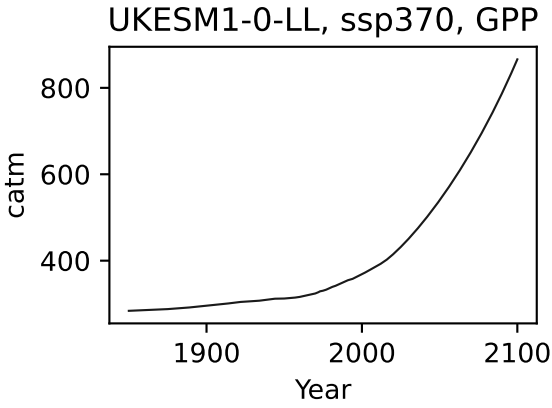
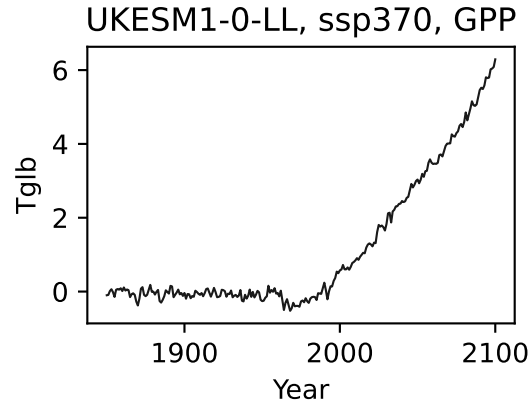
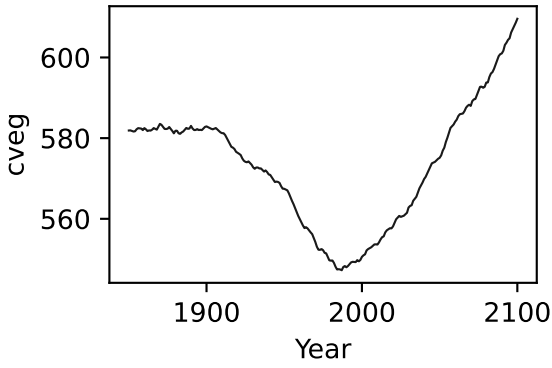
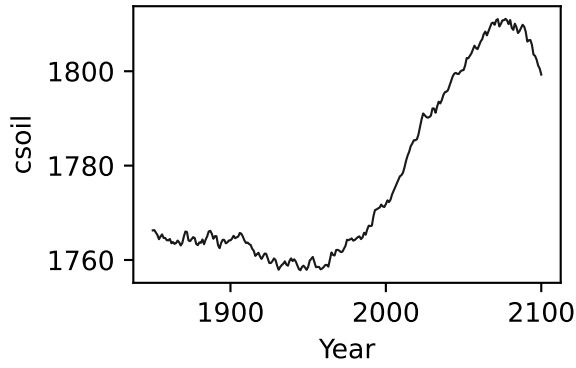
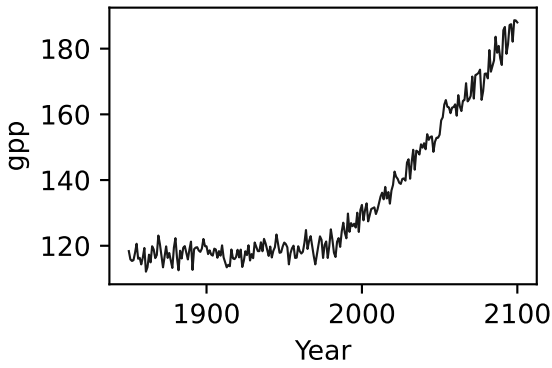
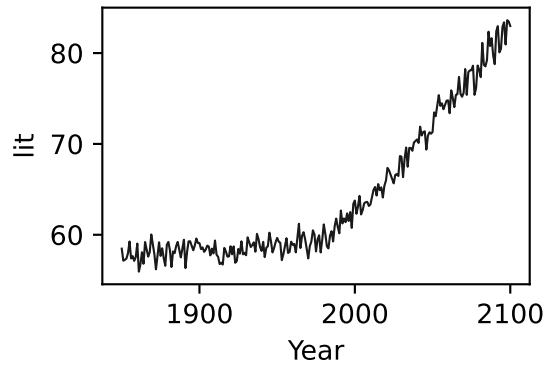

