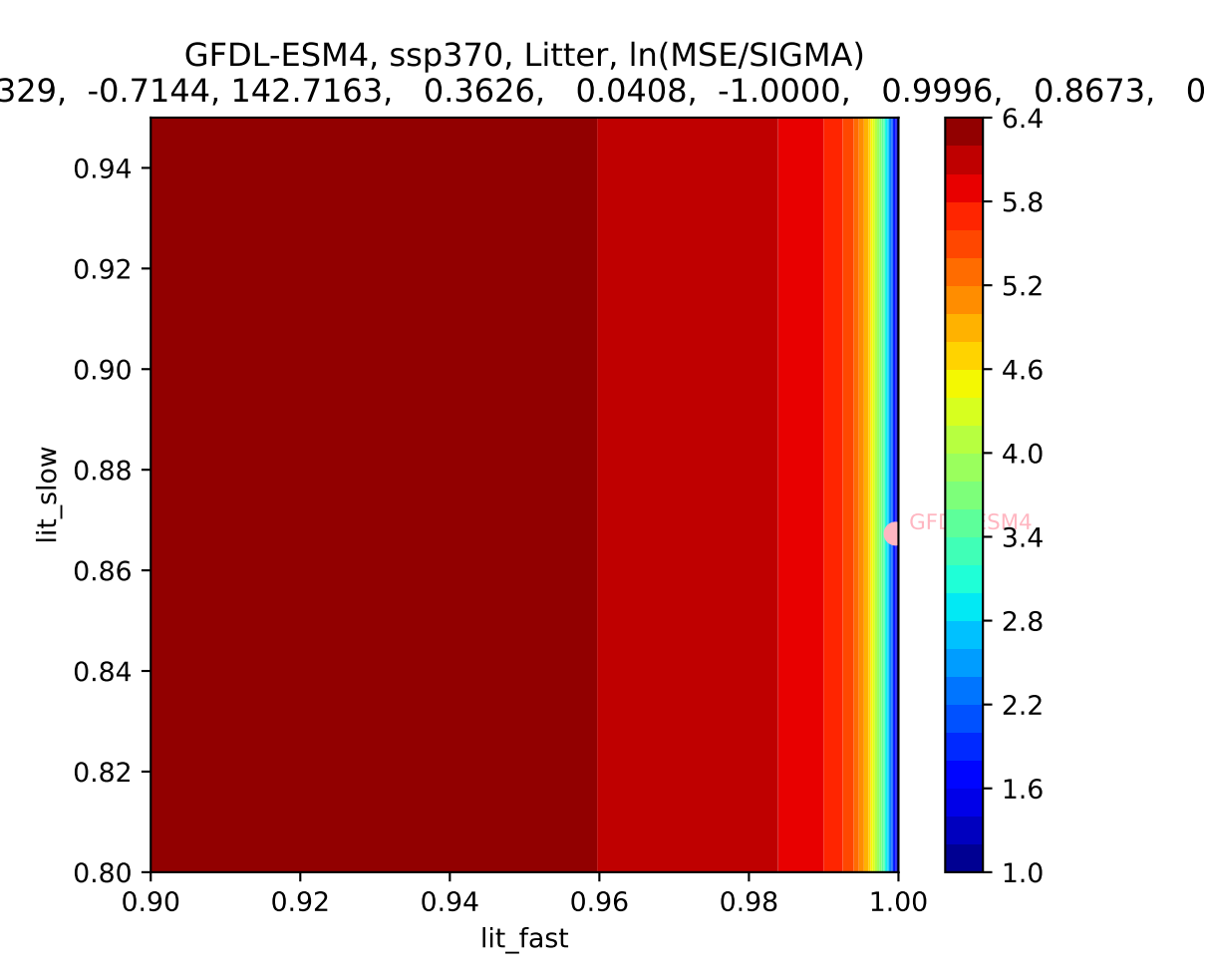

GFDL-ESM4, ssp370, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

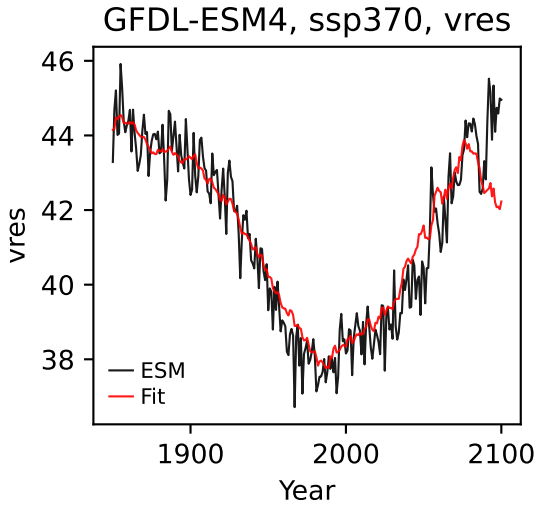

GFDL-ESM4, ssp370, Litter, ln(MSE/SIGMA)
329, -0.7144, 142.7163, 0.3626, 0.0408, -1.0000, 0.9996, 0.8673, 0
GFDL-ESM4
lit_t_e
lit_t_l
9.3
8.4
7.5
6.6
5.7
4.8
3.9
3.0
2.1
1.2

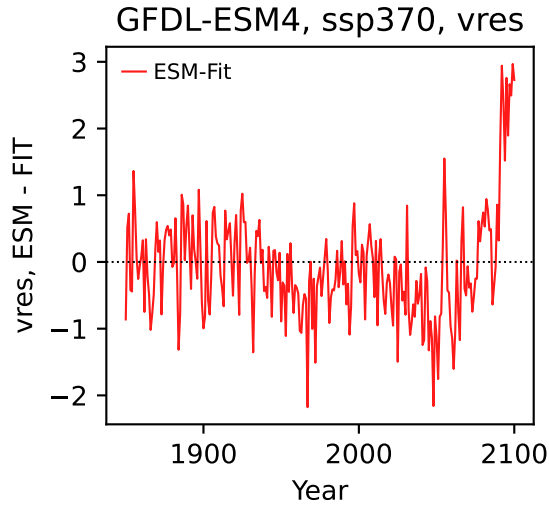

GFDL-ESM4, ssp370, Litter, ln(MSE/SIGMA)
329, -0.7144, 142.7163, 0.3626, 0.0408, -1.0000, 0.9996, 0.8673, 0
lit_c_half
lit_c_l
GFDL-ESM4
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
5.6
4.8
4.0
3.2
2.4
1.6
0.8
0.0

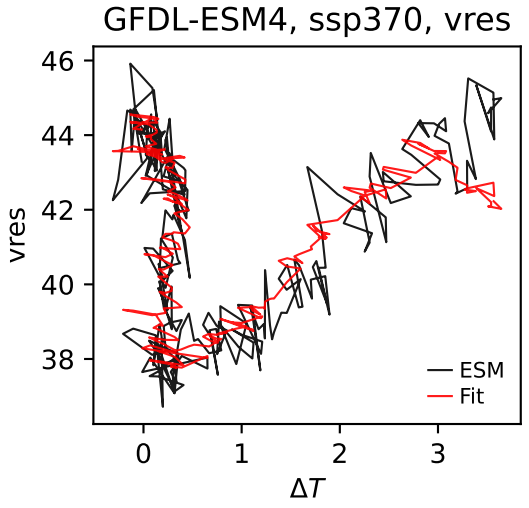

GFDL-ESM4, ssp370, Litter, ln(MSE/SIGMA)
329, -0.7144, 142.7163, 0.3626, 0.0408, -1.0000, 0.9996, 0.8673, 0
GFDL-ESM4
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
8.7
7.5
6.3
5.1
3.9
2.7
1.5
0.3

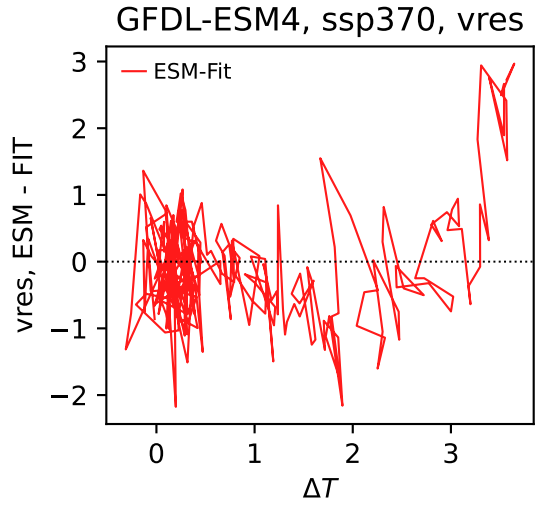

GFDL-ESM4, ssp370, Litter, ln(MSE/SIGMA)
329, -0.7144, 142.7163, 0.3626, 0.0408, -1.0000, 0.9996, 0.8673, 0
GFDL-ESM4
lit_c_tan2
lit_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
1.40
1.24
1.08
0.92
0.76
0.60
0.44
0.28
0.12

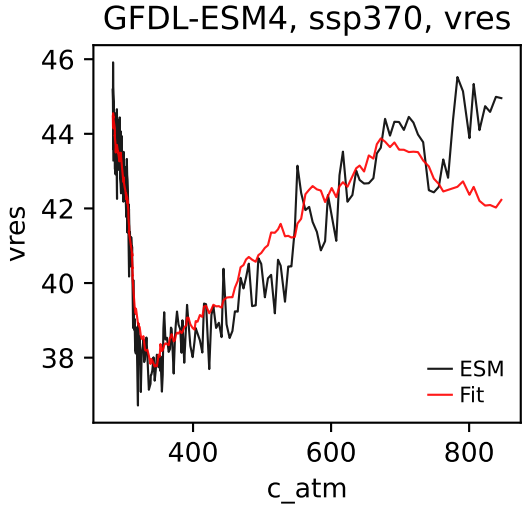

GFDL-ESM4, ssp370, Litter, ln(MSE/SIGMA)
329, -0.7144, 142.7163, 0.3626, 0.0408, -1.0000, 0.9996, 0.8673, 0
lit_slow
lit_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
6.4
5.8
5.2
4.6
4.0
3.4
2.8
2.2
1.6
1.0