UKESM1-0-LL, ssp370, GPP
catm
800
600
400
1900
2000
2100
Year

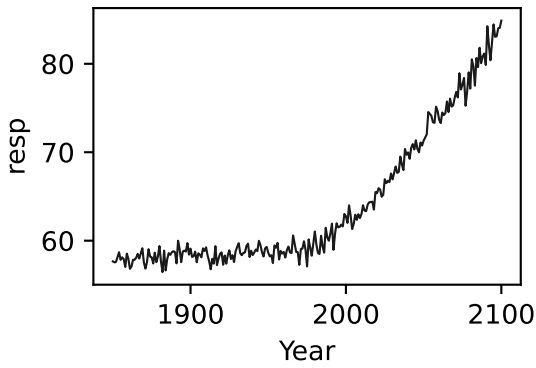

UKESM1-0-LL, ssp370, GPP
Tglb
6
4
2
0
1900
2000
2100
Year

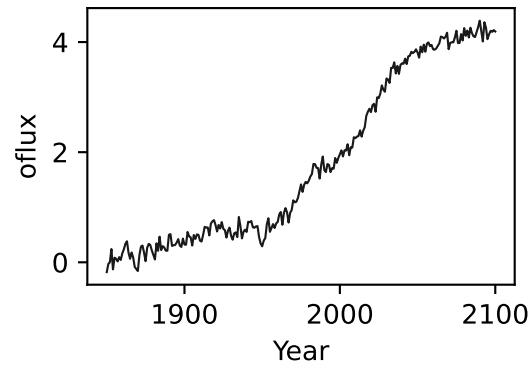

cveg
600
580
560
1900
2000
2100
Year

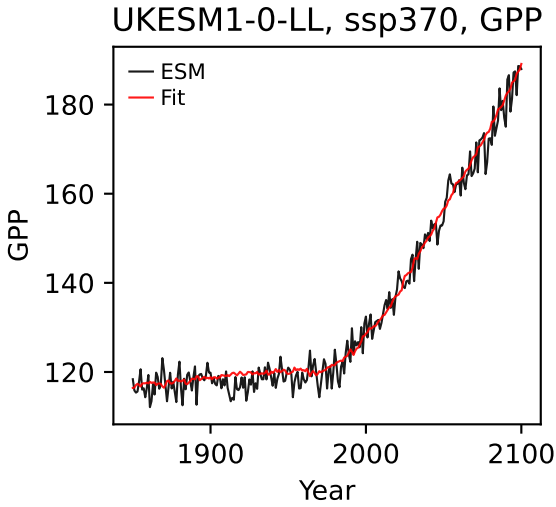

csoil
1800
1780
1760
1900
2000
2100
Year

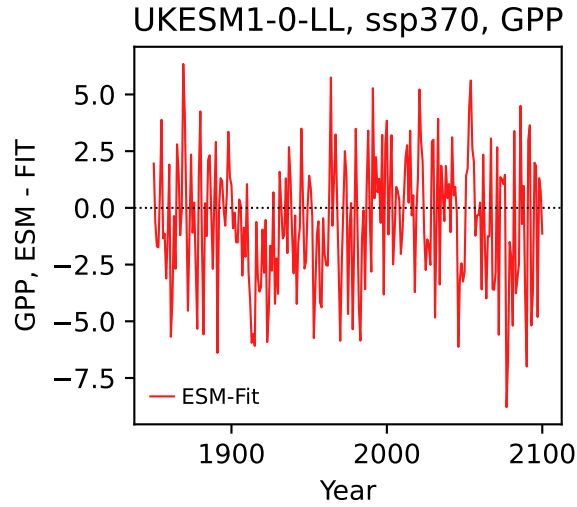

gpp
180
160
140
120
1900
2000
2100
Year

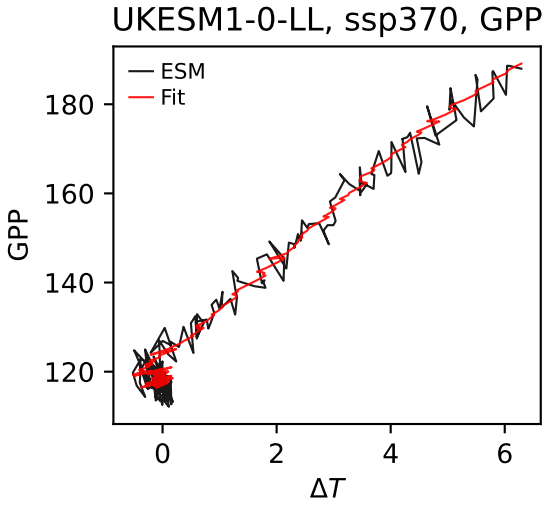

lit
80
70
60
1900
2000
2100
Year

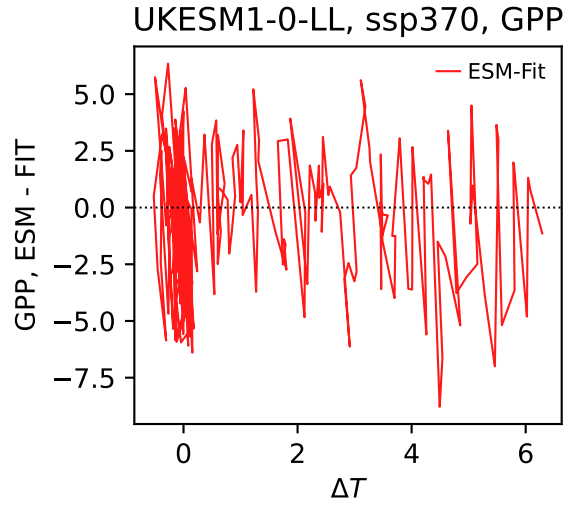

resp
80
70
60
1900
2000
2100
Year

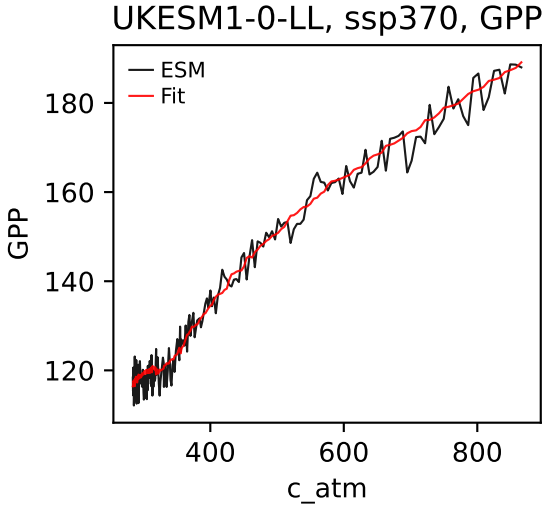

oflux
4
2
0
1900
2000
2100
Year

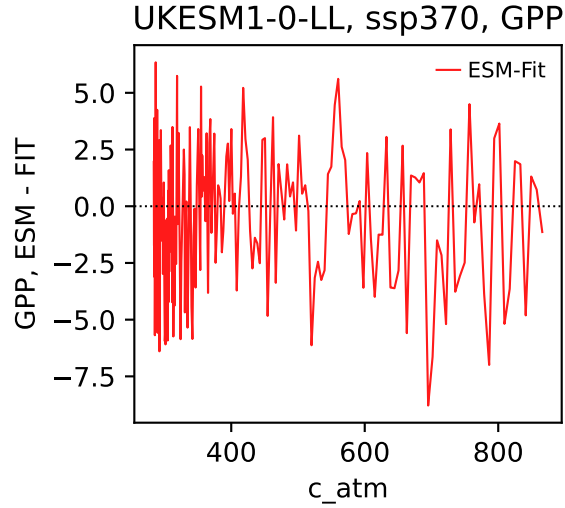

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
Year

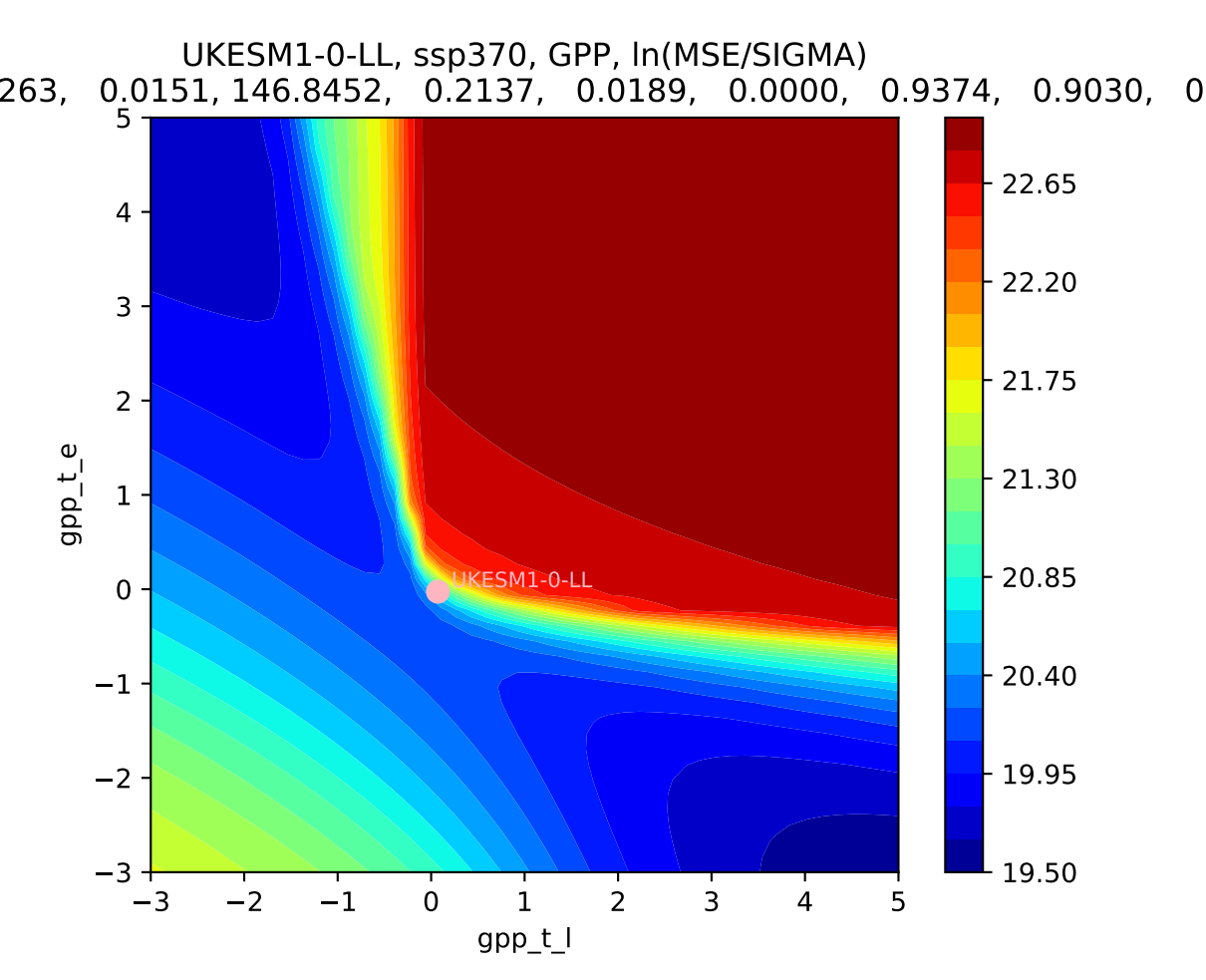

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
Year

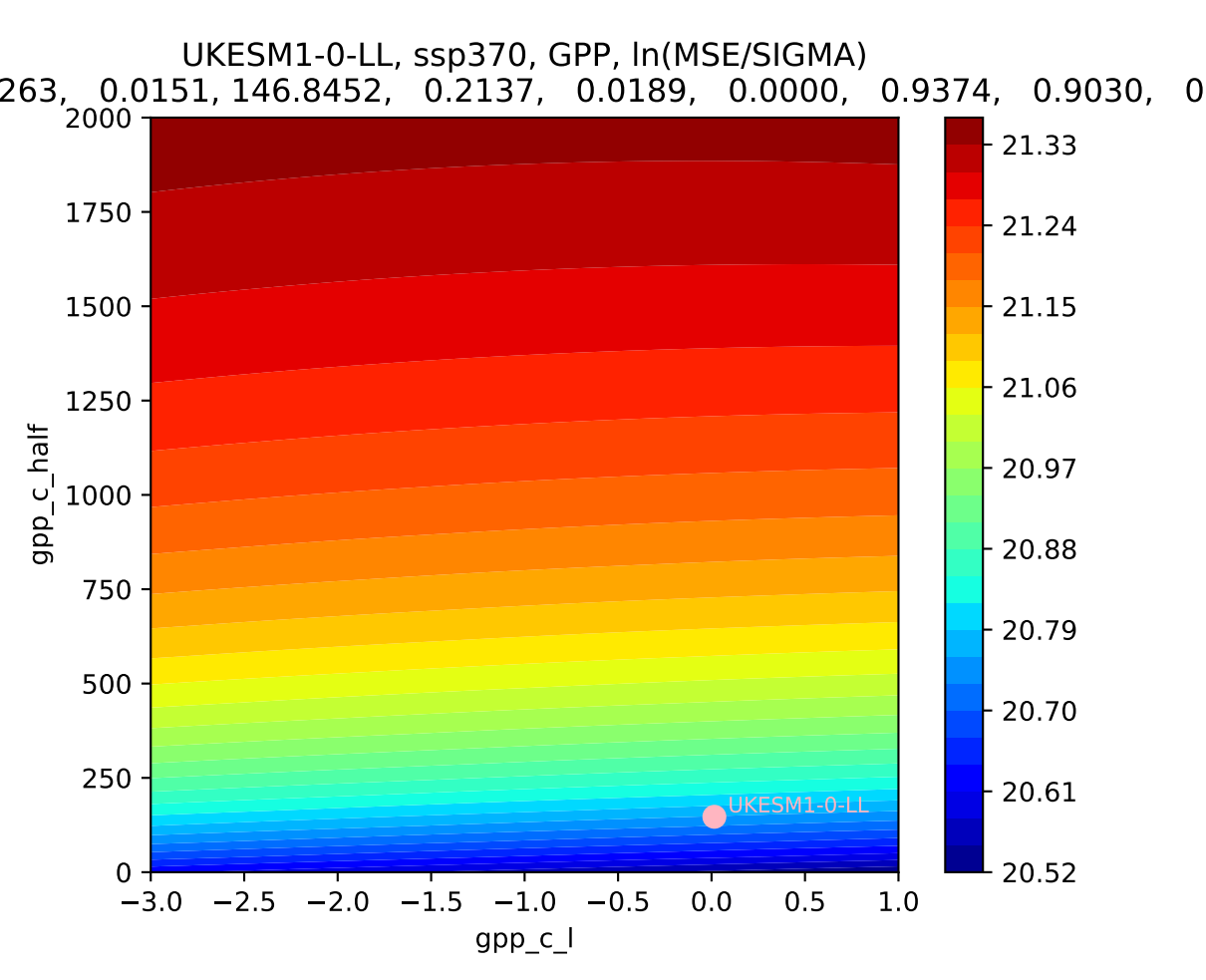

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
ΔT

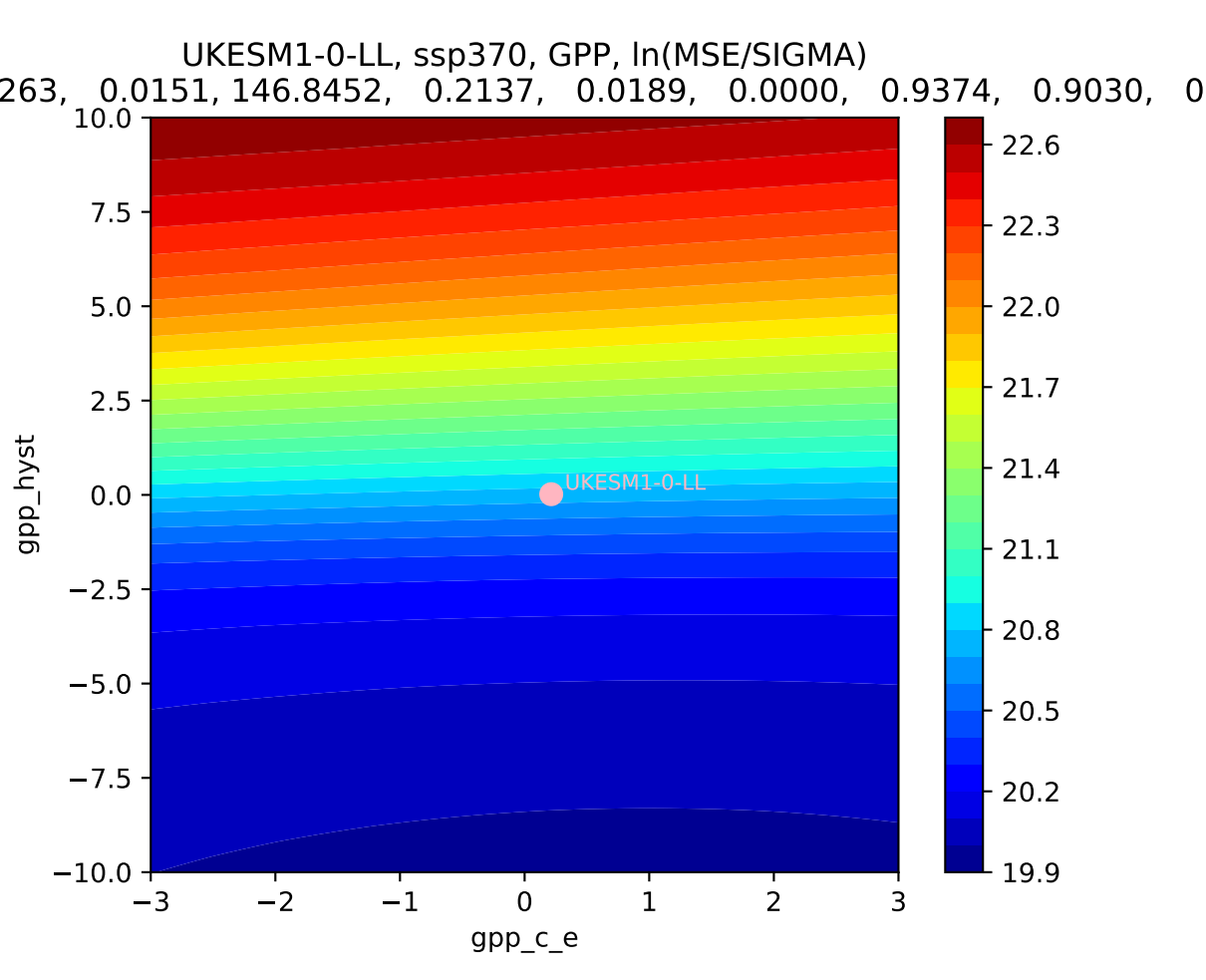

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
ΔT

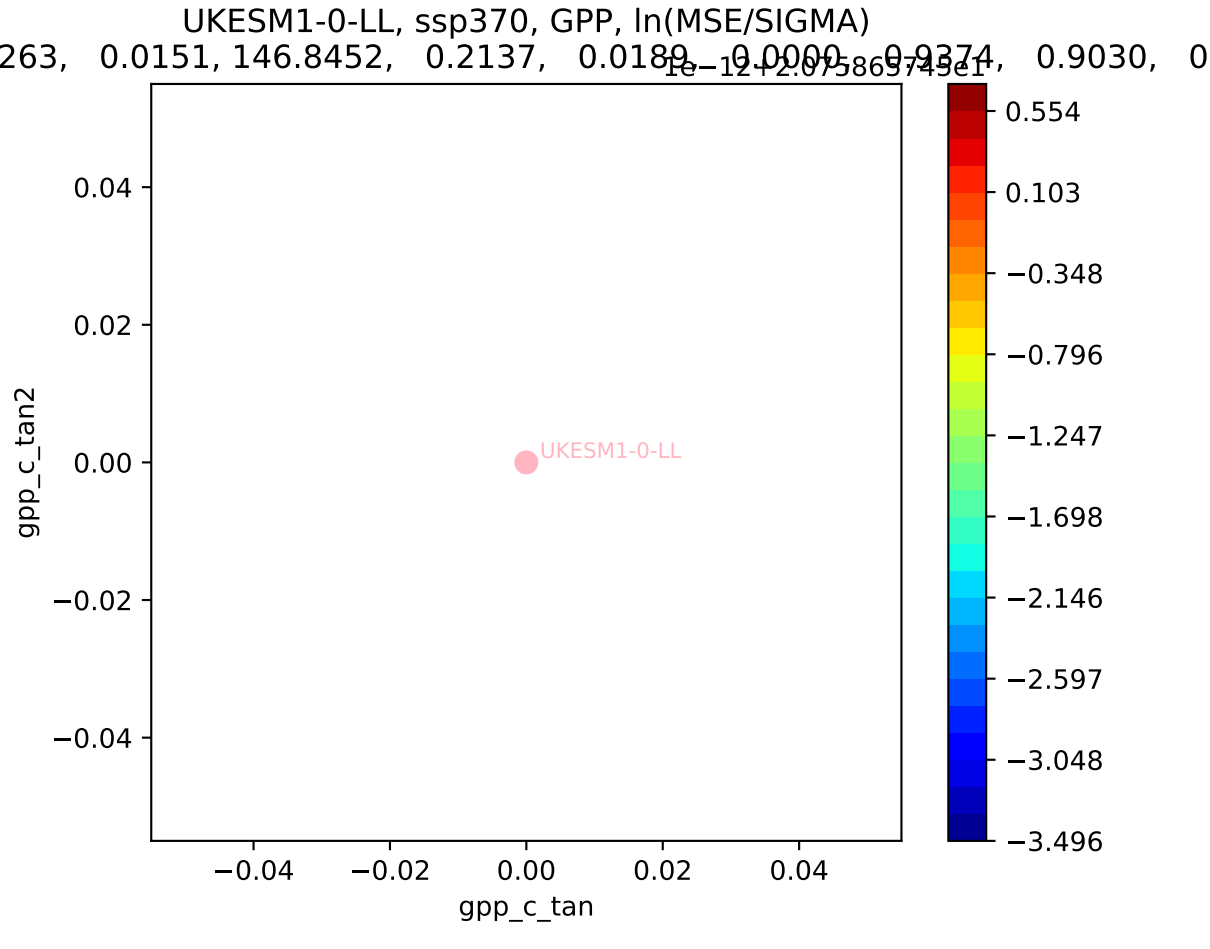

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
c_atm

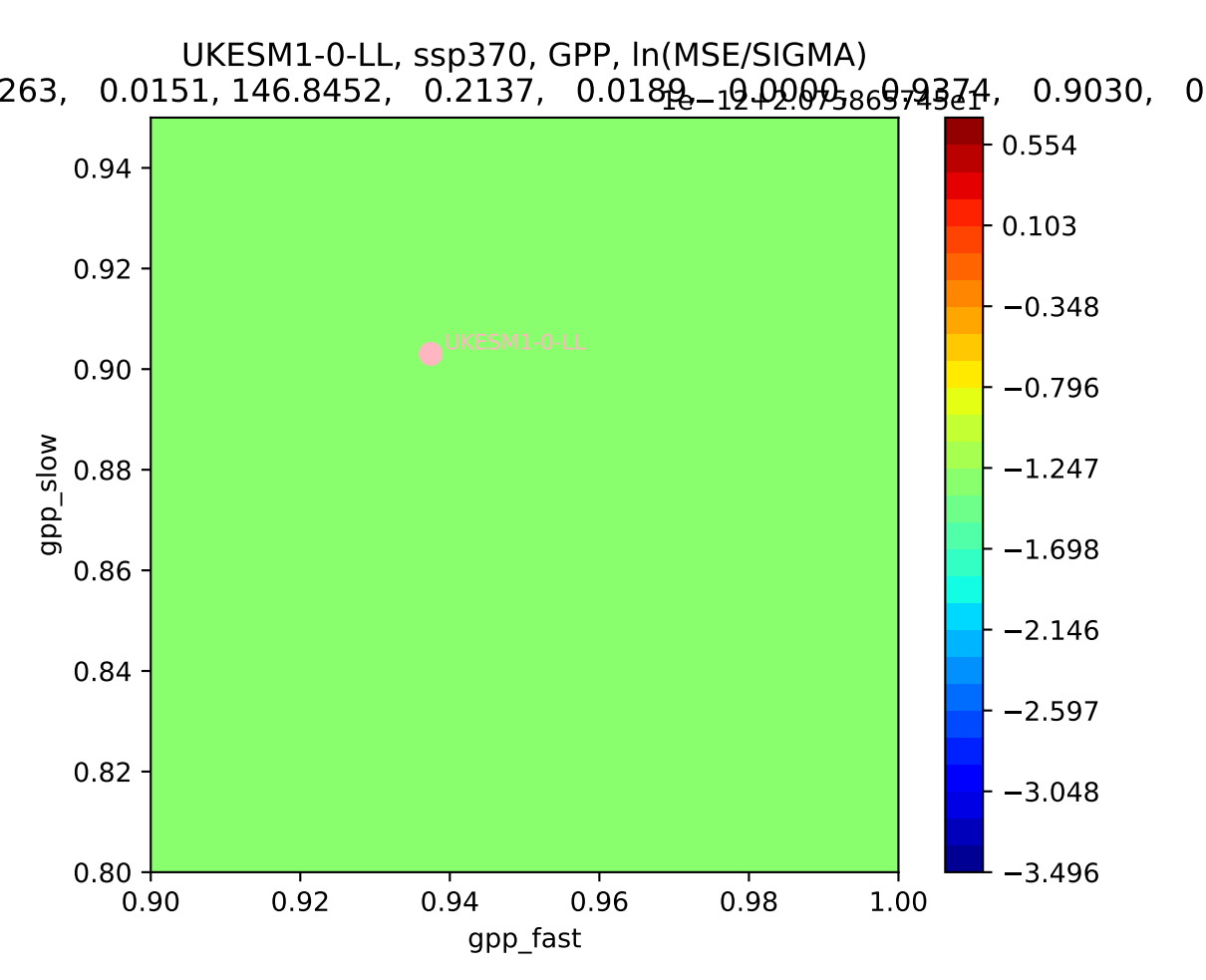

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
c_atm

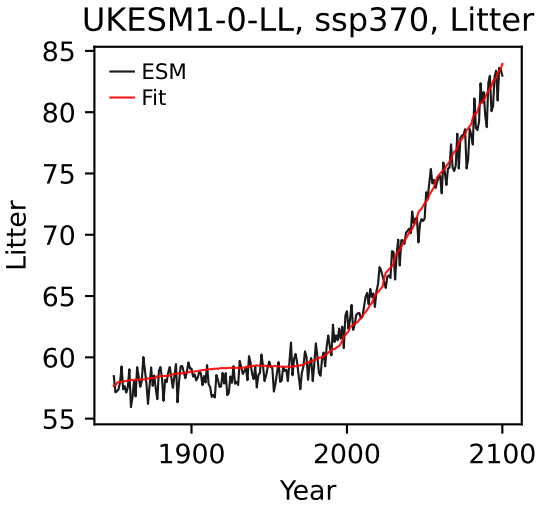

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
UKESM1-0-LL
gpp_t_e
gpp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
22.65
22.20
21.75
21.30
20.85
20.40
19.95
19.50

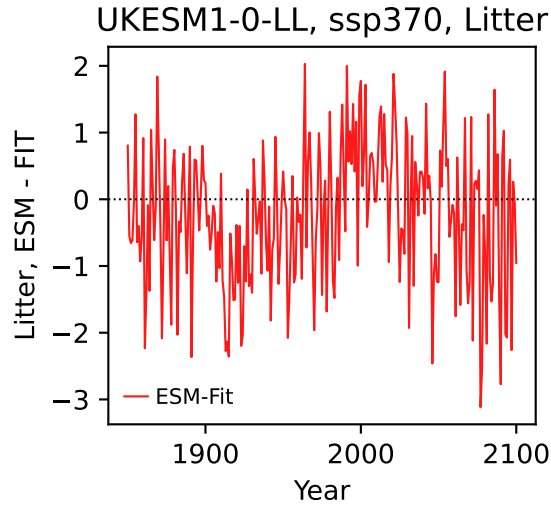

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
gpp_c_half
gpp_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
21.33
21.24
21.15
21.06
20.97
20.88
20.79
20.70
20.61
20.52

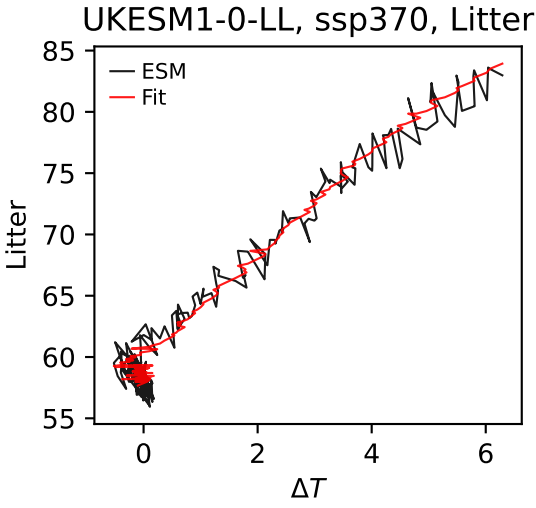

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
UKESM1-0-LL
gpp_hyst
gpp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.6
22.3
22.0
21.7
21.4
21.1
20.8
20.5
20.2
19.9

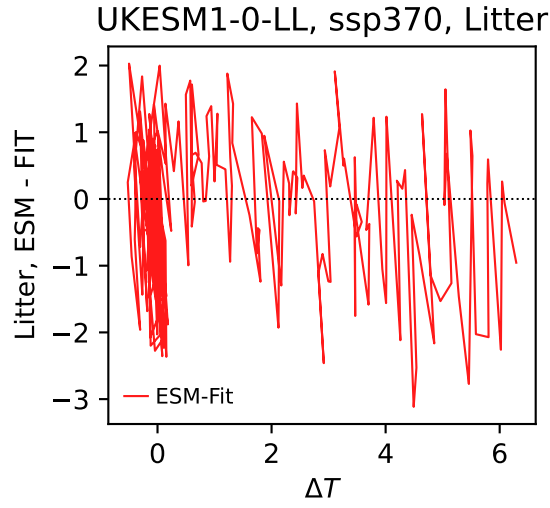

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
1e−12+2.075865745e1
UKESM1-0-LL
gpp_c_tan2
gpp_c_tan
0.04
0.02
0.00
−0.02
−0.04
0.554
0.103
−0.348
−0.796
−1.247
−1.698
−2.146
−2.597
−3.048
−3.496

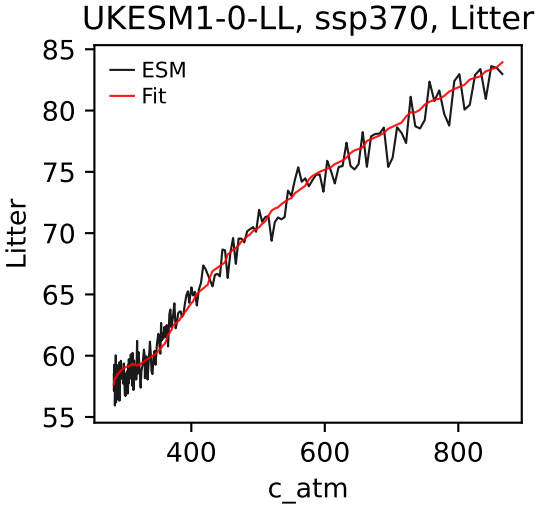

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
1e−12+2.075865745e1
UKESM1-0-LL
gpp_slow
gpp_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
0.554
0.103
−0.348
−0.796
−1.247
−1.698
−2.146
−2.597
−3.048
−3.496