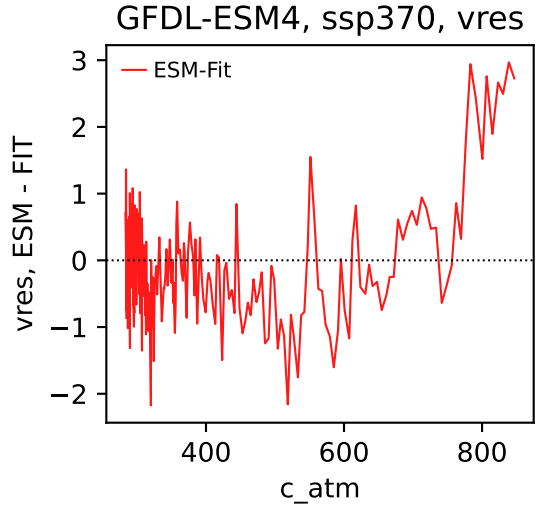

GFDL-ESM4, ssp370, vres
vres
Year
ESM
Fit

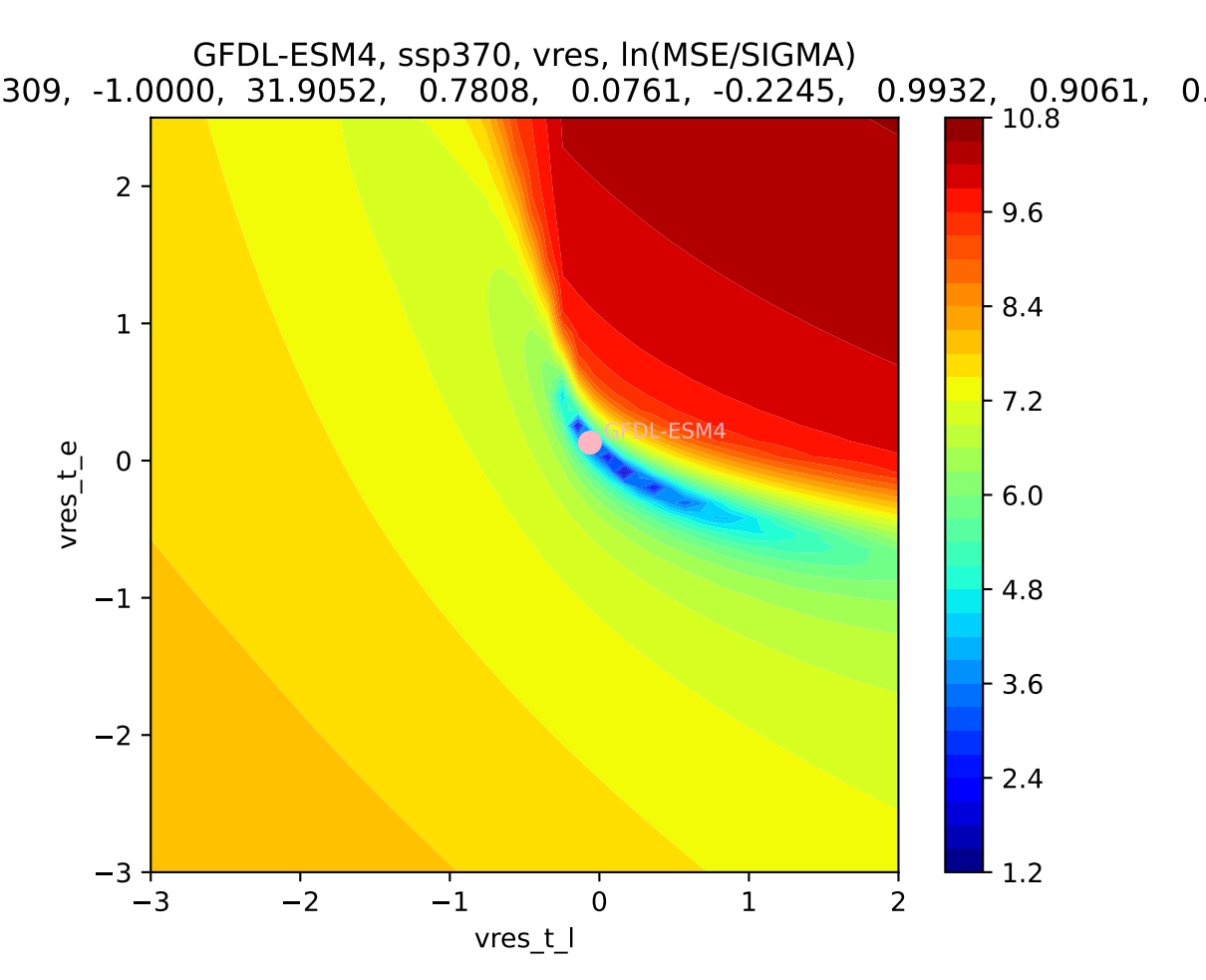

GFDL-ESM4, ssp370, vres
vres, ESM - FIT
Year
ESM-Fit

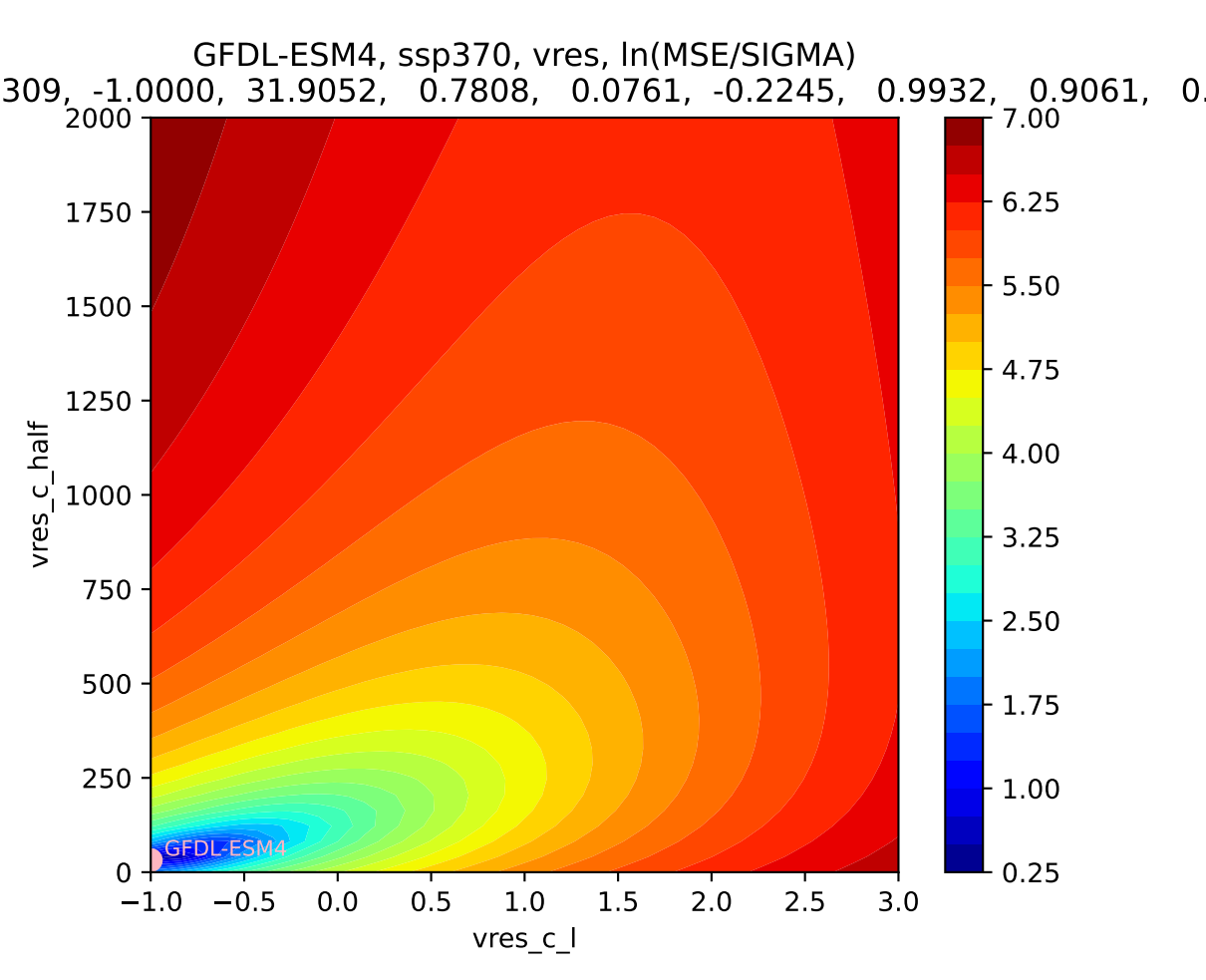

GFDL-ESM4, ssp370, vres
vres
ΔT
ESM
Fit

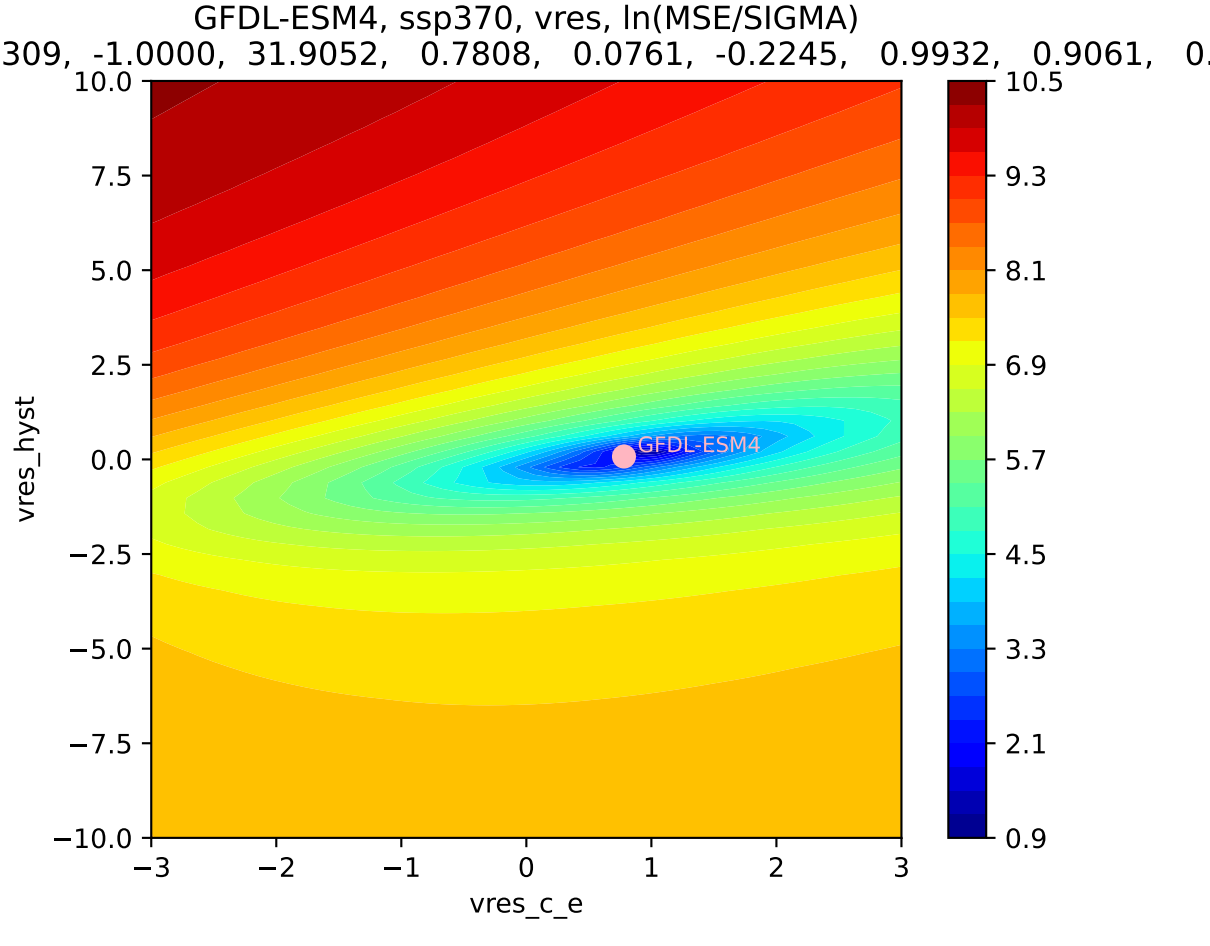

GFDL-ESM4, ssp370, vres
vres, ESM - FIT
ΔT
ESM-Fit

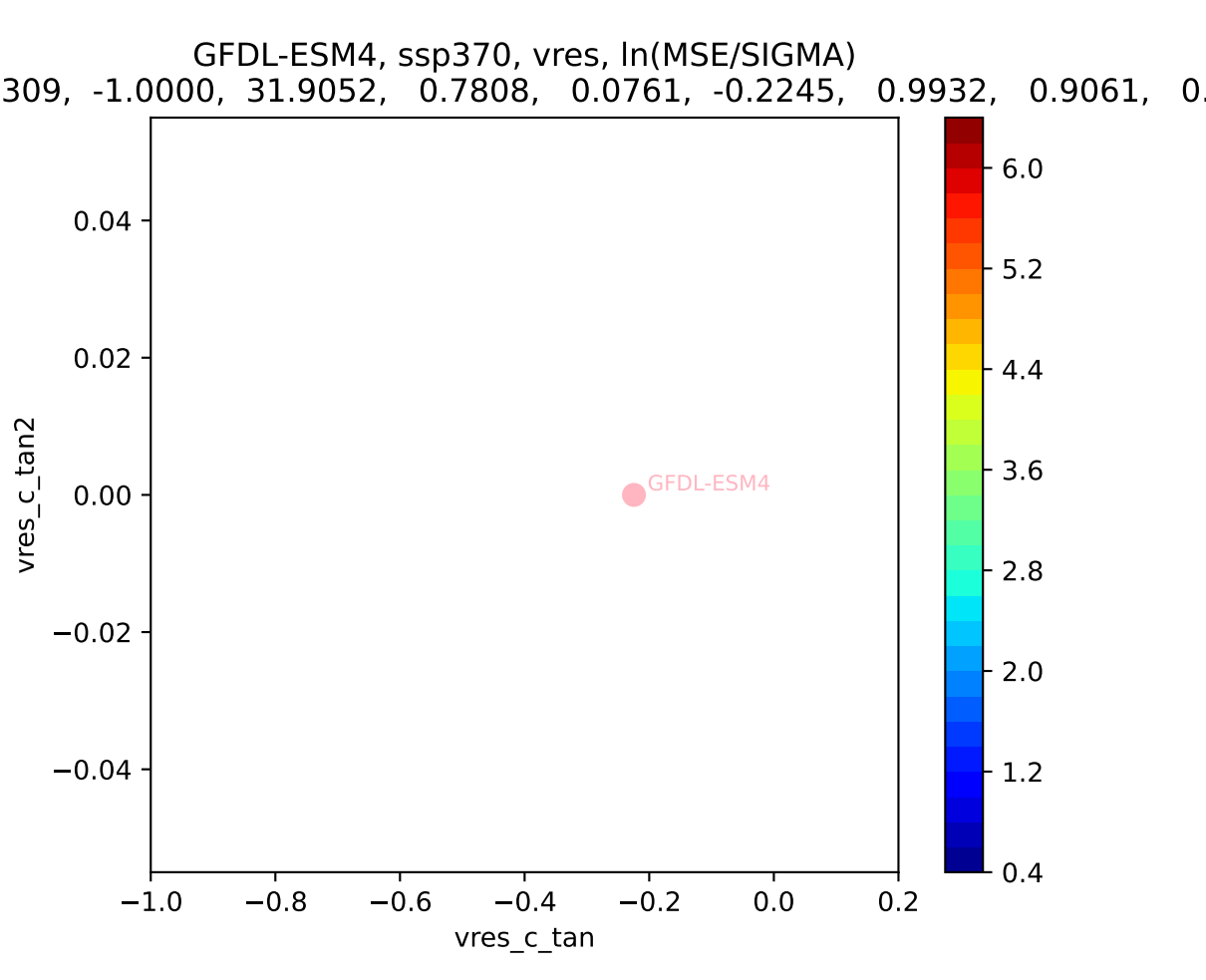

GFDL-ESM4, ssp370, vres
vres
c_atm
ESM
Fit

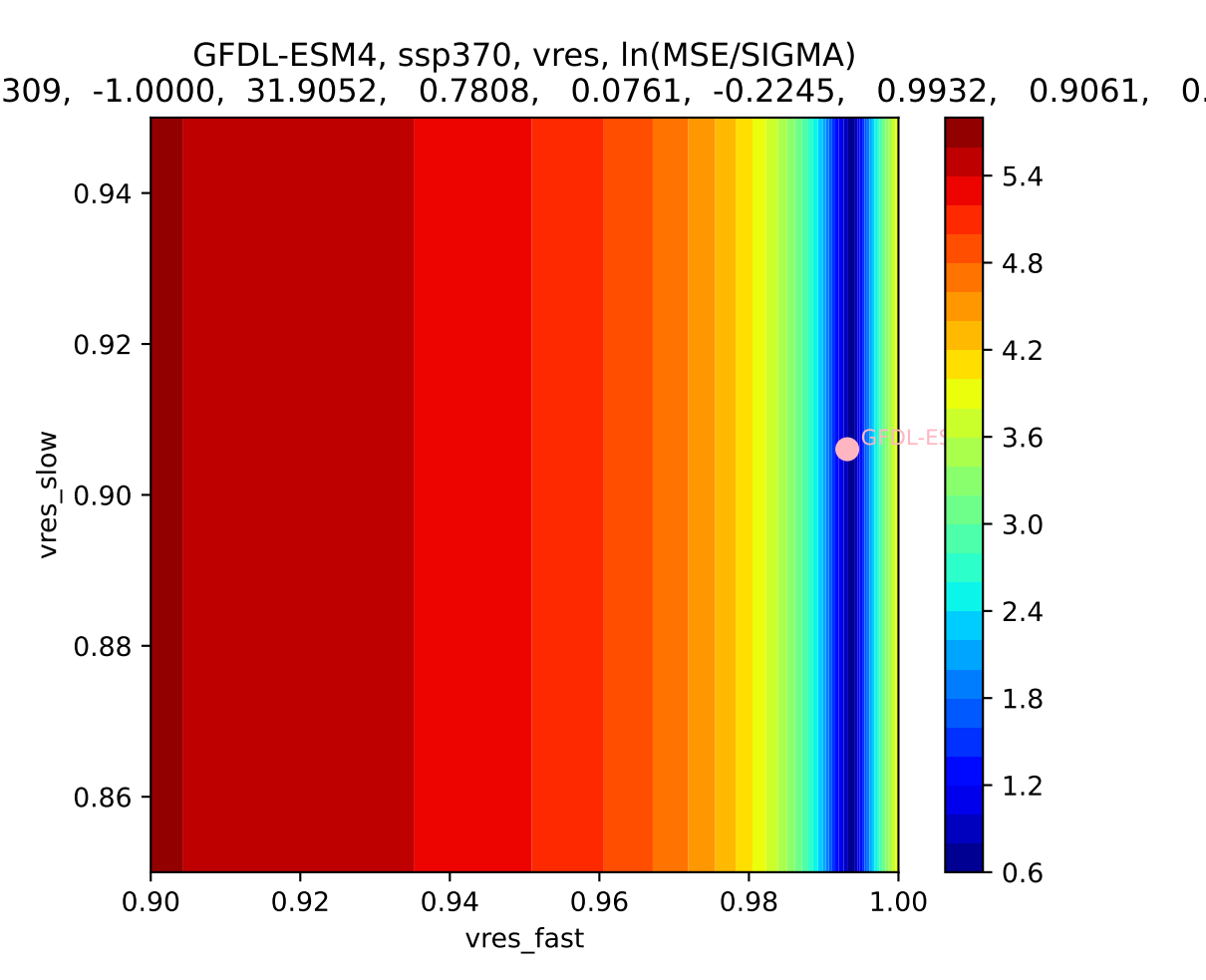

GFDL-ESM4, ssp370, vres
vres, ESM - FIT
c_atm
ESM-Fit

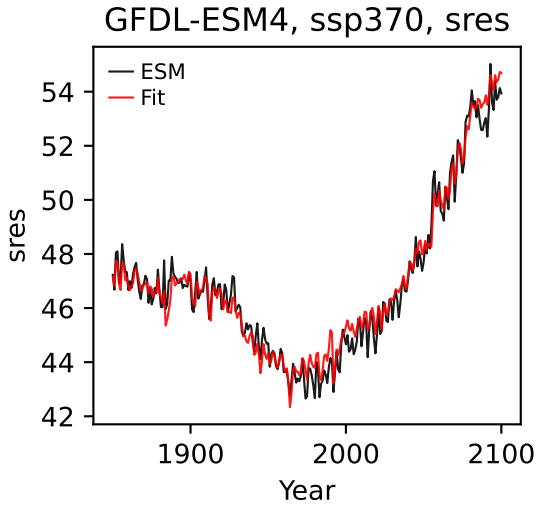

GFDL-ESM4, ssp370, vres, ln(MSE/SIGMA)
309, -1.0000, 31.9052, 0.7808, 0.0761, -0.2245, 0.9932, 0.9061, 0.
GFDL-ESM4
vres_t_e
vres_t_l
10.8
9.6
8.4
7.2
6.0
4.8
3.6
2.4
1.2

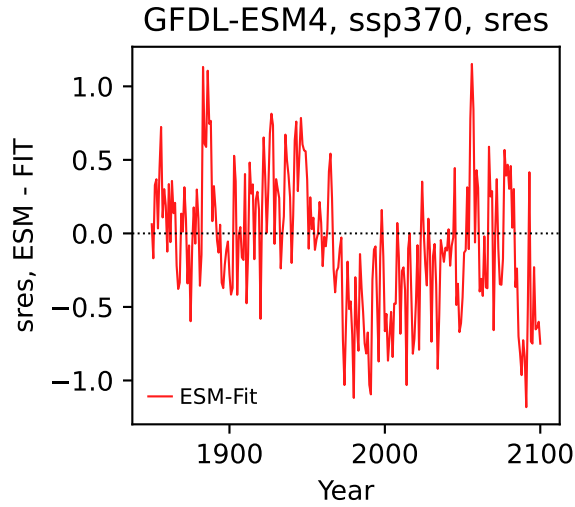

GFDL-ESM4, ssp370, vres, ln(MSE/SIGMA)
309, -1.0000, 31.9052, 0.7808, 0.0761, -0.2245, 0.9932, 0.9061, 0.
vres_c_half
vres_c_l
GFDL-ESM4
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
7.00
6.25
5.50
4.75
4.00
3.25
2.50
1.75
1.00
0.25

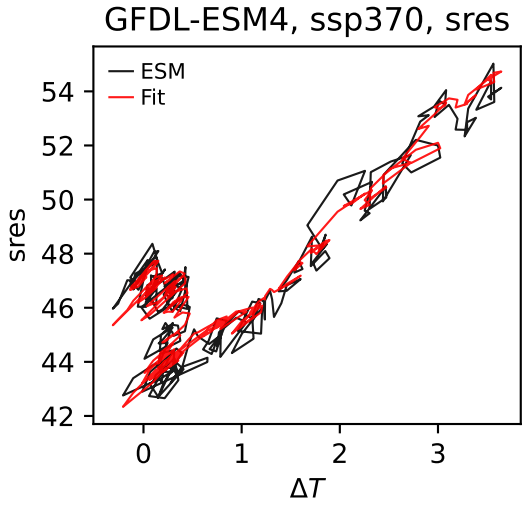

GFDL-ESM4, ssp370, vres, ln(MSE/SIGMA)
309, -1.0000, 31.9052, 0.7808, 0.0761, -0.2245, 0.9932, 0.9061, 0.
GFDL-ESM4
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.5
9.3
8.1
6.9
5.7
4.5
3.3
2.1
0.9

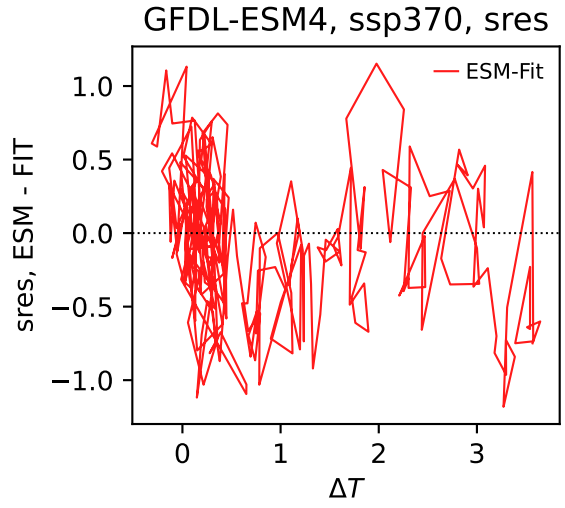

GFDL-ESM4, ssp370, vres, ln(MSE/SIGMA)
309, -1.0000, 31.9052, 0.7808, 0.0761, -0.2245, 0.9932, 0.9061, 0.
GFDL-ESM4
vres_c_tan2
vres_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
6.0
5.2
4.4
3.6
2.8
2.0
1.2
0.4