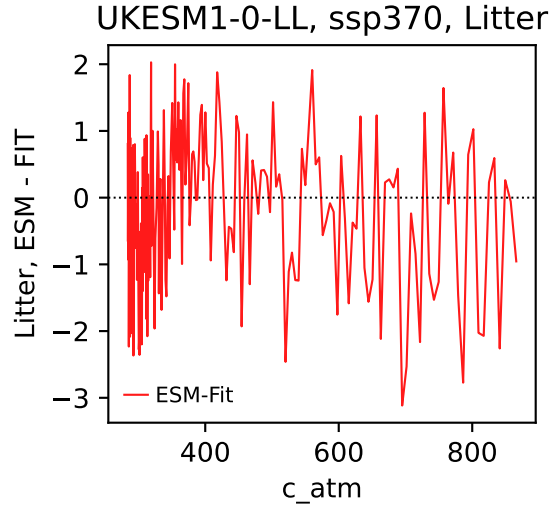

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
Year

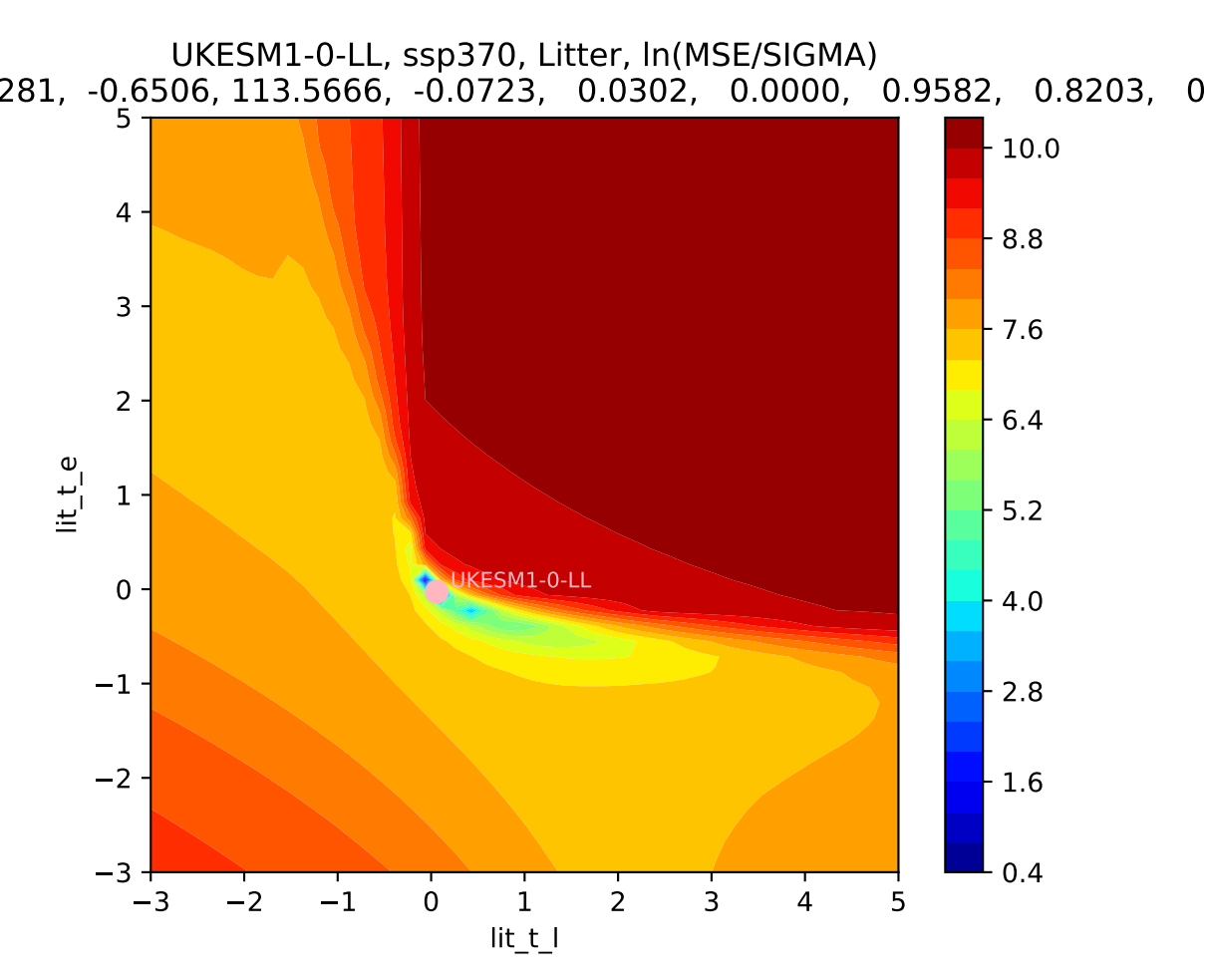

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
Year

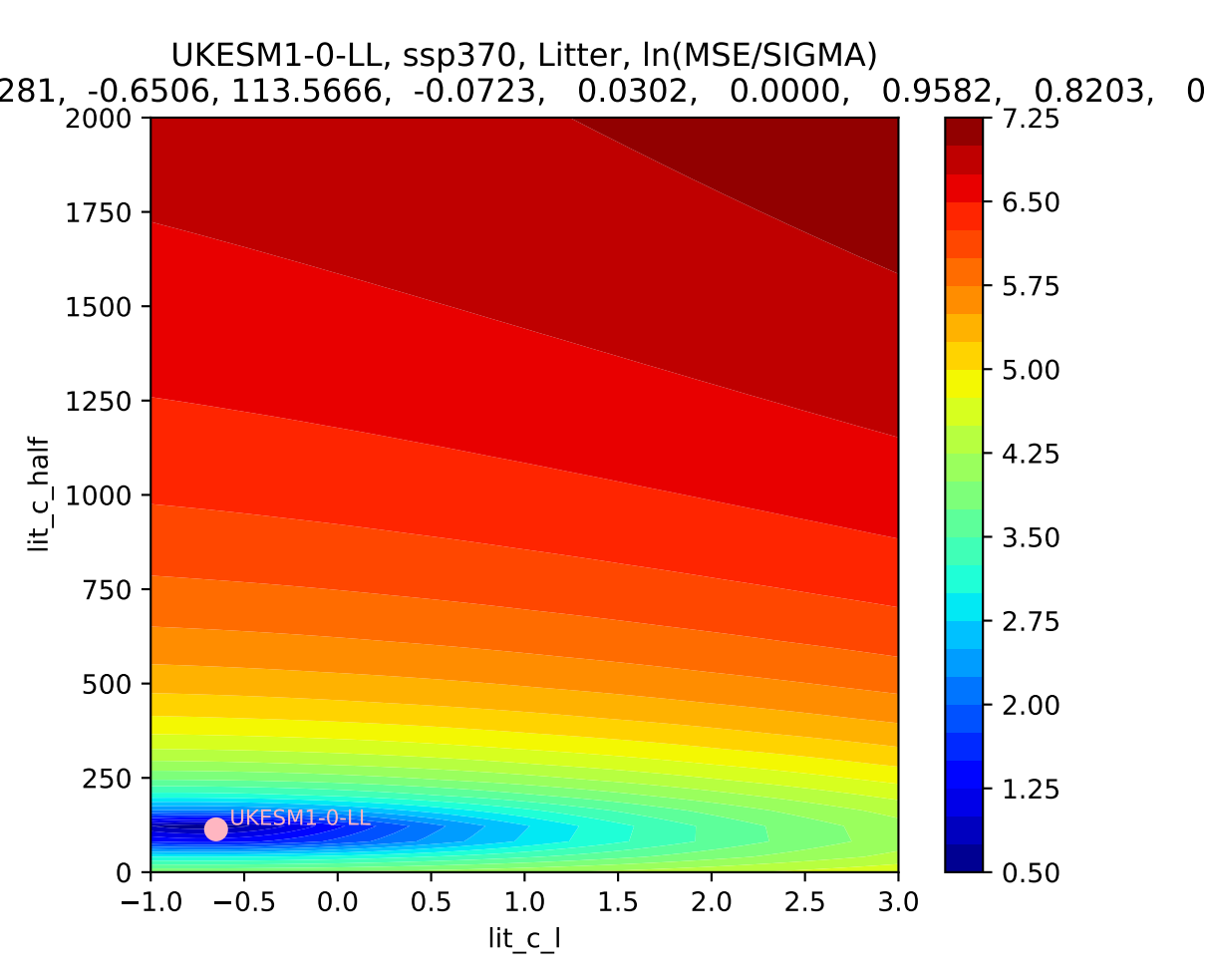

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
ΔT

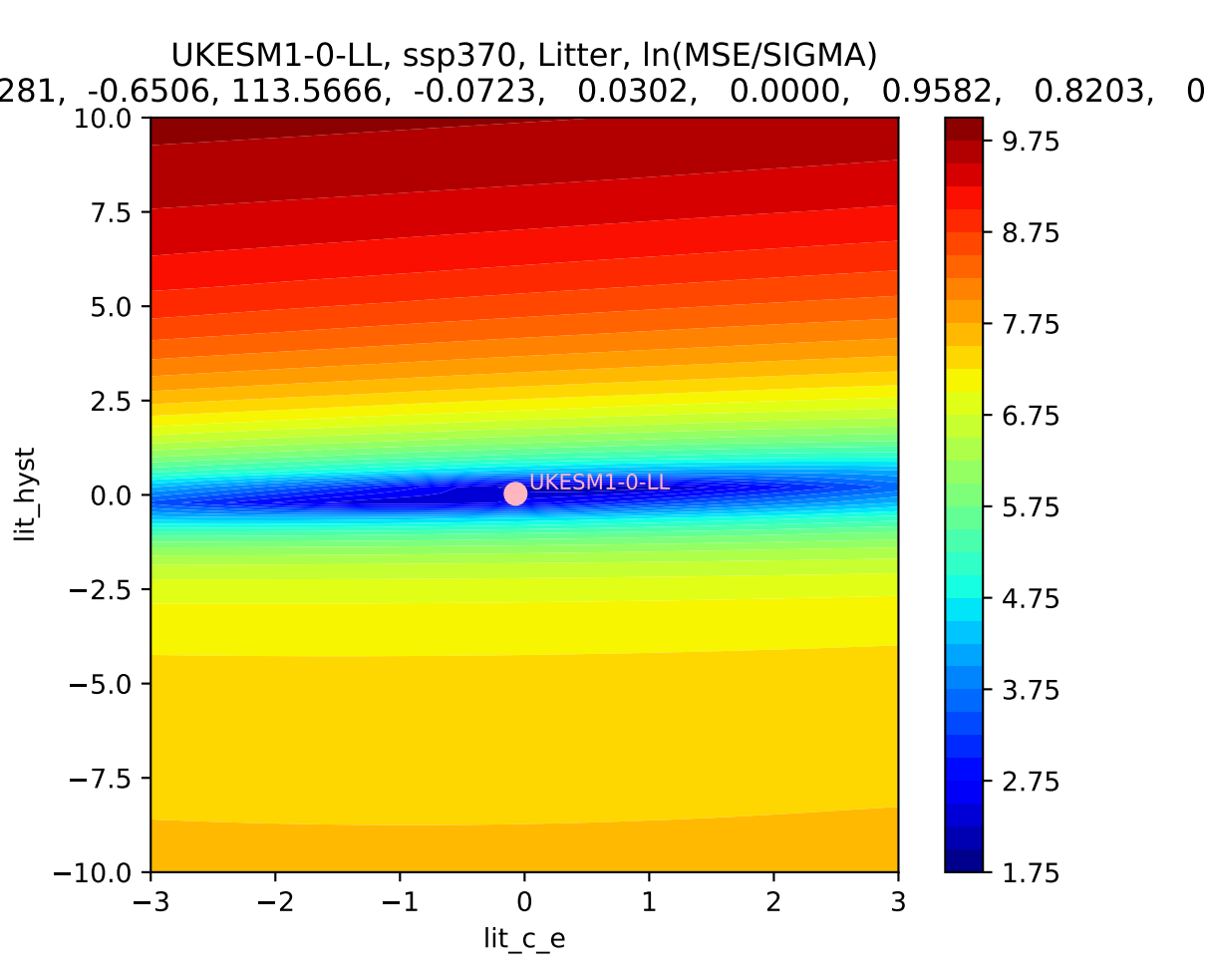

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
ΔT

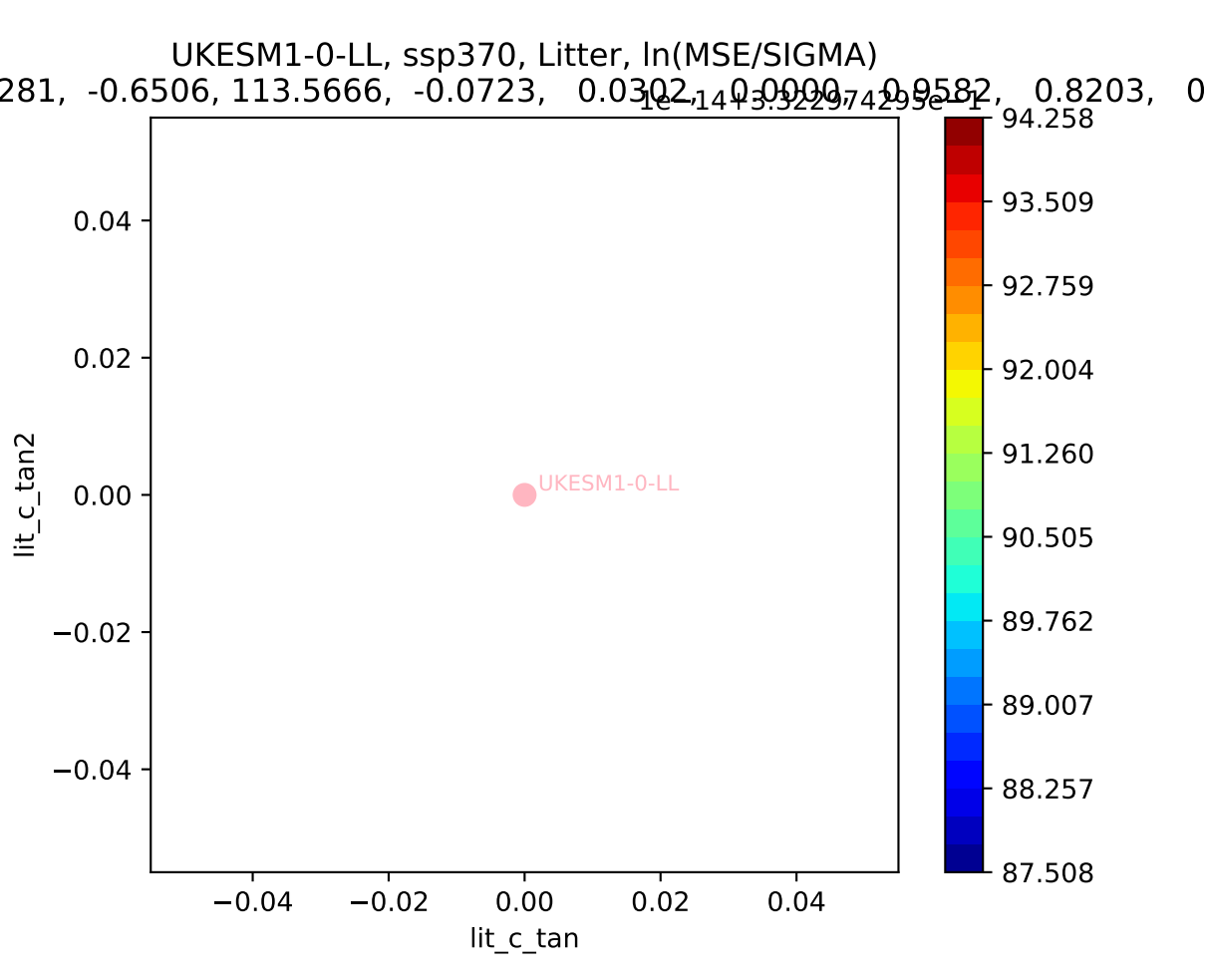

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
c_atm

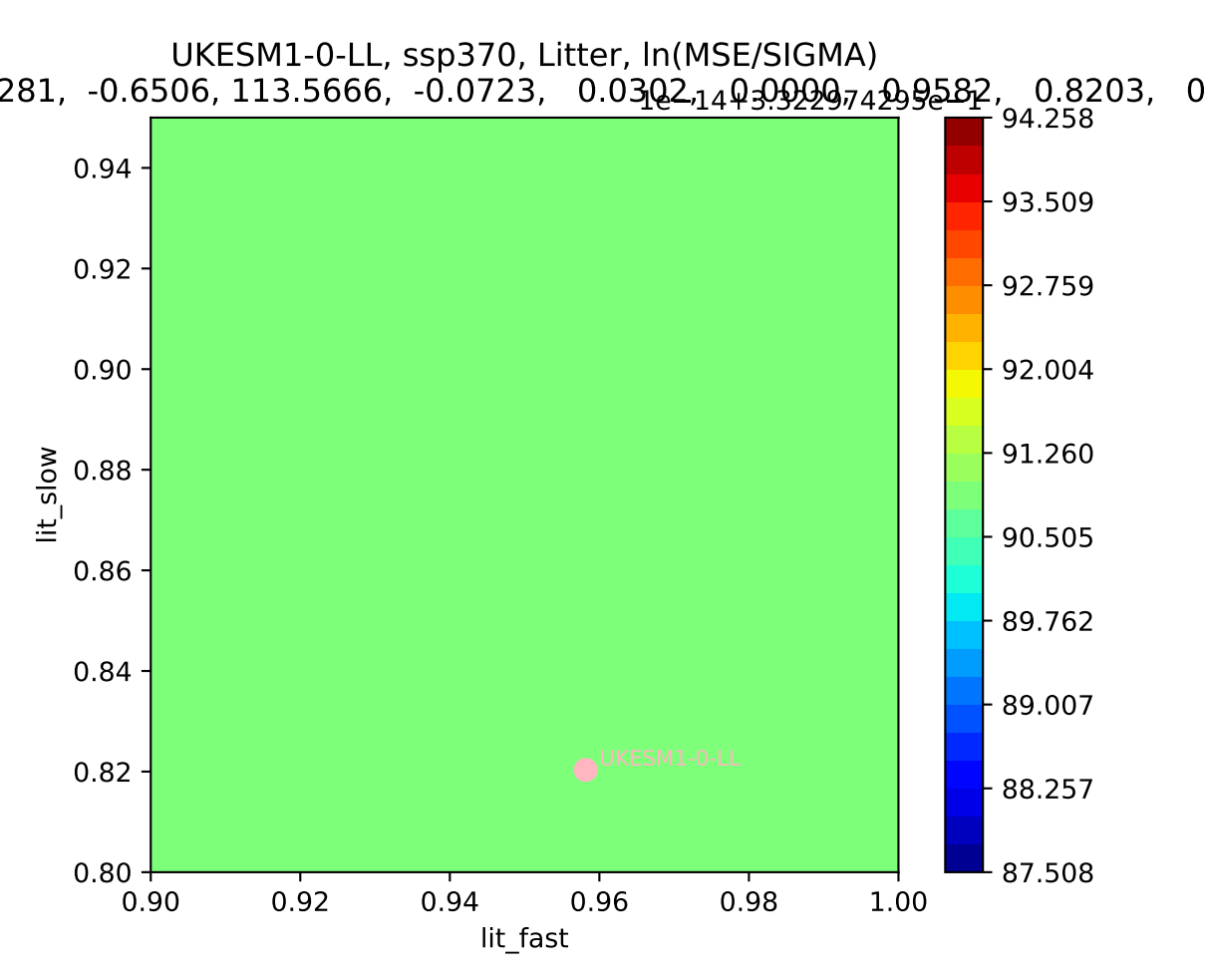

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
c_atm

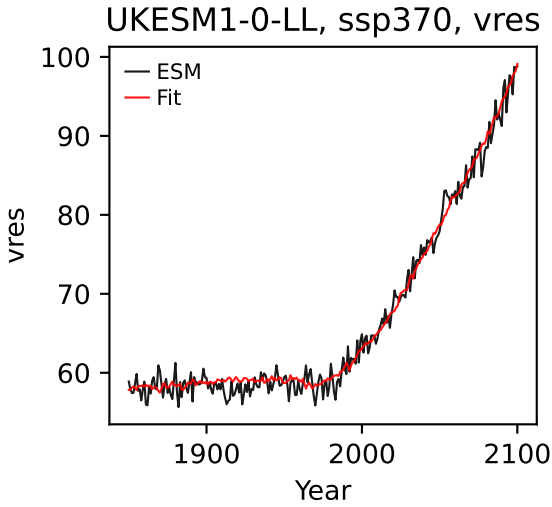

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
UKESM1-0-LL
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
10.0
8.8
7.6
6.4
5.2
4.0
2.8
1.6
0.4

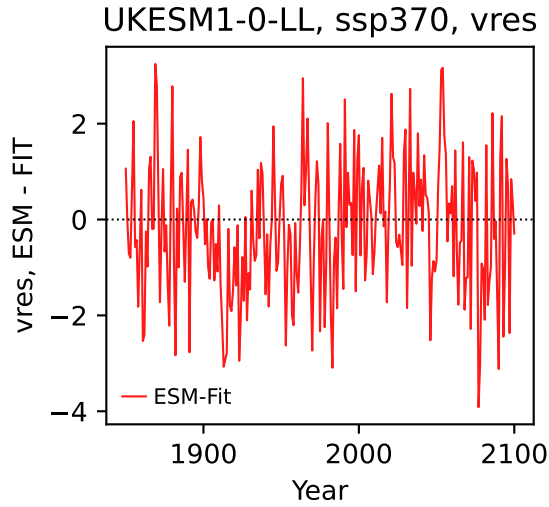

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
lit_c_half
lit_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
7.25
6.50
5.75
5.00
4.25
3.50
2.75
2.00
1.25
0.50

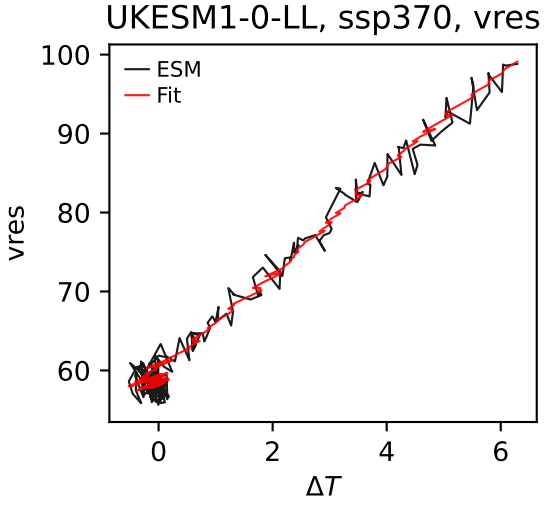

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
UKESM1-0-LL
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
9.75
8.75
7.75
6.75
5.75
4.75
3.75
2.75
1.75

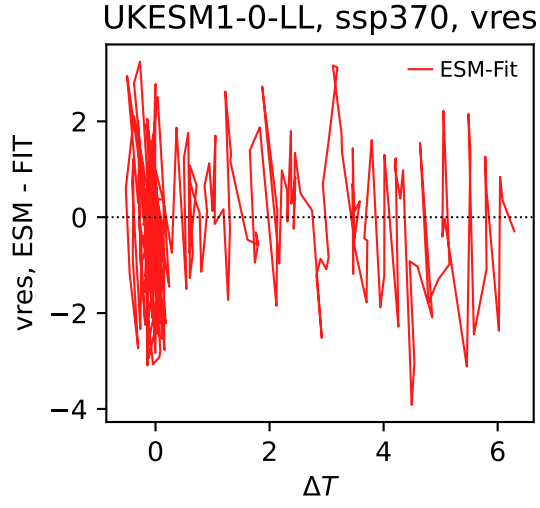

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
1e−14+3.322374295e−1
94.258
93.509
92.759
92.004
91.260
90.505
89.762
89.007
88.257
87.508
0.04
0.02
0.00
−0.02
−0.04
lit_c_tan2
UKESM1-0-LL
−0.04
−0.02
0.00
0.02
0.04
lit_c_tan

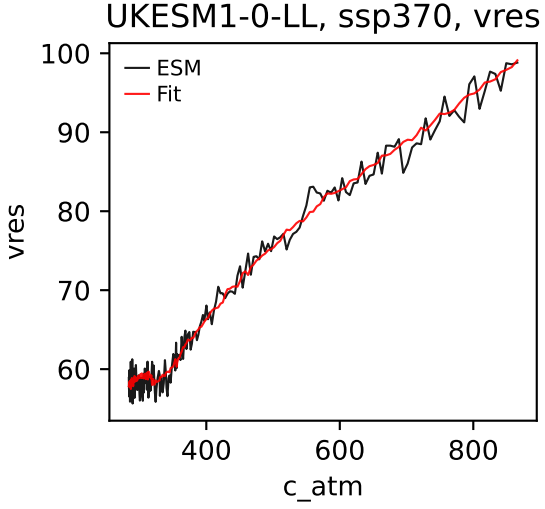

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
1e−14+3.3229742959e−1
94.258
93.509
92.759
92.004
91.260
90.505
89.762
89.007
88.257
87.508
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
lit_slow
UKESM1-0-LL
0.90
0.92
0.94
0.96
0.98
1.00
lit_fast