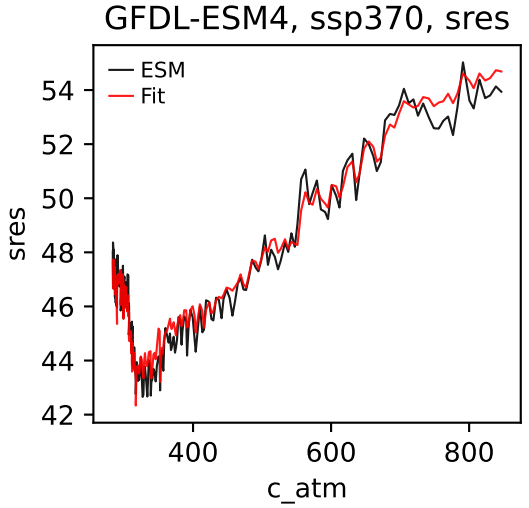

GFDL-ESM4, ssp370, vres, ln(MSE/SIGMA)
309, -1.0000, 31.9052, 0.7808, 0.0761, -0.2245, 0.9932, 0.9061, 0.
0.94
0.92
0.90
0.88
0.86
vres_slow
0.90
0.92
0.94
0.96
0.98
1.00
vres_fast
5.4
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6

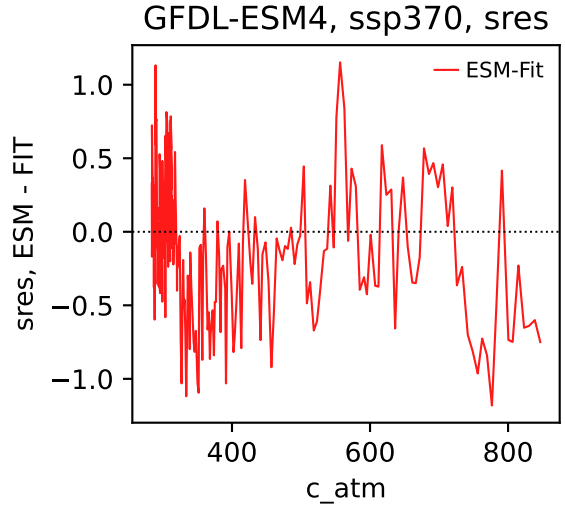

GFDL-ESM4, ssp370, sres
ESM
Fit
sres
Year

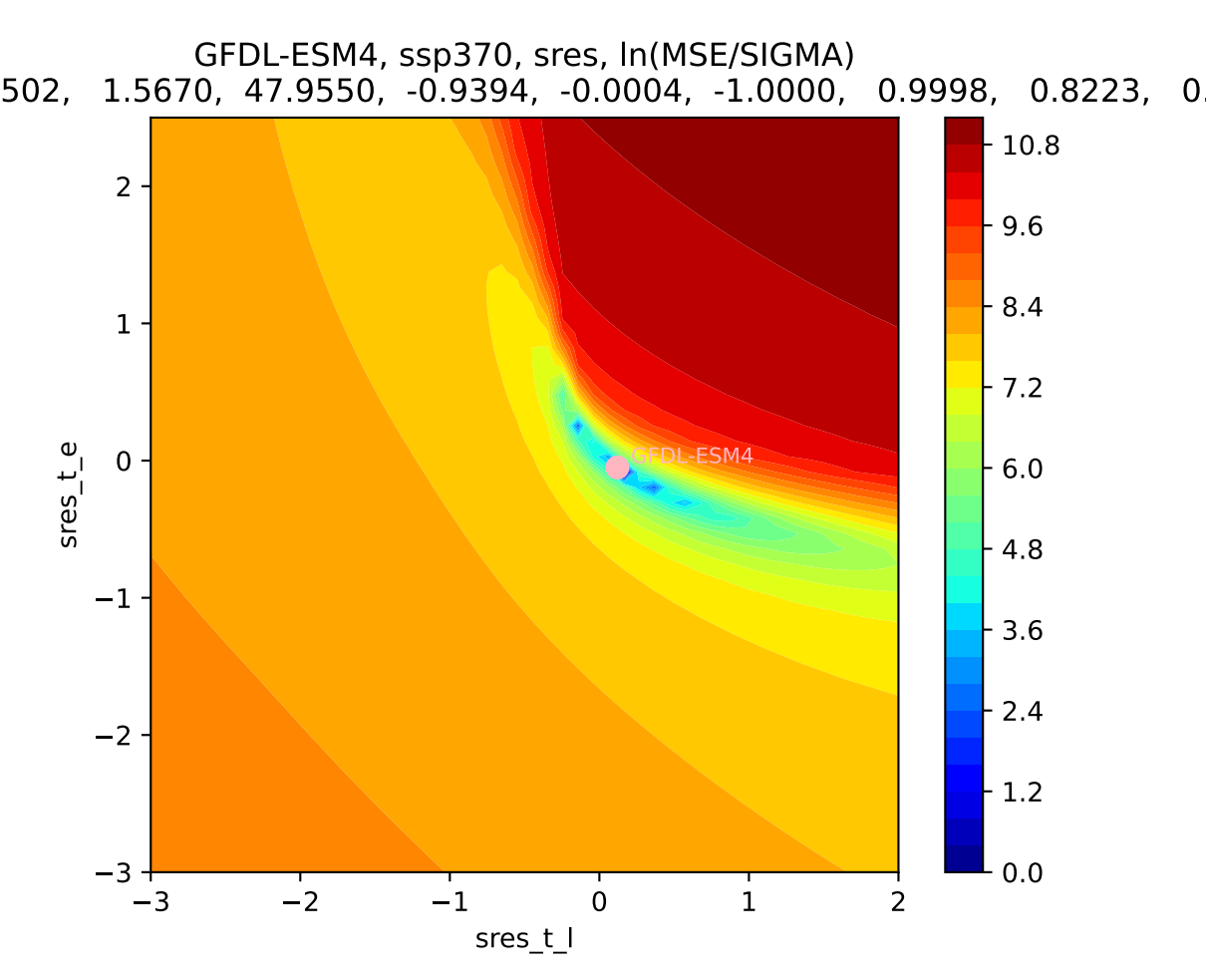

GFDL-ESM4, ssp370, sres
sres, ESM - FIT
ESM-Fit
Year

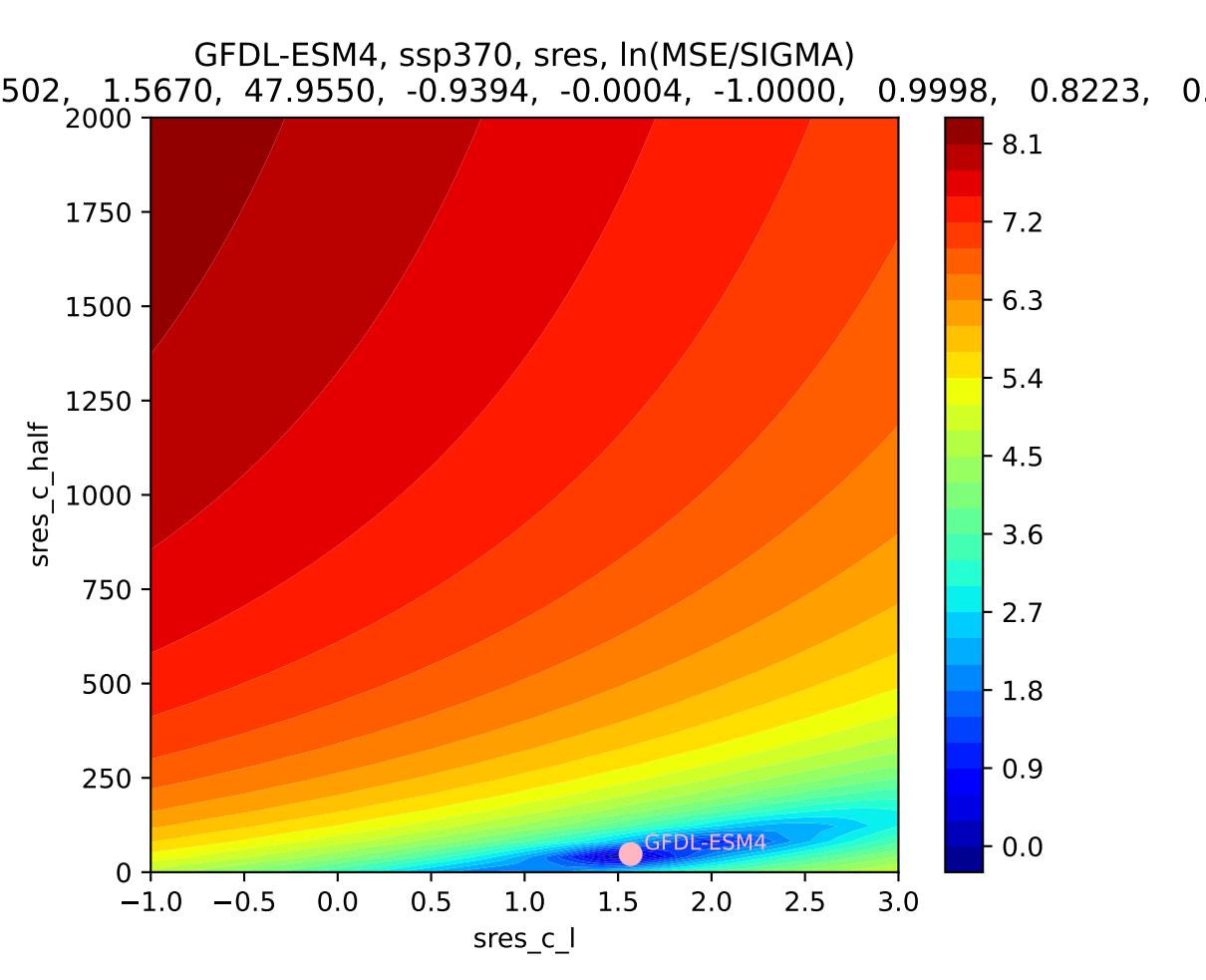

GFDL-ESM4, ssp370, sres
ESM
Fit
sres
ΔT

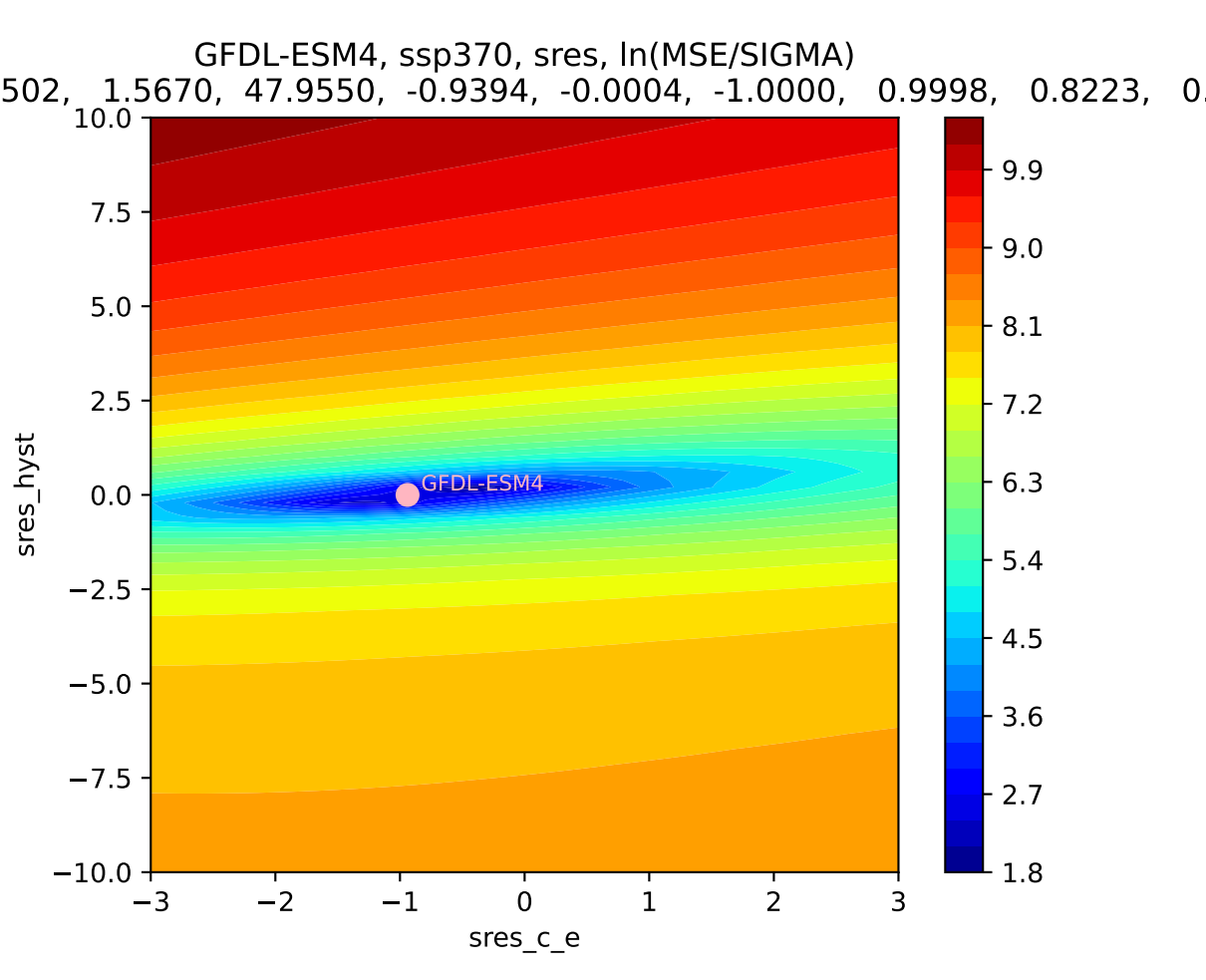

GFDL-ESM4, ssp370, sres
sres, ESM - FIT
ESM-Fit
ΔT

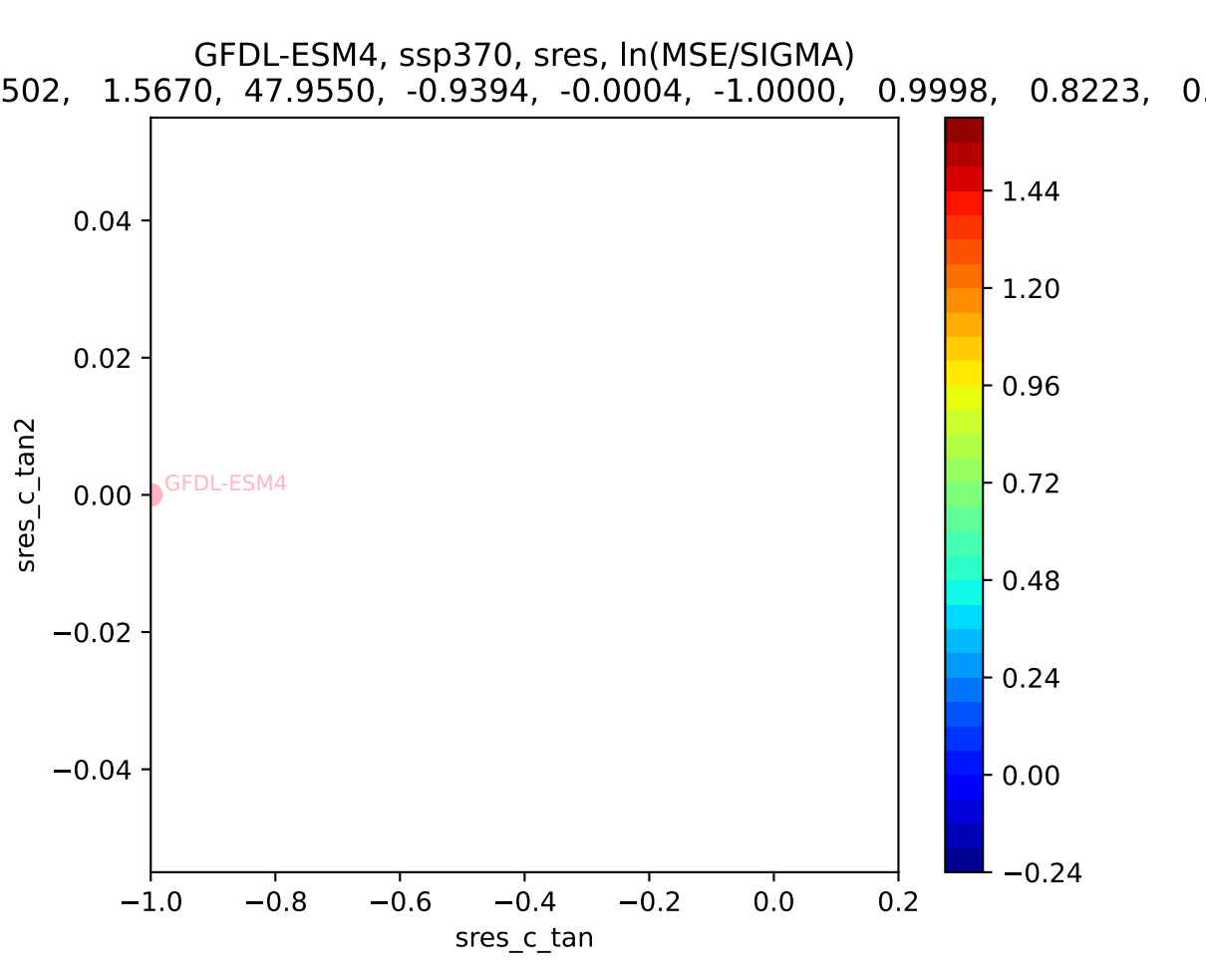

GFDL-ESM4, ssp370, sres
ESM
Fit
sres
c_atm

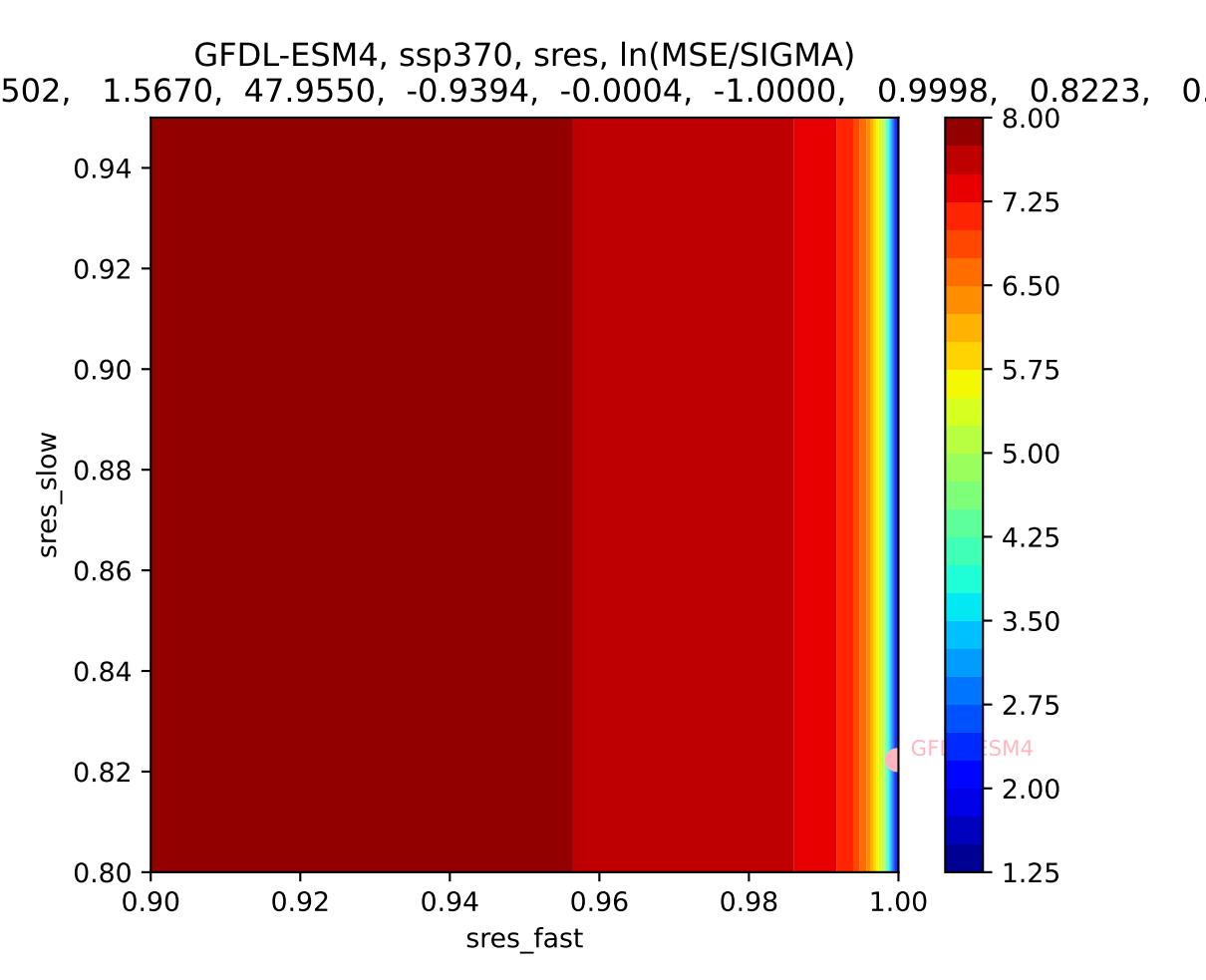

GFDL-ESM4, ssp370, sres
sres, ESM - FIT
ESM-Fit
c_atm

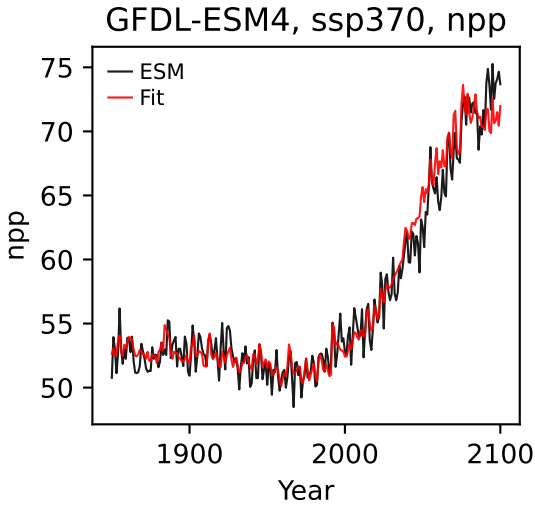

GFDL-ESM4, ssp370, sres, ln(MSE/SIGMA)
502, 1.5670, 47.9550, -0.9394, -0.0004, -1.0000, 0.9998, 0.8223, 0.
GFDL-ESM4
sres_t_e
sres_t_l
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
10.8
9.6
8.4
7.2
6.0
4.8
3.6
2.4
1.2
0.0