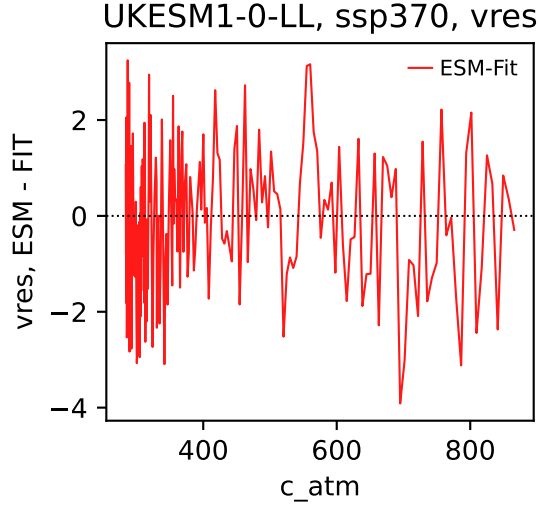

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
Year

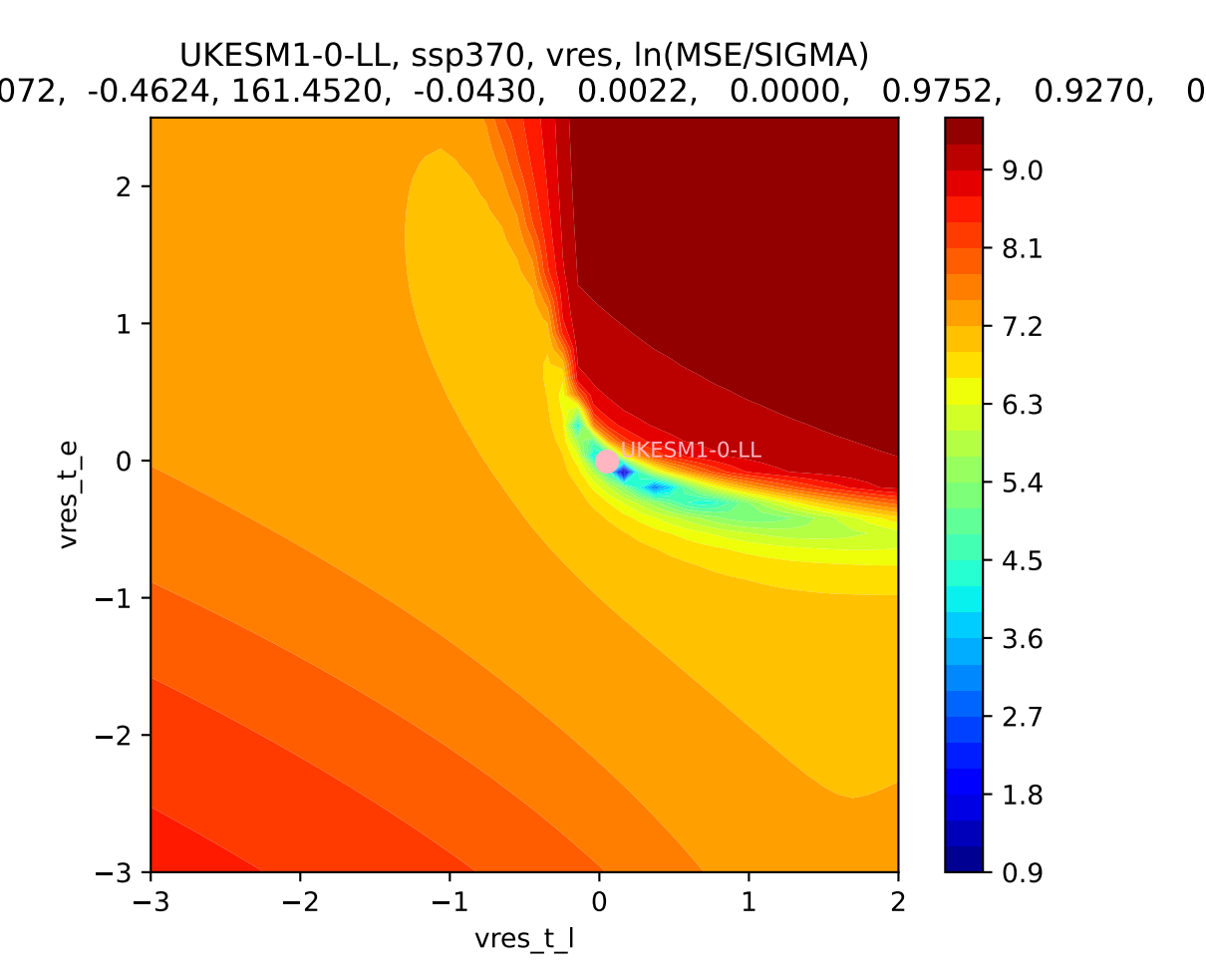

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
Year

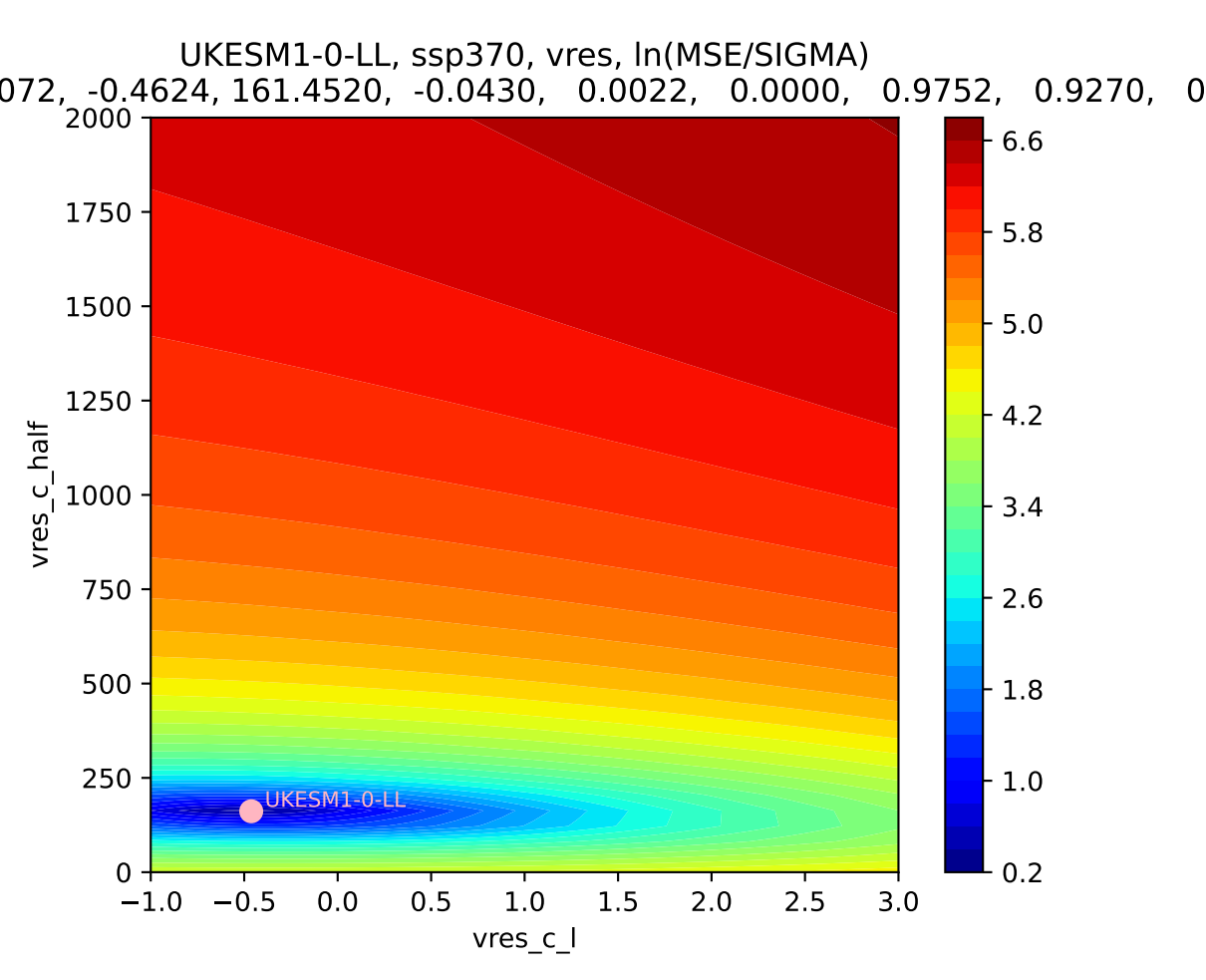

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
ΔT

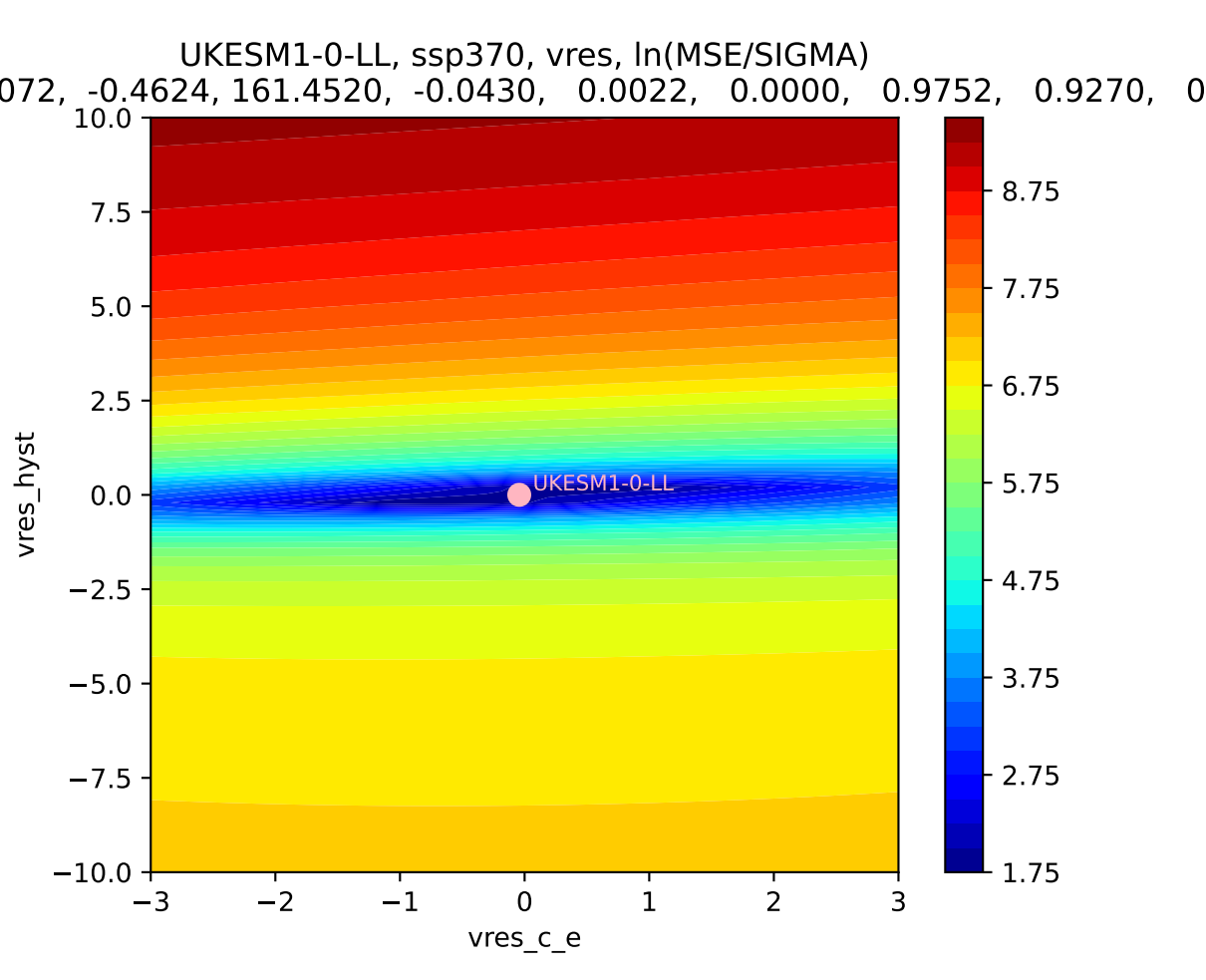

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
ΔT

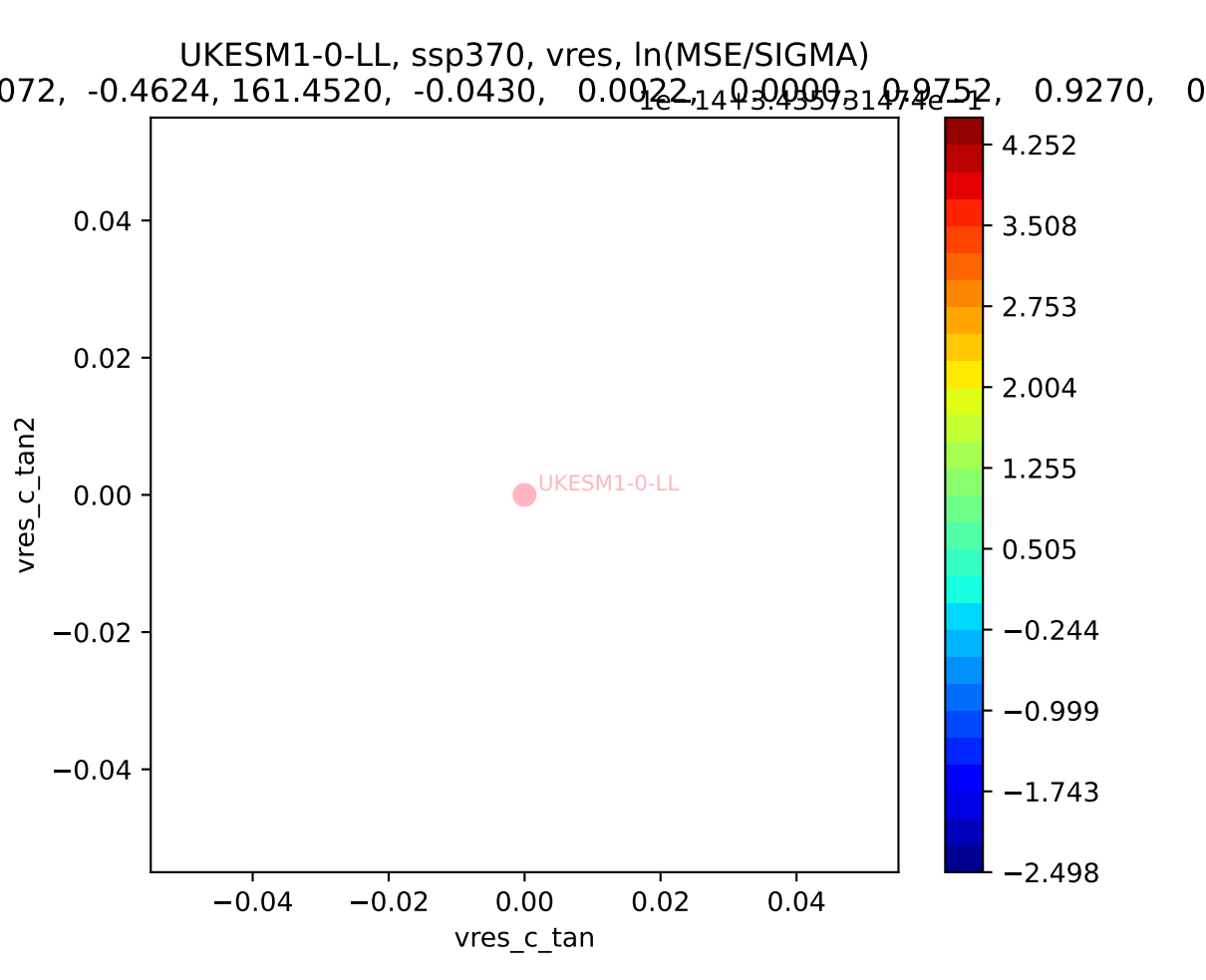

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
c_atm

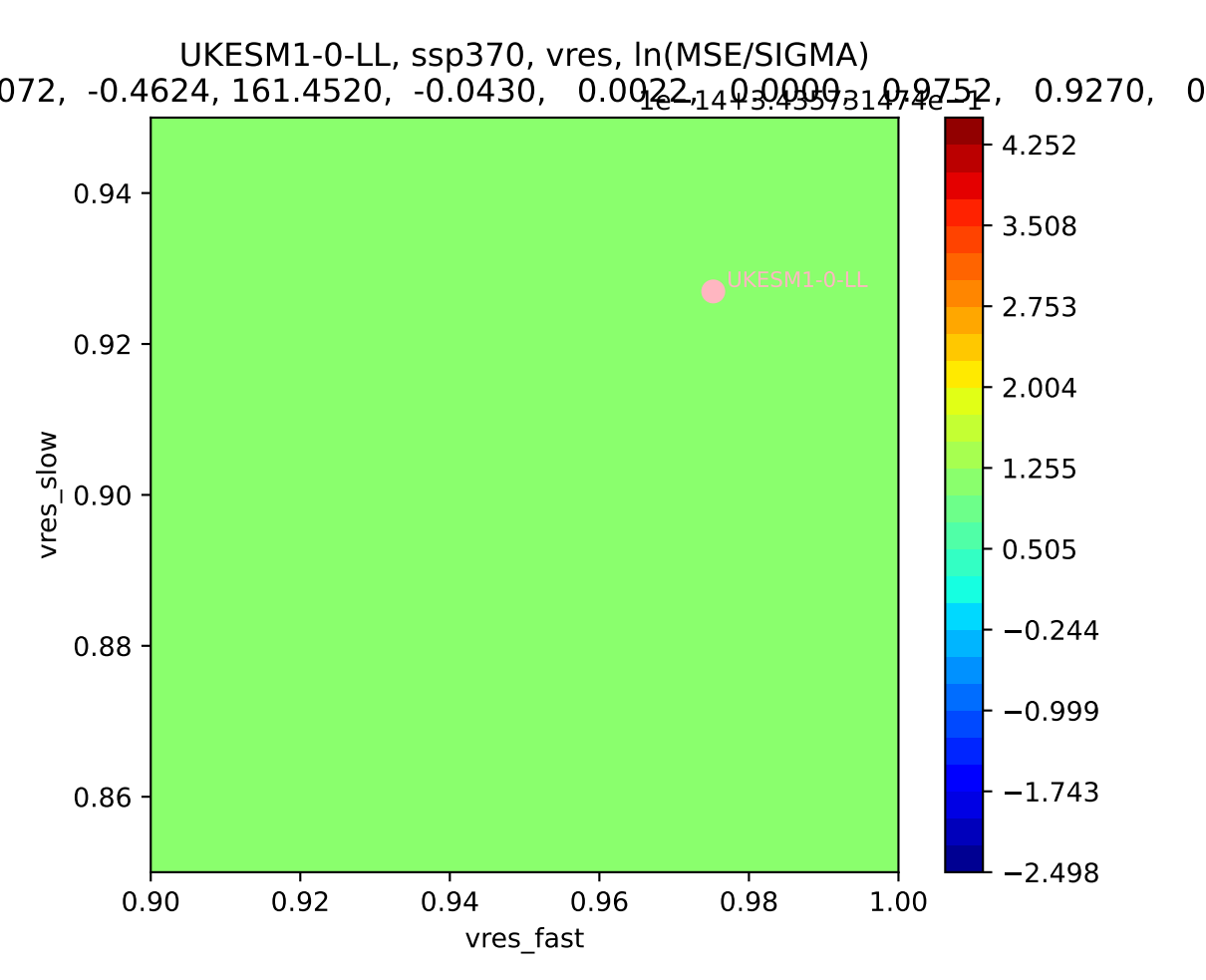

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
c_atm

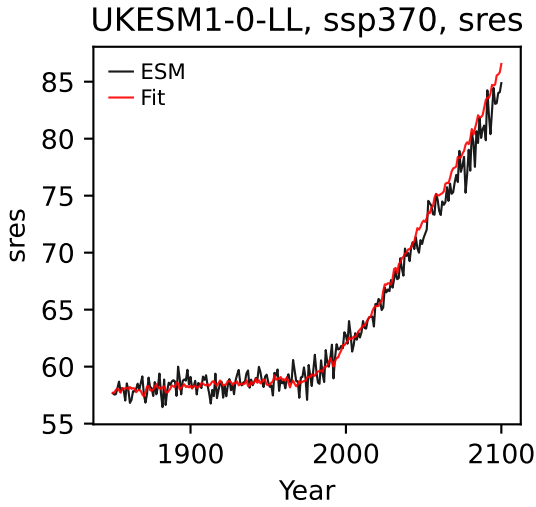

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
UKESM1-0-LL
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
9.0
8.1
7.2
6.3
5.4
4.5
3.6
2.7
1.8
0.9

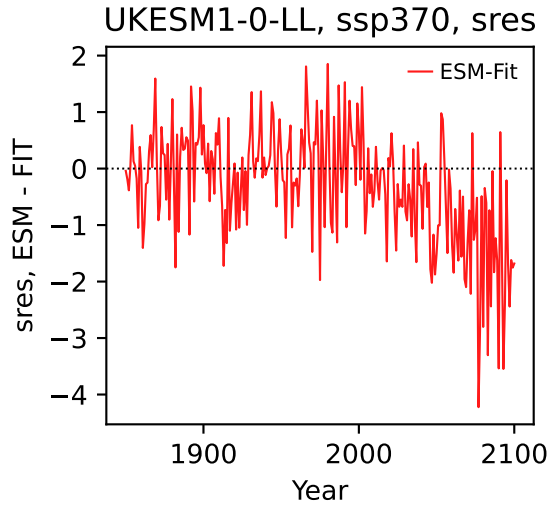

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
vres_c_half
vres_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
6.6
5.8
5.0
4.2
3.4
2.6
1.8
1.0
0.2

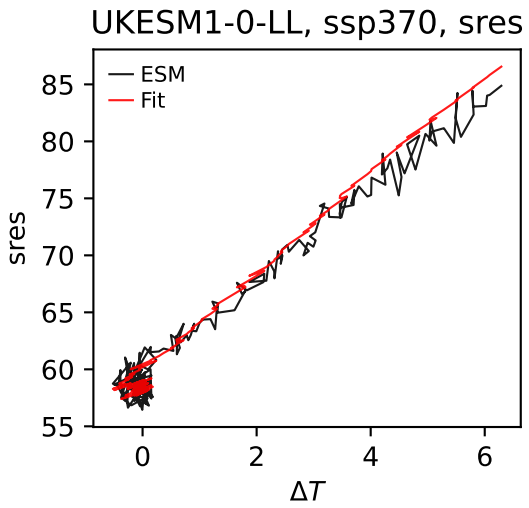

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
vres_hyst
UKESM1-0-LL
−3
−2
−1
0
1
2
3
vres_c_e
8.75
7.75
6.75
5.75
4.75
3.75
2.75
1.75

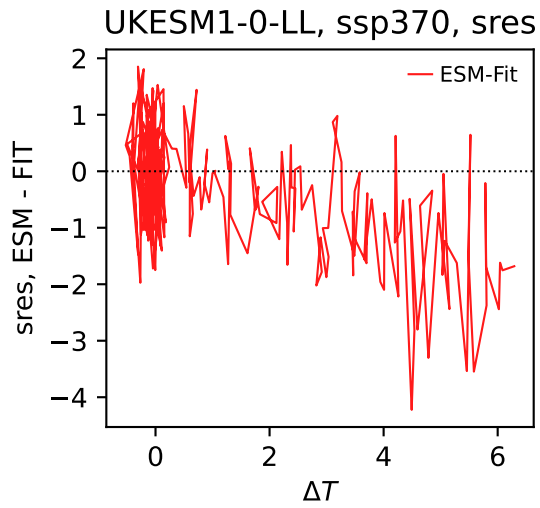

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
1e−14+3.4357314774e−1
UKESM1-0-LL
vres_c_tan2
vres_c_tan
0.04
0.02
0.00
−0.02
−0.04
4.252
3.508
2.753
2.004
1.255
0.505
−0.244
−0.999
−1.743
−2.498

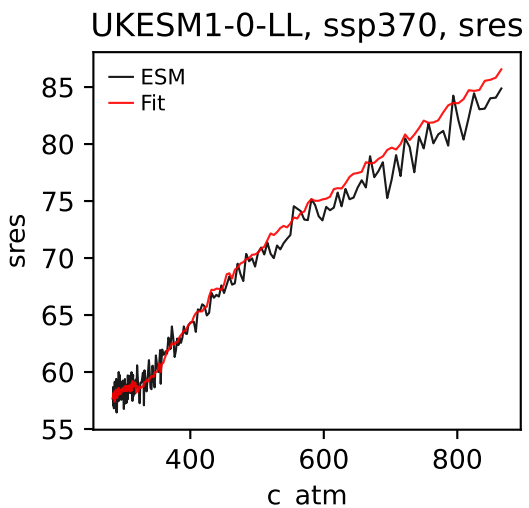

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
1e−14+3.4357314774e−1
UKESM1-0-LL
0.94
0.92
0.90
0.88
0.86
vres_slow
0.90
0.92
0.94
0.96
0.98
1.00
vres_fast
4.252
3.508
2.753
2.004
1.255
0.505
−0.244
−0.999
−1.743
−2.498