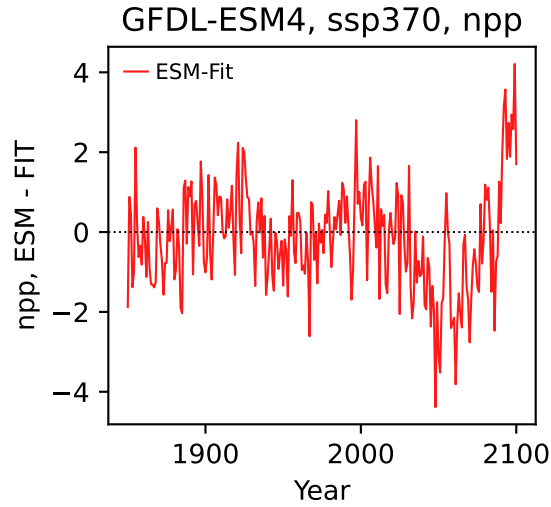

GFDL-ESM4, ssp370, sres, ln(MSE/SIGMA)
502, 1.5670, 47.9550, -0.9394, -0.0004, -1.0000, 0.9998, 0.8223, 0.
sres_c_half
sres_c_l
GFDL-ESM4
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
8.1
7.2
6.3
5.4
4.5
3.6
2.7
1.8
0.9
0.0

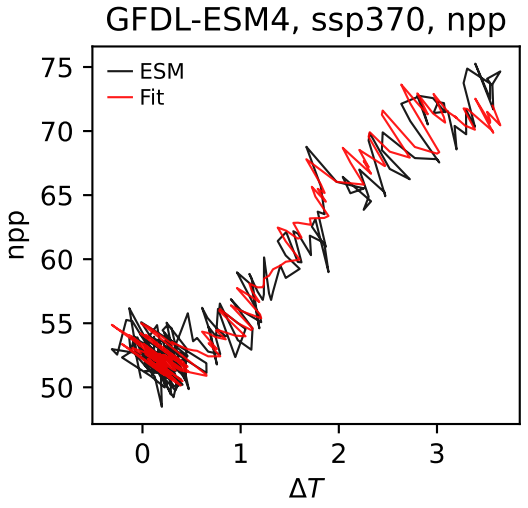

GFDL-ESM4, ssp370, sres, ln(MSE/SIGMA)
502, 1.5670, 47.9550, -0.9394, -0.0004, -1.0000, 0.9998, 0.8223, 0.
GFDL-ESM4
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
9.9
9.0
8.1
7.2
6.3
5.4
4.5
3.6
2.7
1.8

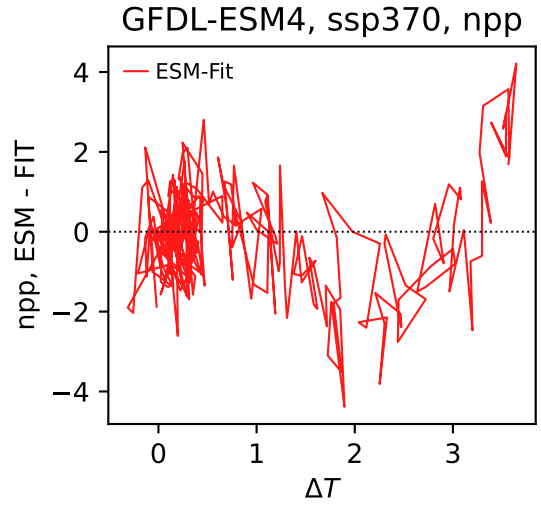

GFDL-ESM4, ssp370, sres, ln(MSE/SIGMA)
502, 1.5670, 47.9550, -0.9394, -0.0004, -1.0000, 0.9998, 0.8223, 0.
GFDL-ESM4
sres_c_tan2
sres_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
1.44
1.20
0.96
0.72
0.48
0.24
0.00
−0.24

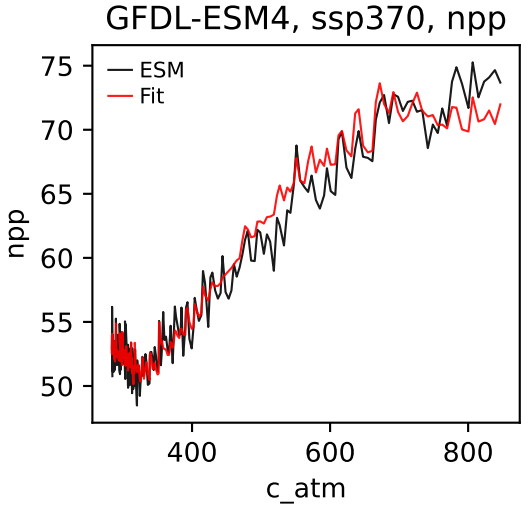

GFDL-ESM4, ssp370, sres, ln(MSE/SIGMA)
502, 1.5670, 47.9550, -0.9394, -0.0004, -1.0000, 0.9998, 0.8223, 0.
sres_slow
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.90
0.92
0.94
0.96
0.98
1.00
sres_fast
8.00
7.25
6.50
5.75
5.00
4.25
3.50
2.75
2.00
1.25