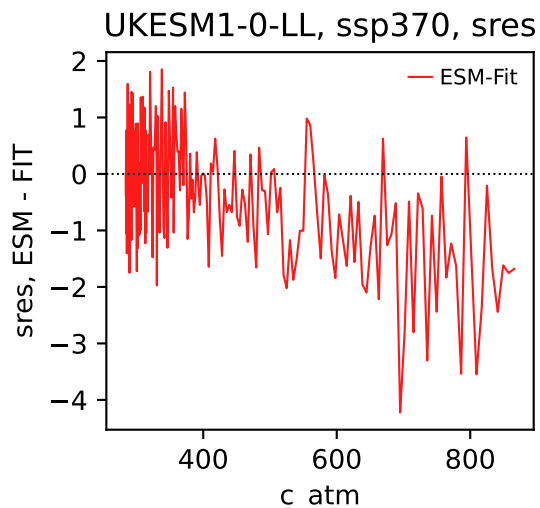

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
Year

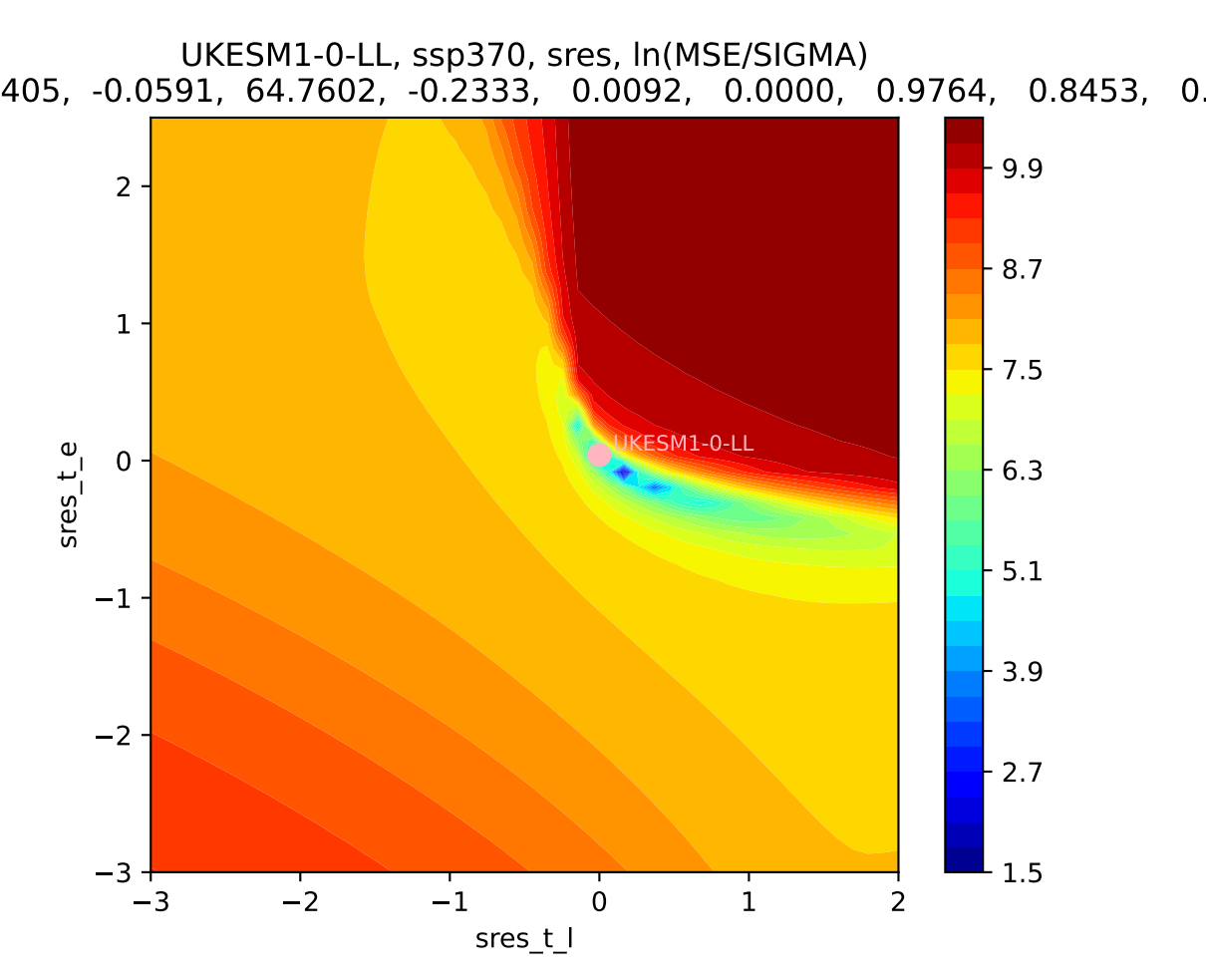

UKESM1-0-LL, ssp370, sres
ESM-Fit
sres, ESM - FIT
Year

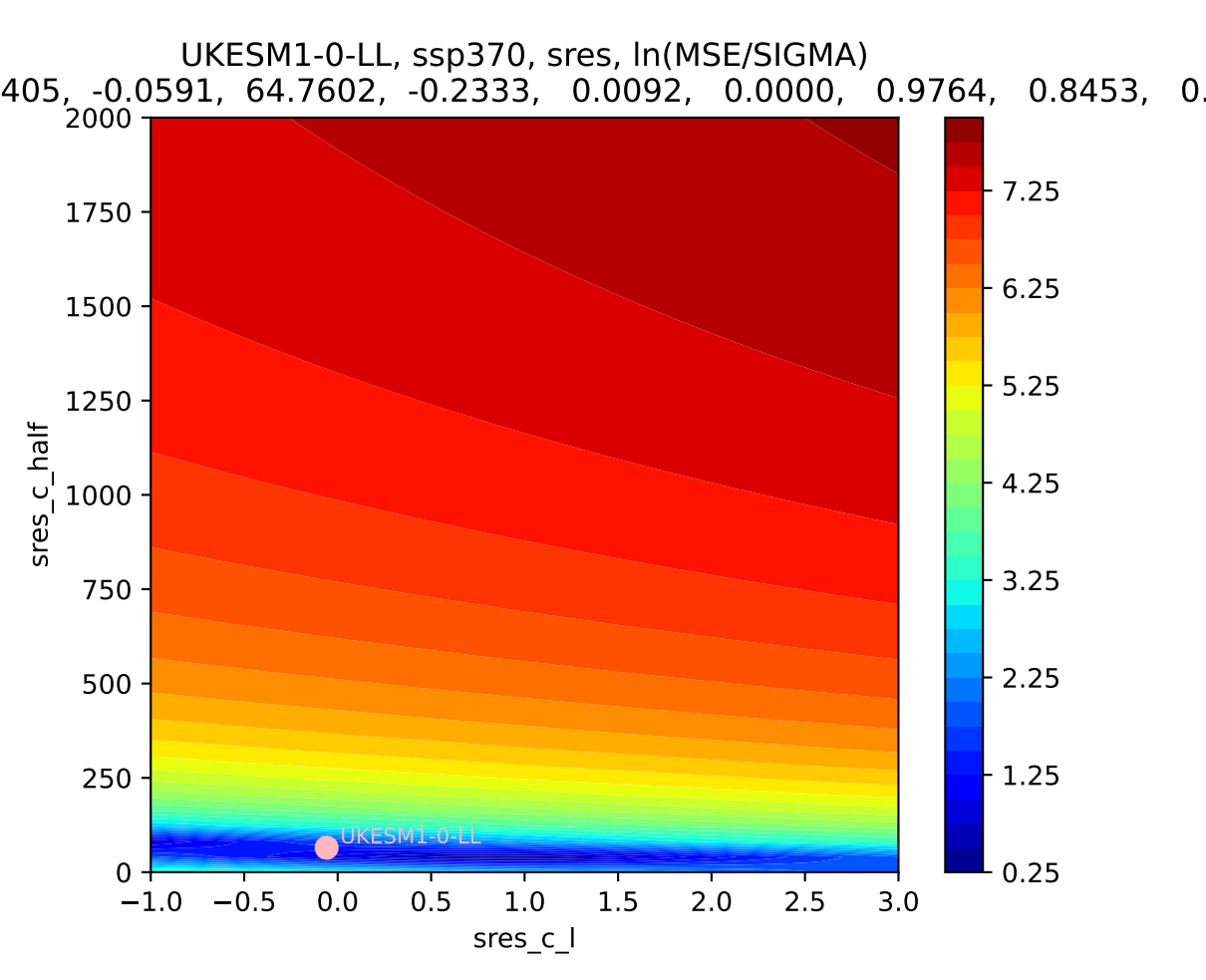

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
ΔT

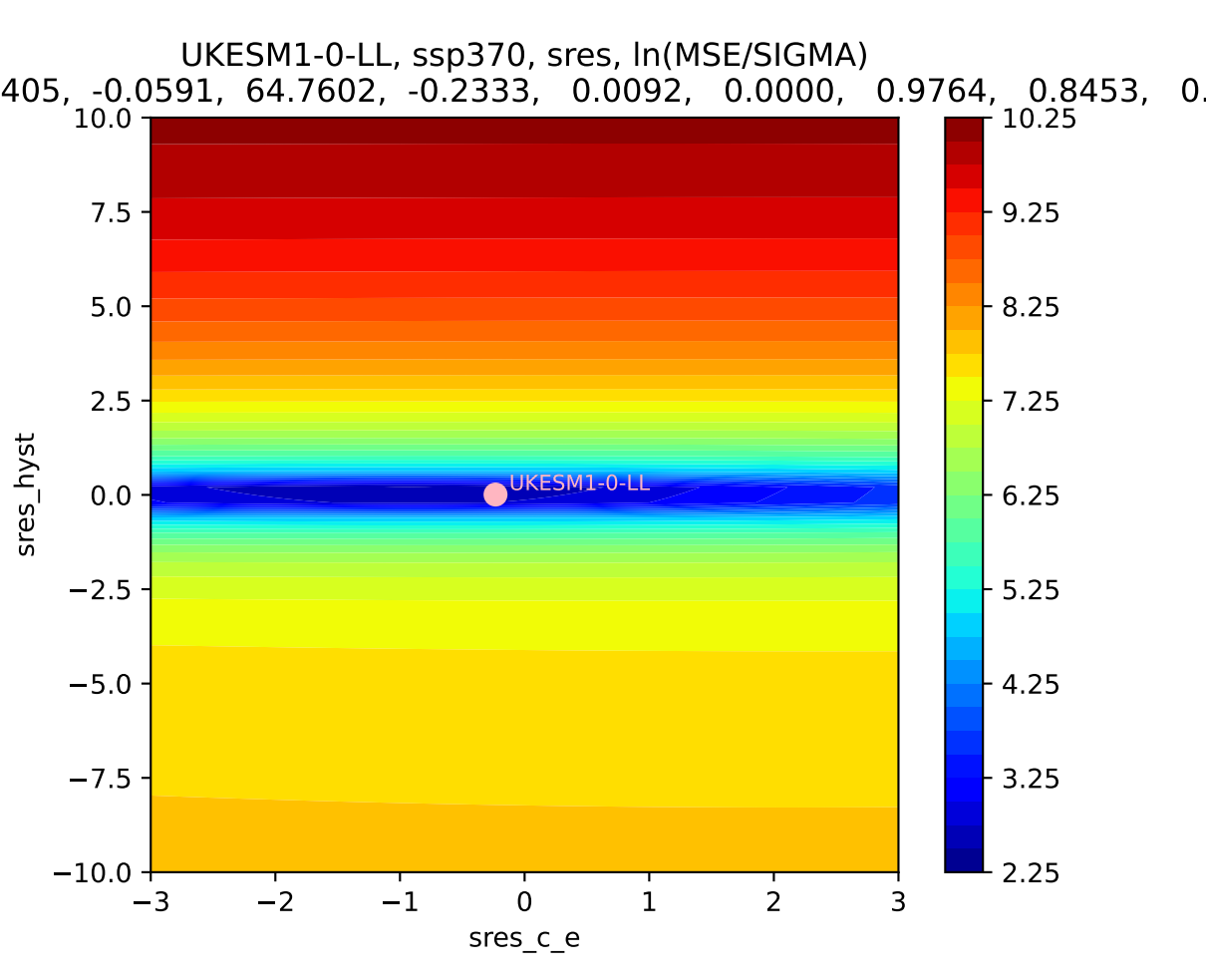

UKESM1-0-LL, ssp370, sres
ESM-Fit
sres, ESM - FIT
ΔT

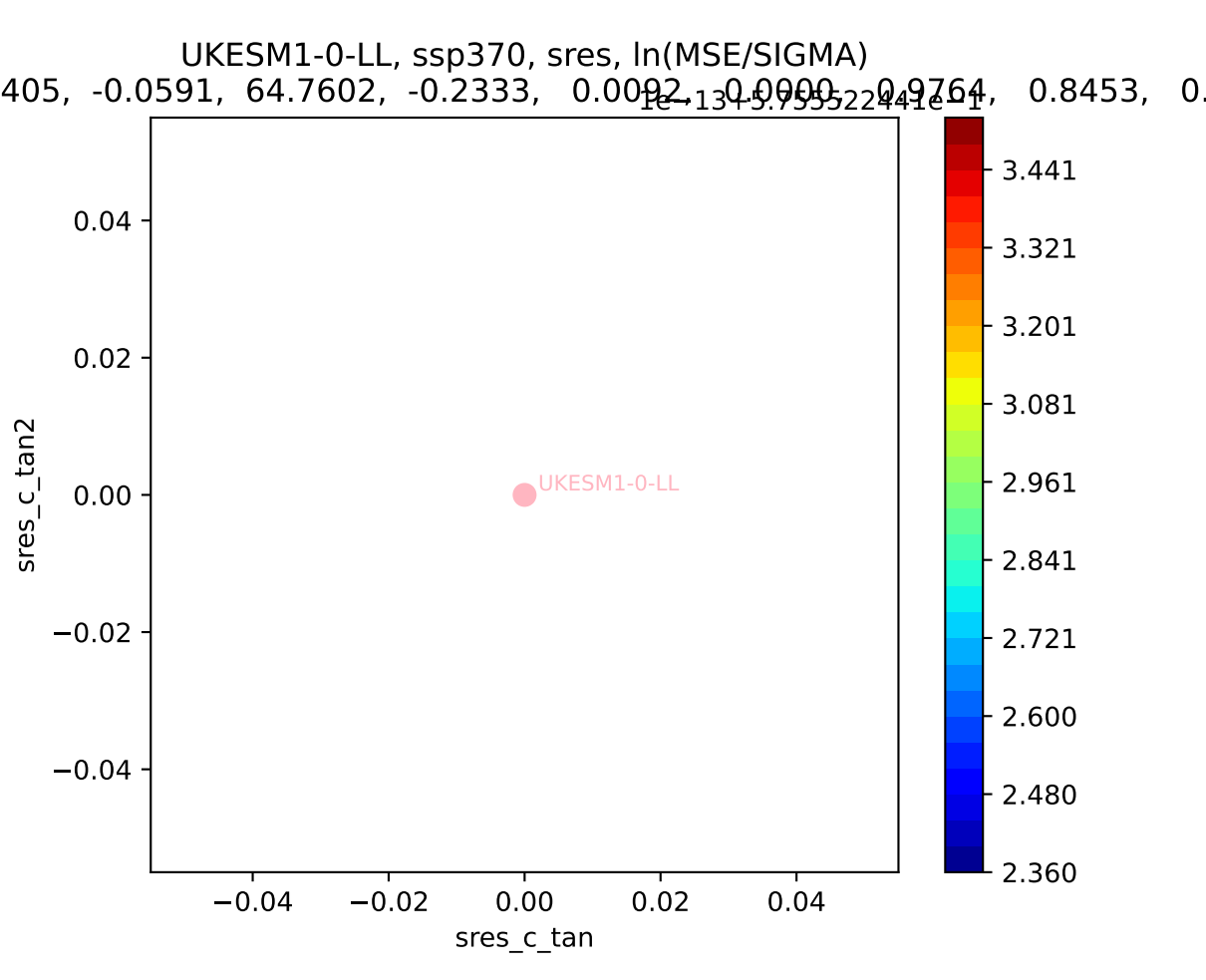

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
c_atm

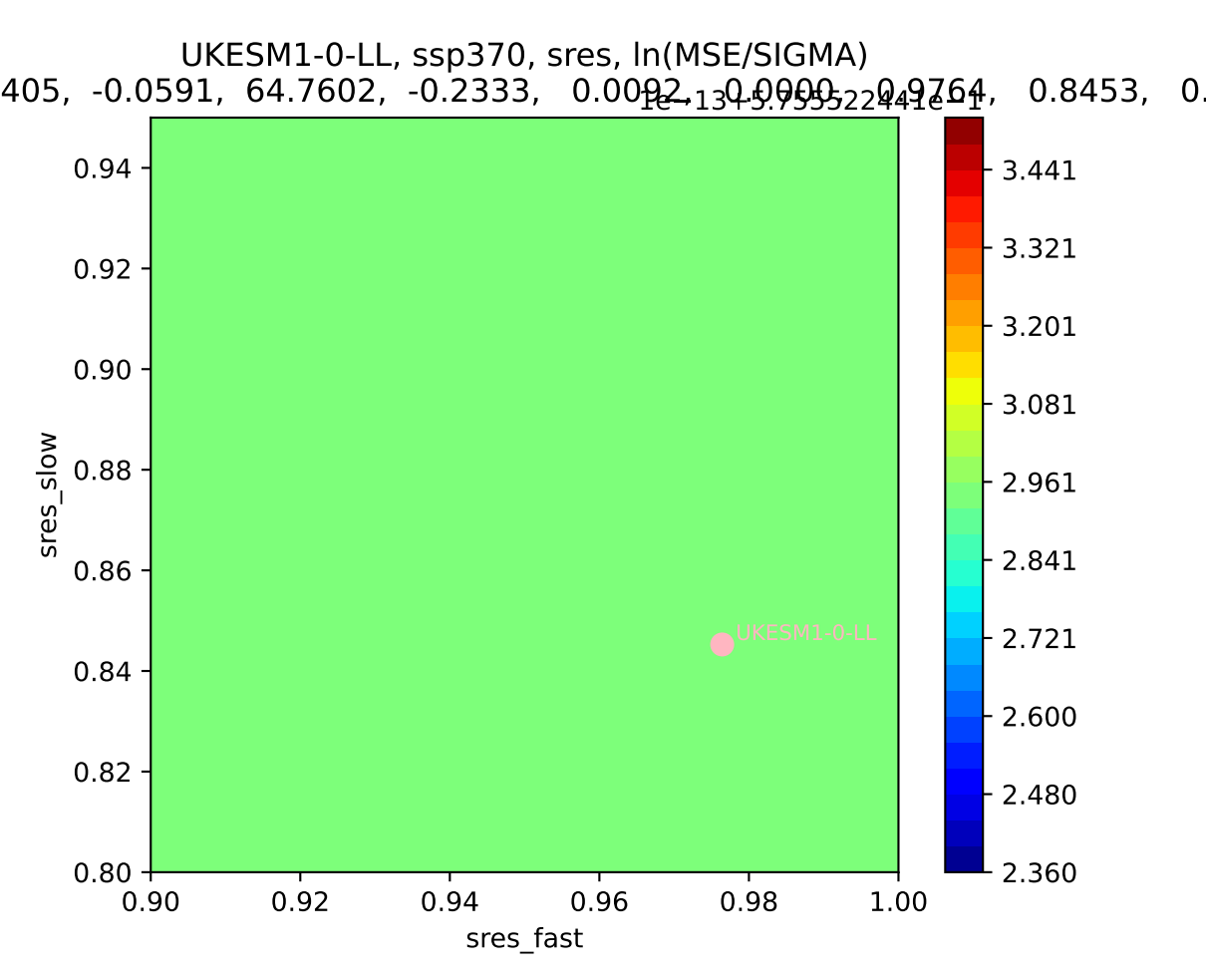

UKESM1-0-LL, ssp370, sres
ESM-Fit
sres, ESM - FIT
c_atm

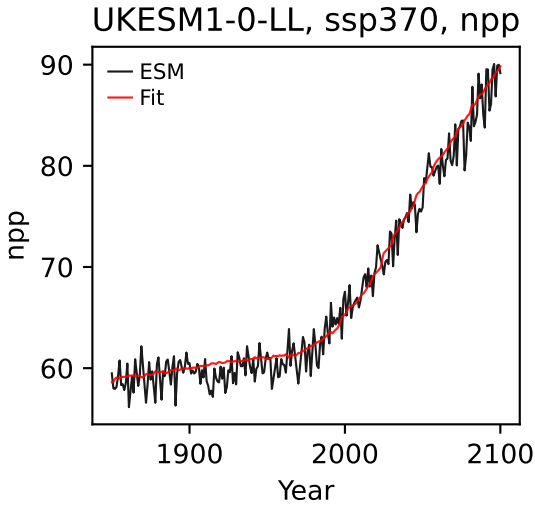

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
UKESM1-0-LL
sres_t_e
sres_t_l
−3
−2
−1
0
1
2
9.9
8.7
7.5
6.3
5.1
3.9
2.7
1.5