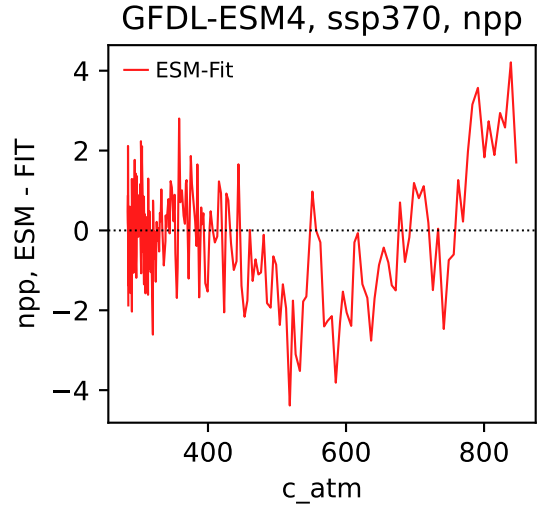

GFDL-ESM4, ssp370, npp
ESM
Fit
npp
Year

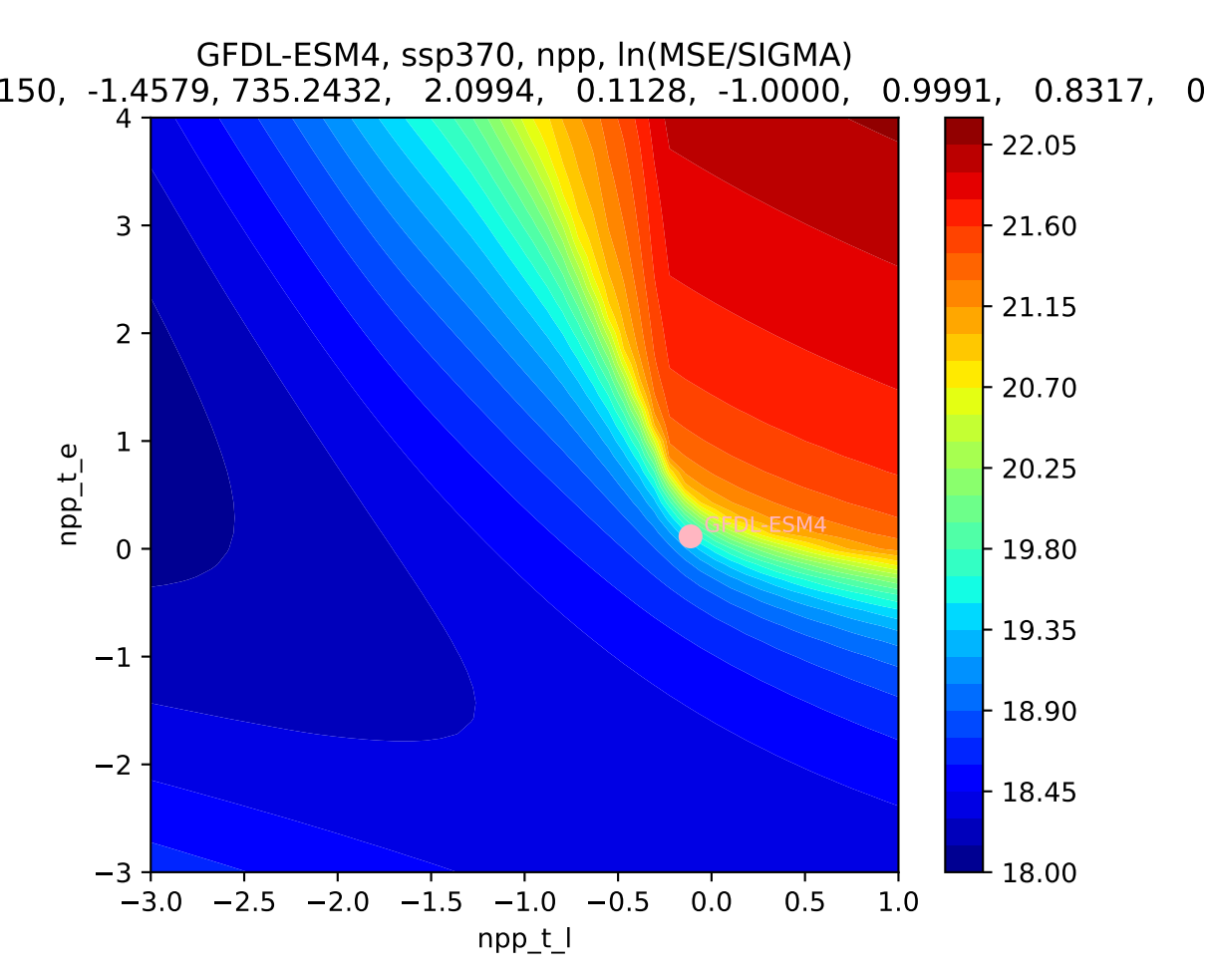

GFDL-ESM4, ssp370, npp
ESM-Fit
npp, ESM - FIT
Year

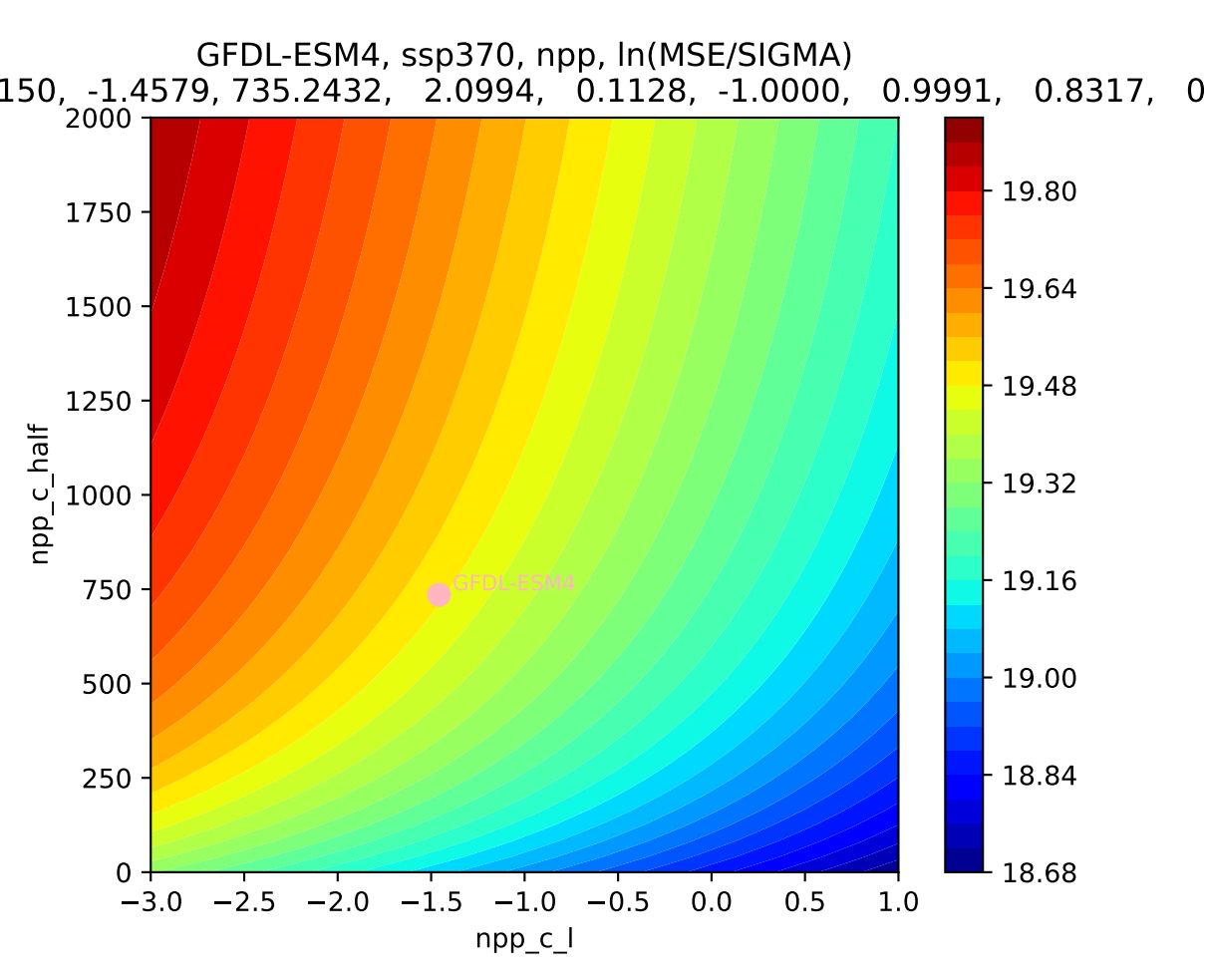

GFDL-ESM4, ssp370, npp
ESM
Fit
npp
ΔT

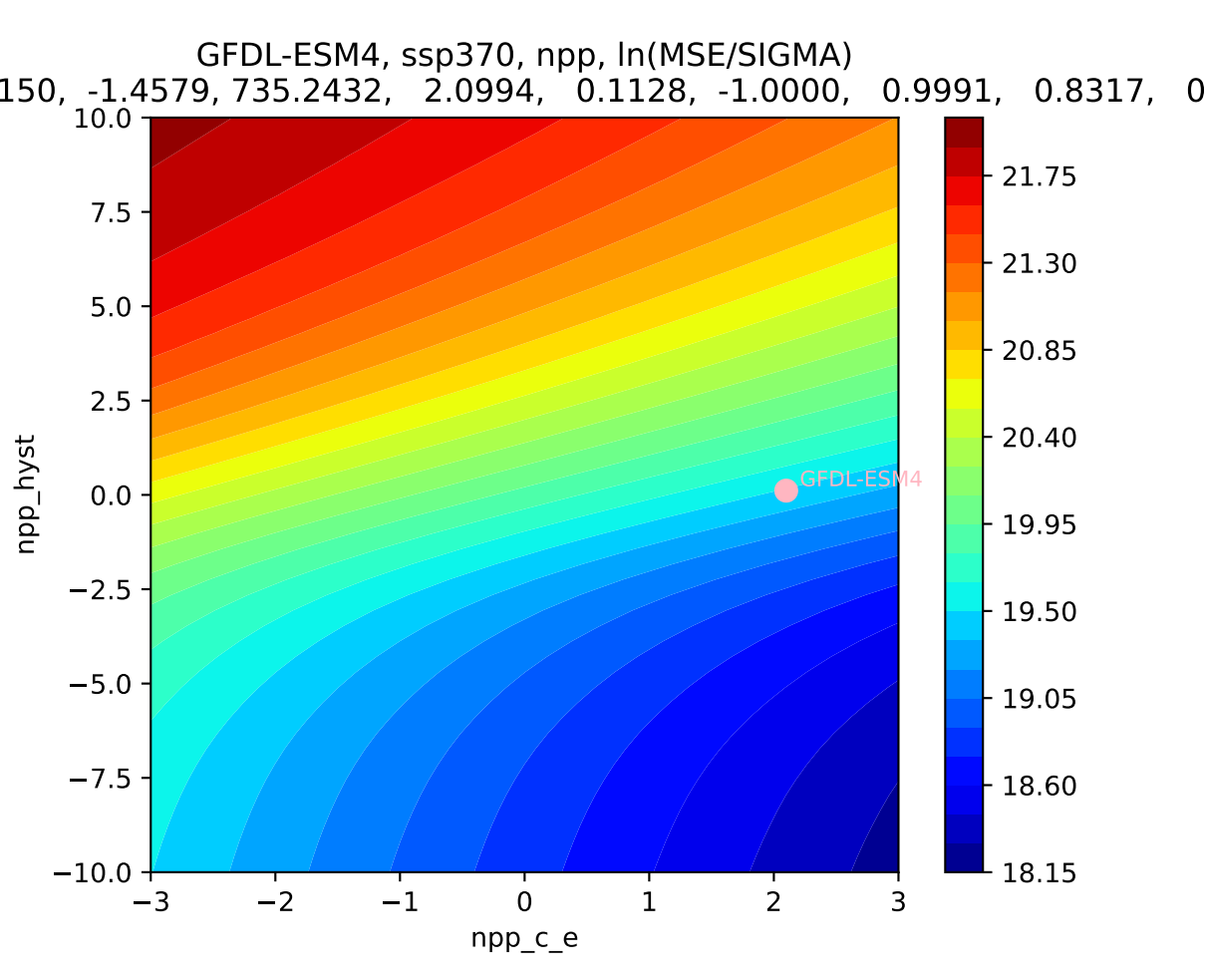

GFDL-ESM4, ssp370, npp
ESM-Fit
npp, ESM - FIT
ΔT

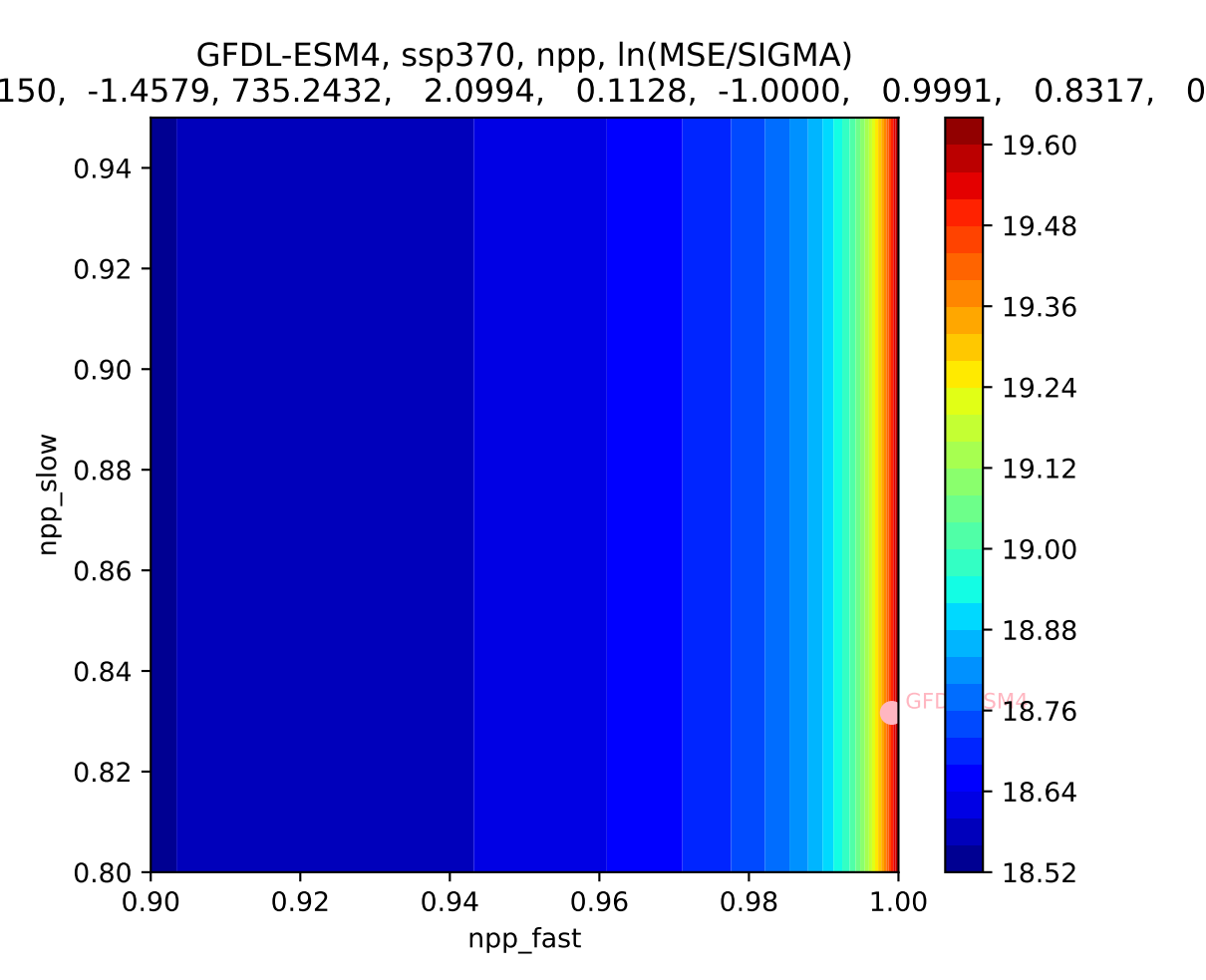

GFDL-ESM4, ssp370, npp
ESM
Fit
npp
c_atm

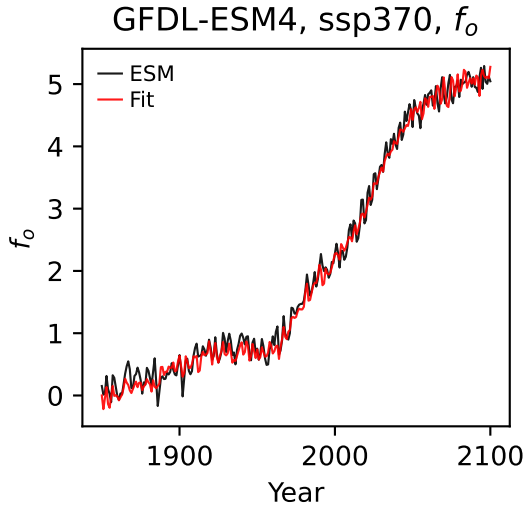

GFDL-ESM4, ssp370, npp
ESM-Fit
npp, ESM - FIT
c_atm

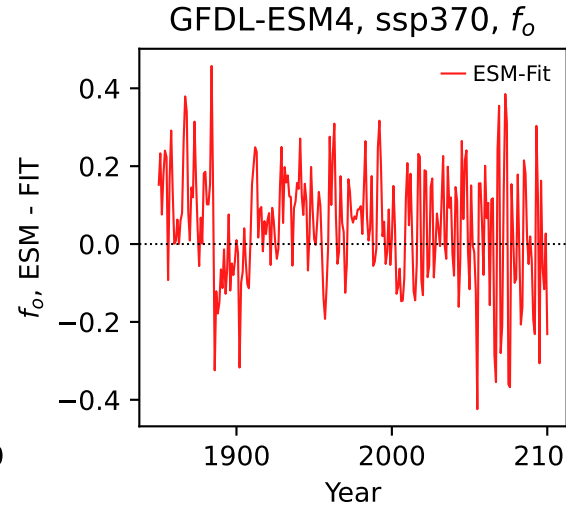

GFDL-ESM4, ssp370, npp, ln(MSE/SIGMA)
150, -1.4579, 735.2432, 2.0994, 0.1128, -1.0000, 0.9991, 0.8317, 0
GFDL-ESM4
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
22.05
21.60
21.15
20.70
20.25
19.80
19.35
18.90
18.45
18.00

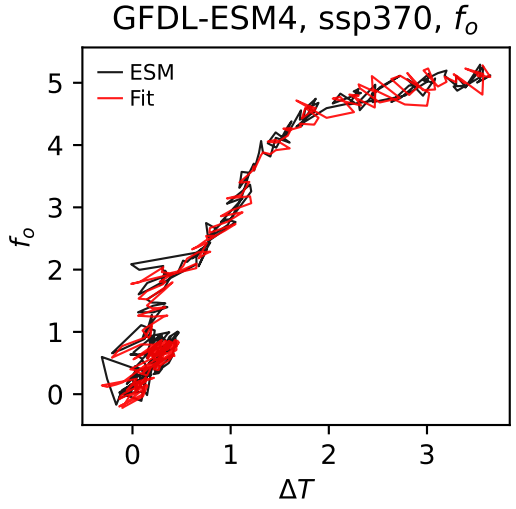

GFDL-ESM4, ssp370, npp, ln(MSE/SIGMA)
150, -1.4579, 735.2432, 2.0994, 0.1128, -1.0000, 0.9991, 0.8317, 0
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
GFDL-ESM4
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
npp_c_l
19.80
19.64
19.48
19.32
19.16
19.00
18.84
18.68

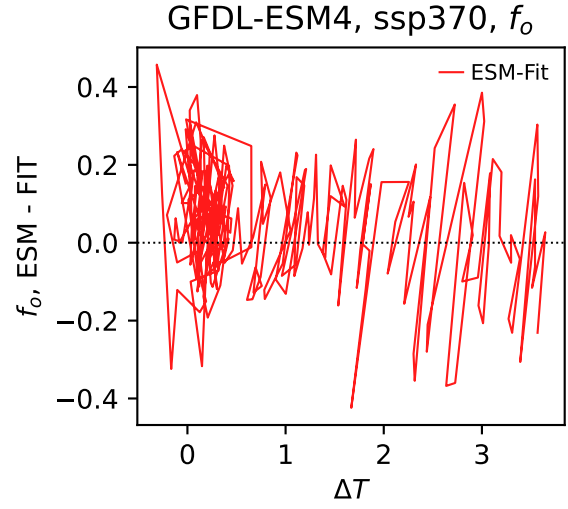

GFDL-ESM4, ssp370, npp, ln(MSE/SIGMA)
150, -1.4579, 735.2432, 2.0994, 0.1128, -1.0000, 0.9991, 0.8317, 0
GFDL-ESM4
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
21.75
21.30
20.85
20.40
19.95
19.50
19.05
18.60
18.15

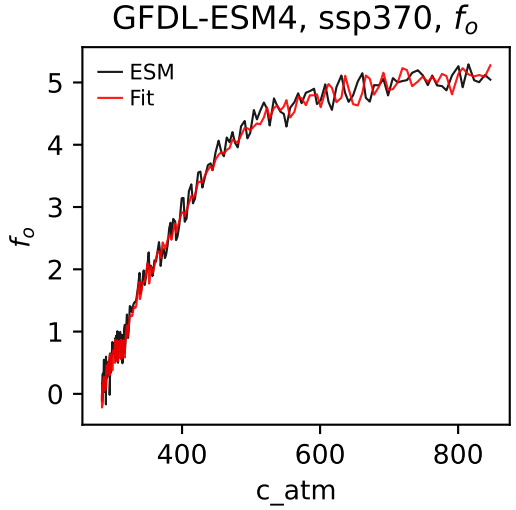

GFDL-ESM4, ssp370, npp, ln(MSE/SIGMA)
150, -1.4579, 735.2432, 2.0994, 0.1128, -1.0000, 0.9991, 0.8317, 0
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
npp_slow
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast
19.60
19.48
19.36
19.24
19.12
19.00
18.88
18.76
18.64
18.52

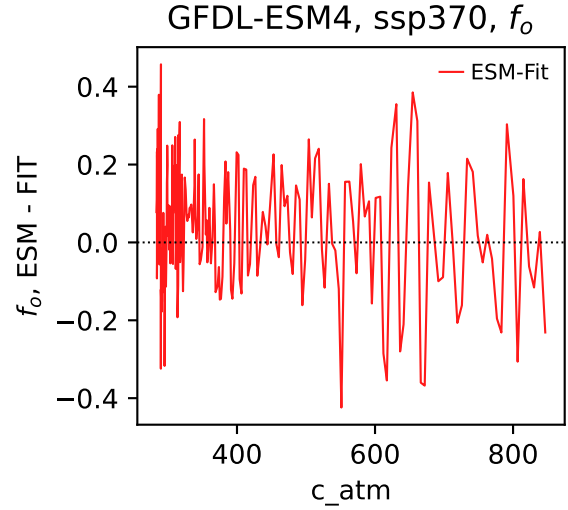

GFDL-ESM4, ssp370, f_o
ESM
Fit
f_o
Year

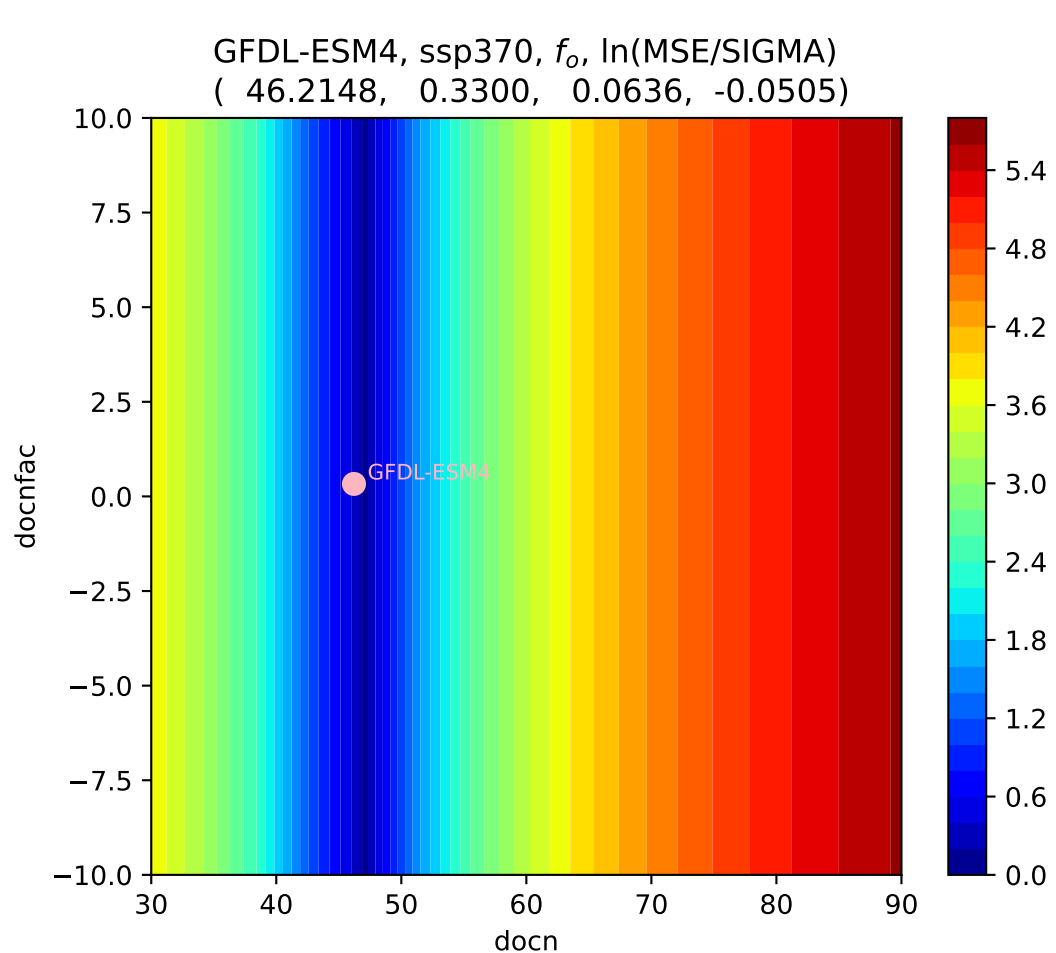

GFDL-ESM4, ssp370, f_o
ESM-Fit
f_o, ESM - FIT
Year

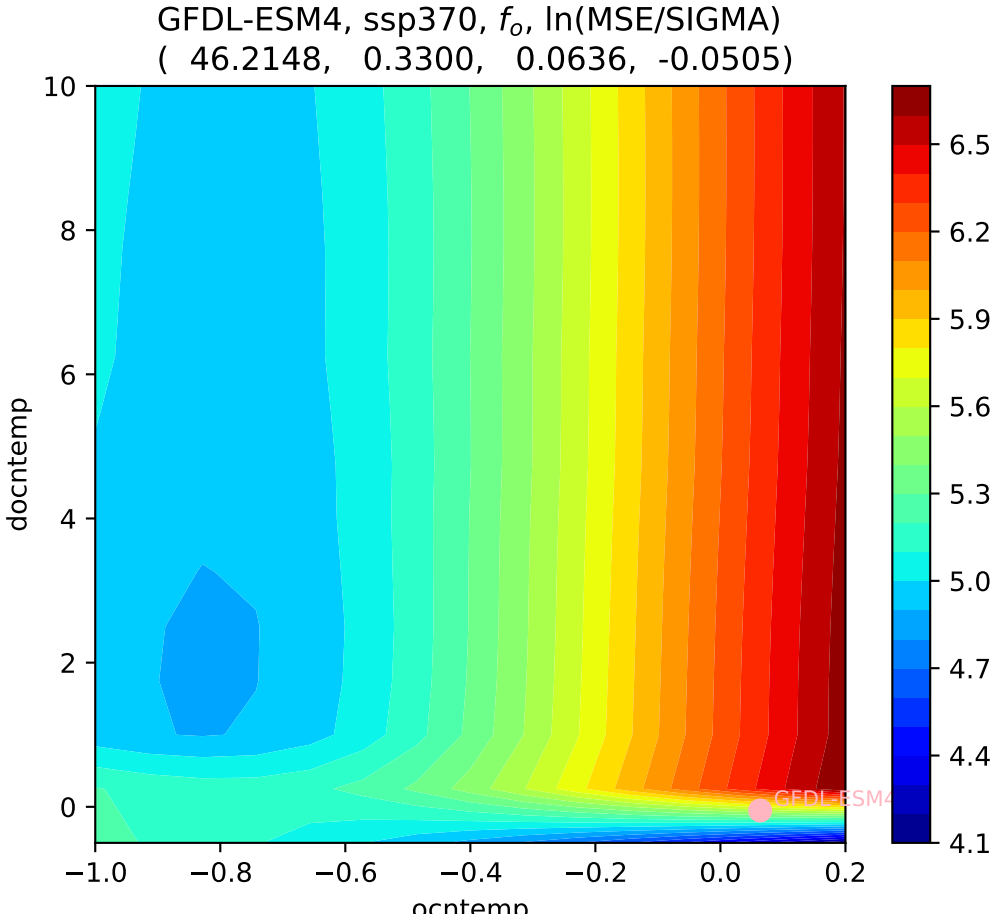

GFDL-ESM4, ssp370, f_o
ESM
Fit
f_o
ΔT


GFDL-ESM4, ssp370, f_o
ESM-Fit
f_o, ESM - FIT
ΔT


GFDL-ESM4, ssp370, f_o
ESM
Fit
f_o
c_atm


GFDL-ESM4, ssp370, f_o
ESM-Fit
f_o, ESM - FIT
c_atm


GFDL-ESM4, ssp370, f_o, ln(MSE/SIGMA)
(46.2148, 0.3300, 0.0636, -0.0505)
GFDL-ESM4
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
5.4
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6
0.0


GFDL-ESM4, ssp370, f_o, ln(MSE/SIGMA)
(46.2148, 0.3300, 0.0636, -0.0505)
10
8
6
4
2
0
docntemp
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
ocntemp
6.5
6.2
5.9
5.6
5.3
5.0
4.7
4.4
4.1
GFDL-ESM4