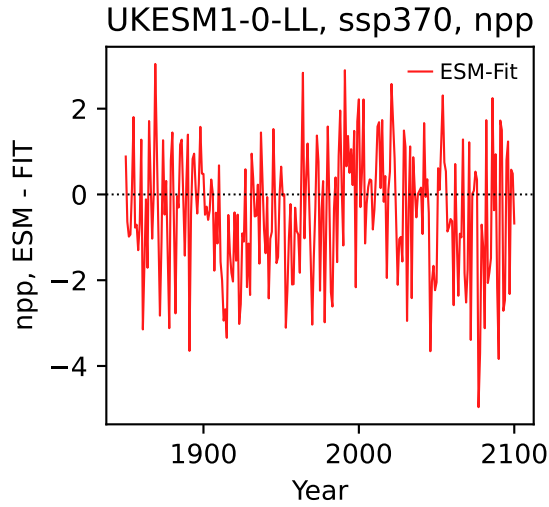

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
2000
1750
1500
1250
1000
750
500
250
0
sres_c_half
UKESM1-0-LL
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
sres_c_l
7.25
6.25
5.25
4.25
3.25
2.25
1.25
0.25

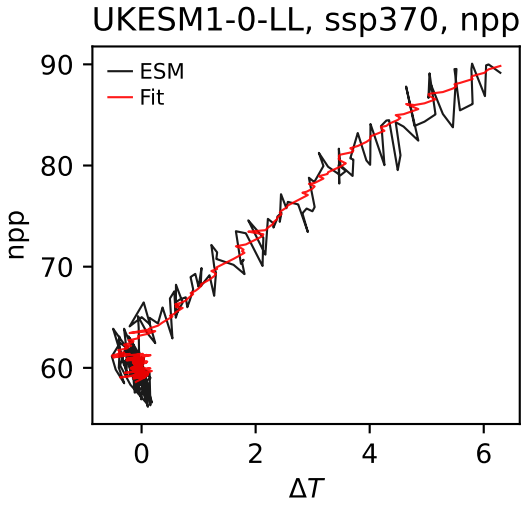

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
UKESM1-0-LL
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.25
9.25
8.25
7.25
6.25
5.25
4.25
3.25
2.25

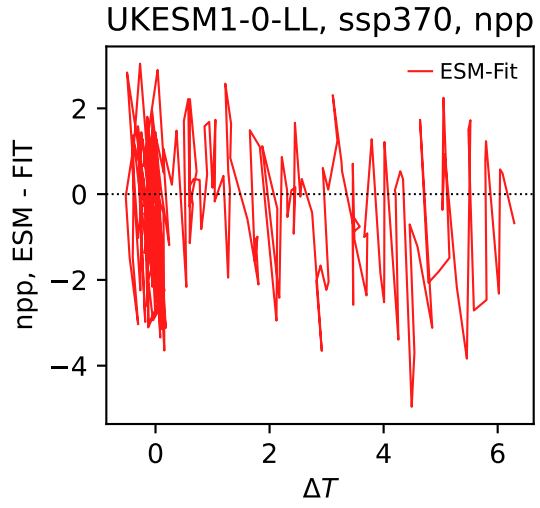

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
1e−13 +5.755522441e−1
3.441
3.321
3.201
3.081
2.961
2.841
2.721
2.600
2.480
2.360
UKESM1-0-LL
0.04
0.02
0.00
−0.02
−0.04
sres_c_tan2
−0.04
−0.02
0.00
0.02
0.04
sres_c_tan

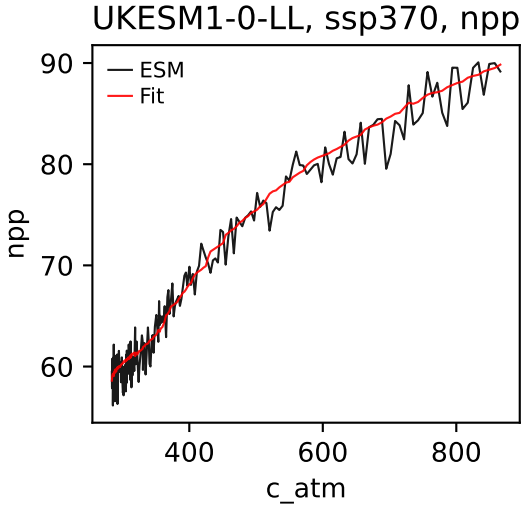

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
1e−13+5.755522441e−1
3.441
3.321
3.201
3.081
2.961
2.841
2.721
2.600
2.480
2.360
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
sres_slow
UKESM1-0-LL
0.90
0.92
0.94
0.96
0.98
1.00
sres_fast

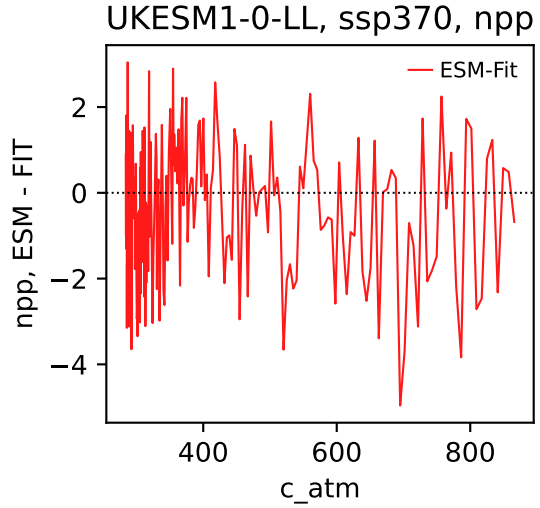

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
Year

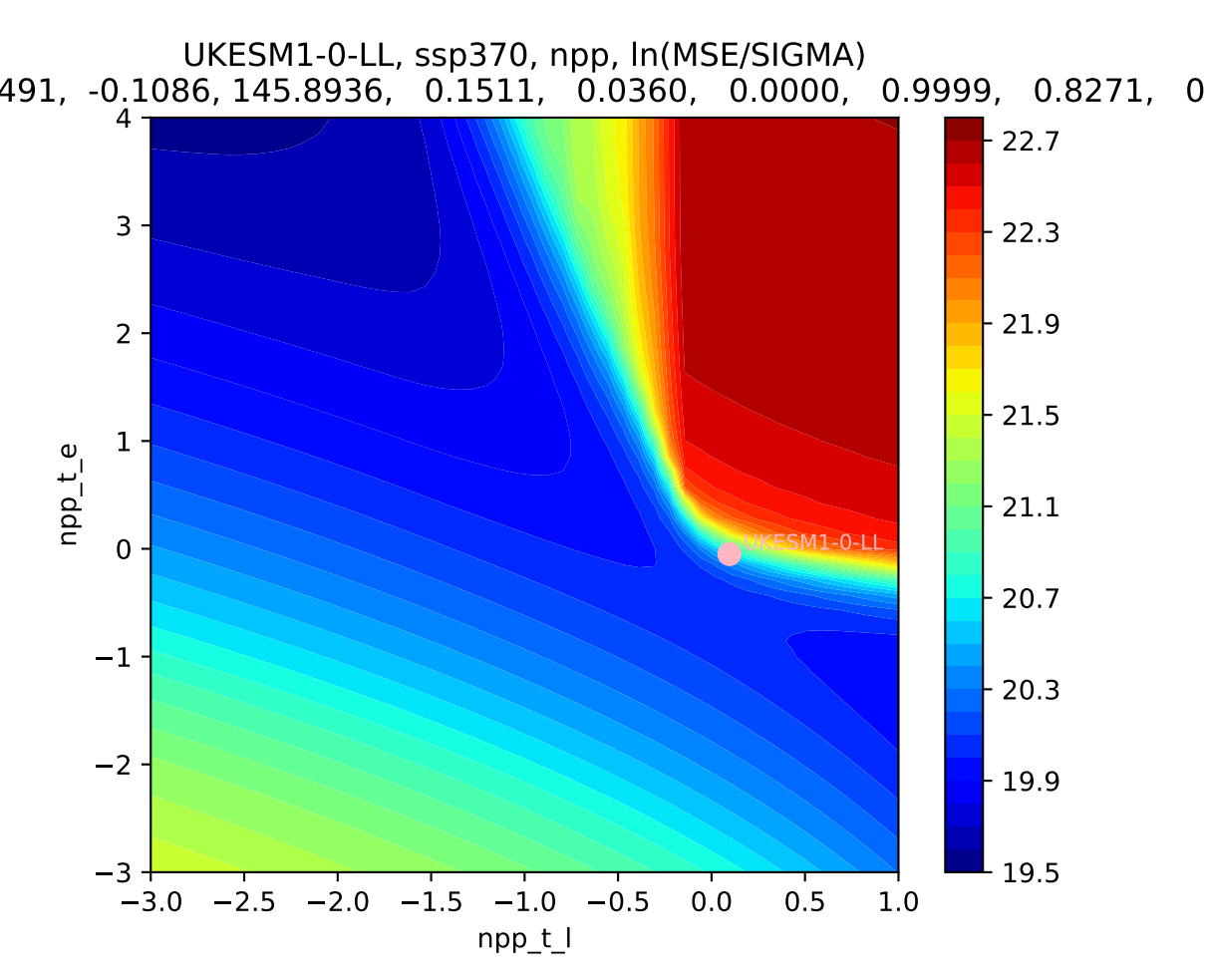

UKESM1-0-LL, ssp370, npp
ESM-Fit
npp, ESM - FIT
Year

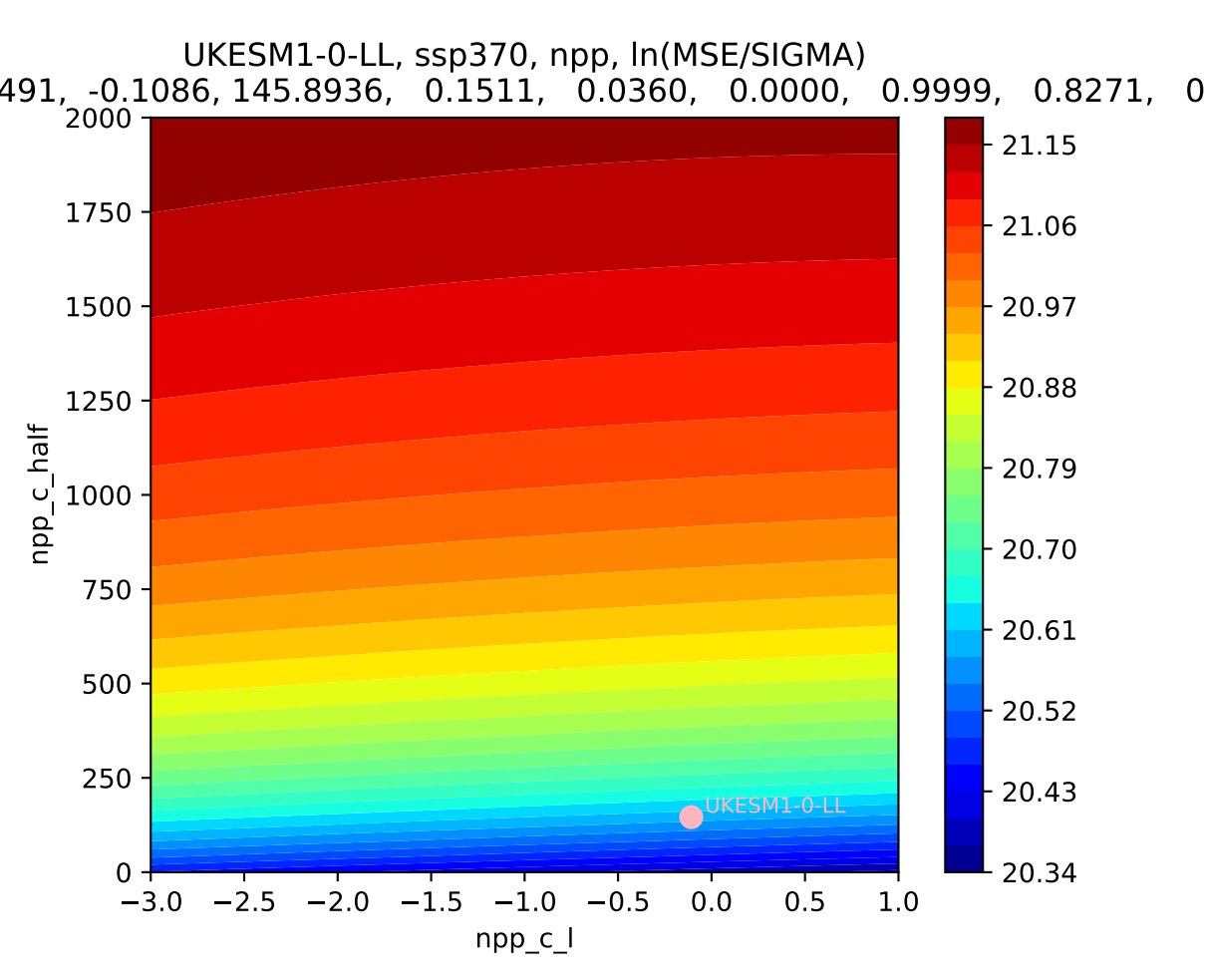

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
ΔT

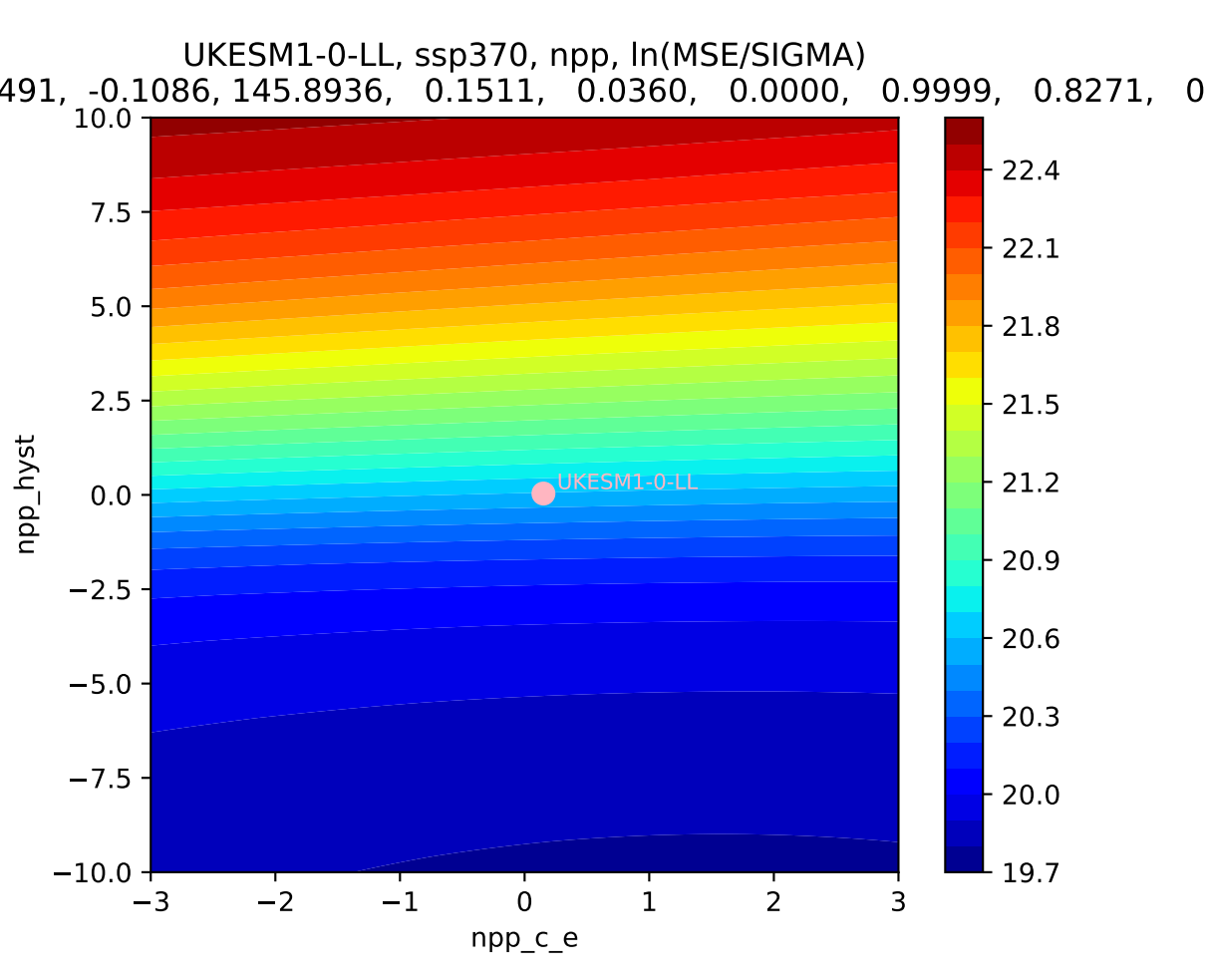

UKESM1-0-LL, ssp370, npp
ESM-Fit
npp, ESM - FIT
ΔT

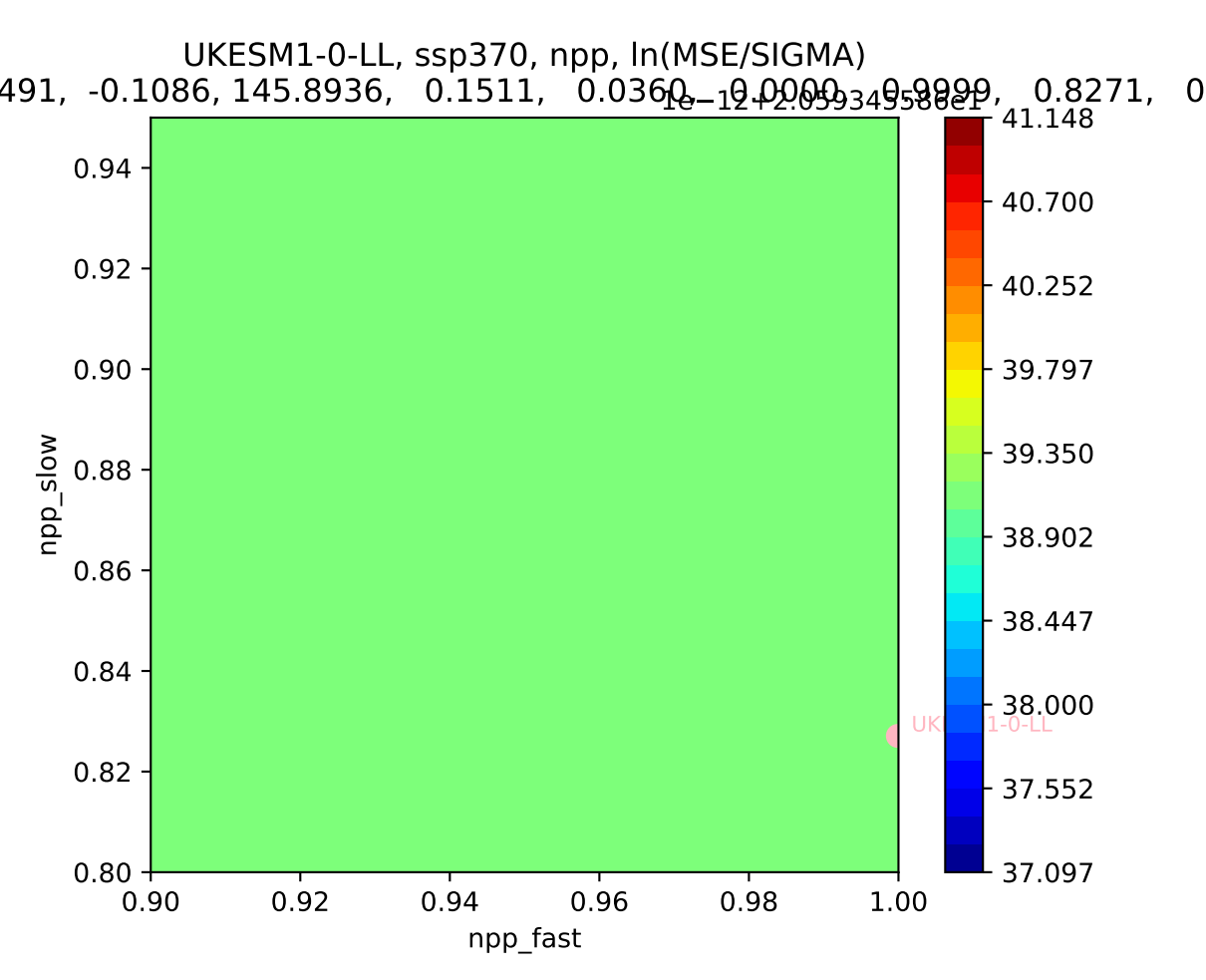

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
c_atm

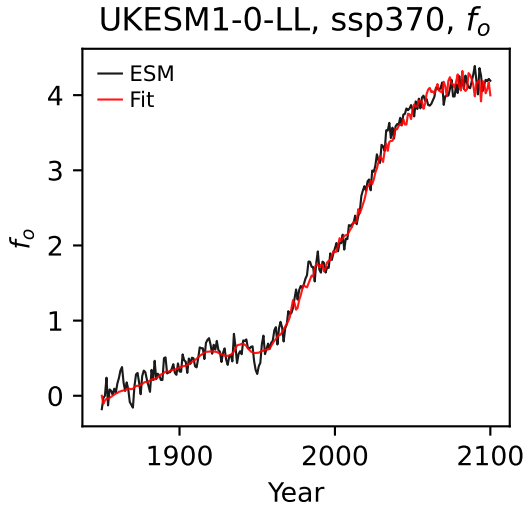

UKESM1-0-LL, ssp370, npp
ESM-Fit
npp, ESM - FIT
c_atm

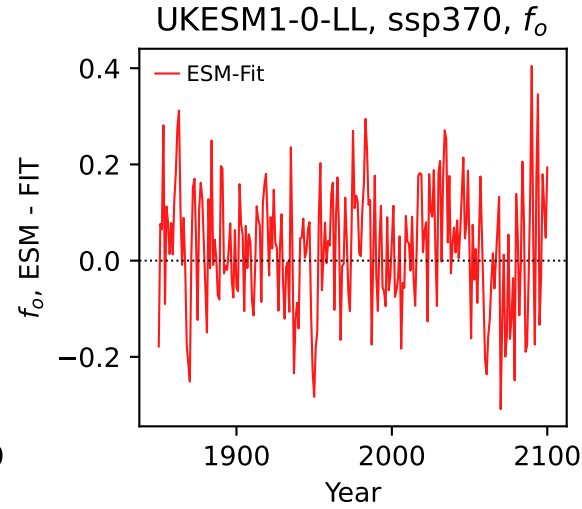

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8936, 0.1511, 0.0360, 0.0000, 0.9999, 0.8271, 0
UKESM1-0-LL
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
22.7
22.3
21.9
21.5
21.1
20.7
20.3
19.9
19.5

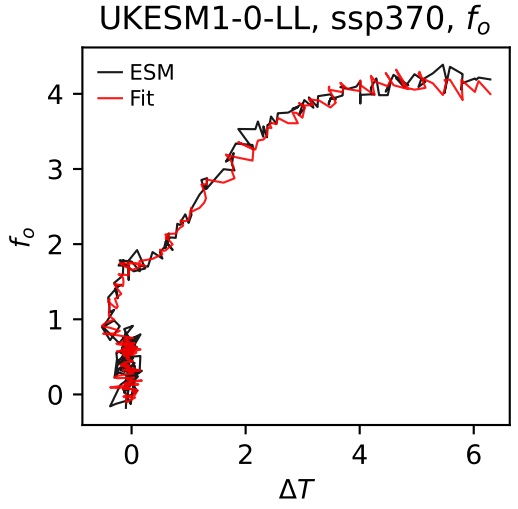

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8936, 0.1511, 0.0360, 0.0000, 0.9999, 0.8271, 0
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
npp_c_l
UKESM1-0-LL
21.15
21.06
20.97
20.88
20.79
20.70
20.61
20.52
20.43
20.34

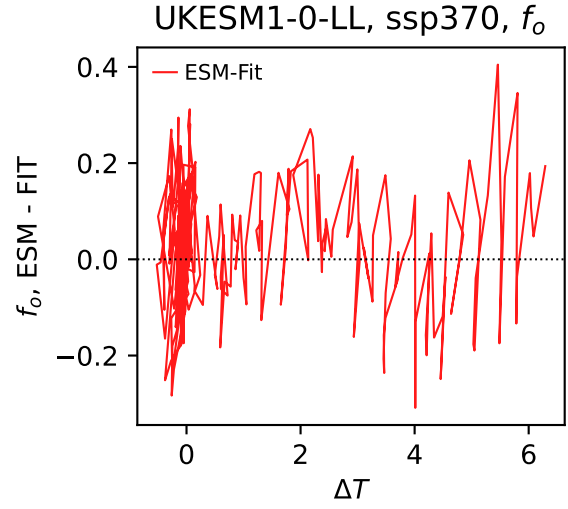

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8936, 0.1511, 0.0360, 0.0000, 0.9999, 0.8271, 0
UKESM1-0-LL
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.4
22.1
21.8
21.5
21.2
20.9
20.6
20.3
20.0
19.7

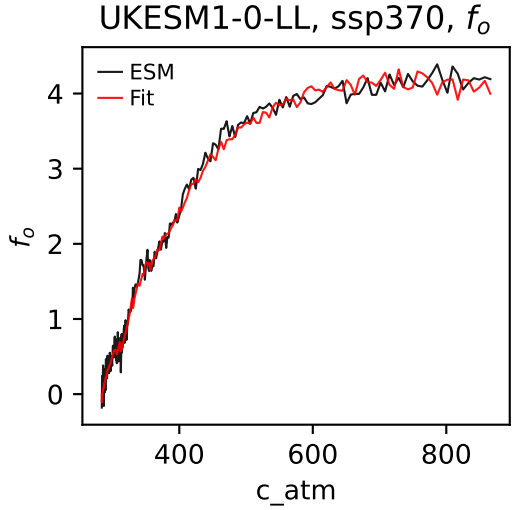

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8936, 0.1511, 0.0360, 0.0000, 0.9999, 0.8271, 0
1e−12+2.059345586e1
41.148
40.700
40.252
39.797
39.350
38.902
38.447
38.000
37.552
37.097
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
npp_slow
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast

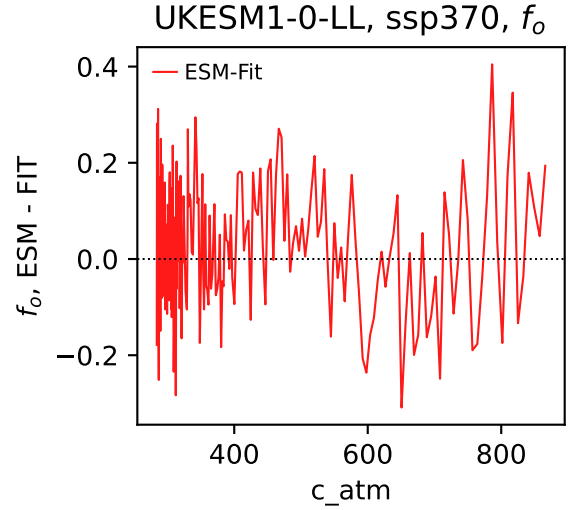

UKESM1-0-LL, ssp370, f_o
ESM
Fit
f_o
Year

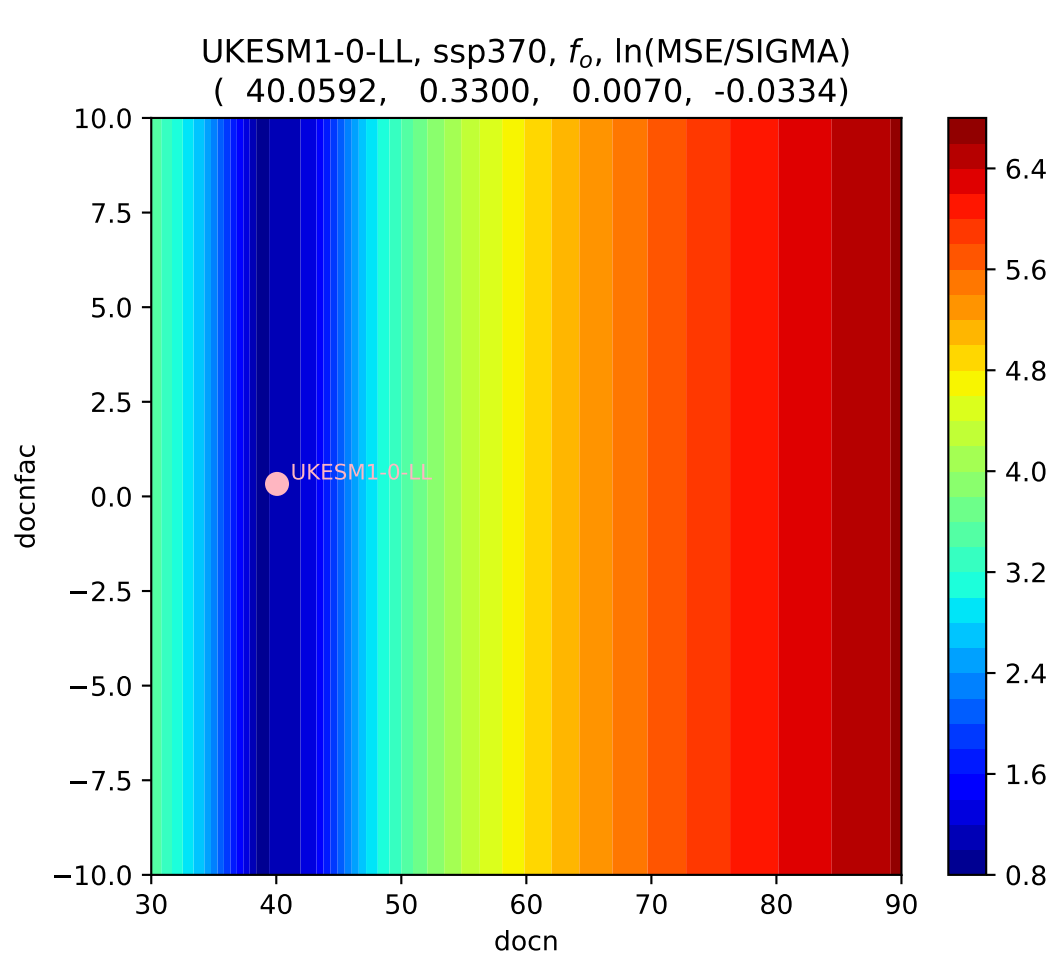

UKESM1-0-LL, ssp370, f_o
ESM-Fit
f_o, ESM - FIT
Year

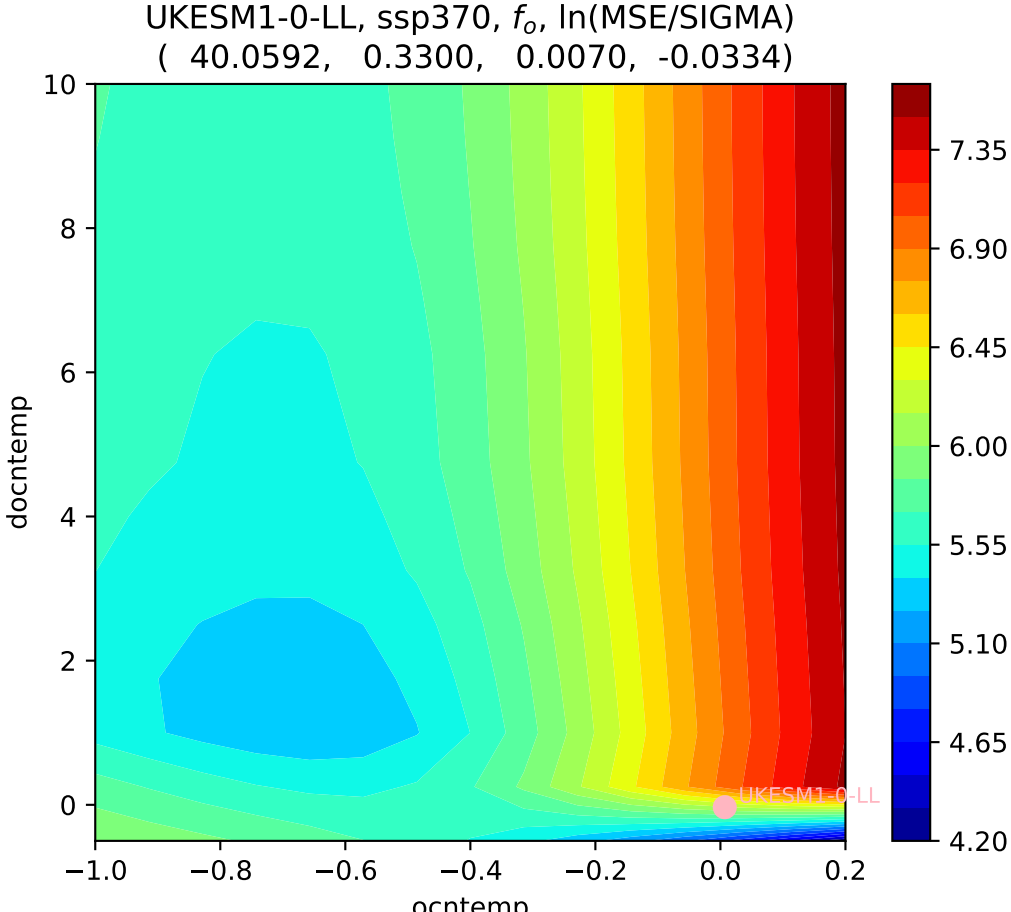

UKESM1-0-LL, ssp370, f_o
ESM
Fit
f_o
ΔT


UKESM1-0-LL, ssp370, f_o
ESM-Fit
f_o, ESM - FIT
ΔT


UKESM1-0-LL, ssp370, f_o
ESM
Fit
f_o
c_atm


UKESM1-0-LL, ssp370, f_o
ESM-Fit
f_o, ESM - FIT
c_atm


UKESM1-0-LL, ssp370, f_o, ln(MSE/SIGMA)
(40.0592, 0.3300, 0.0070, -0.0334)
UKESM1-0-LL
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
6.4
5.6
4.8
4.0
3.2
2.4
1.6
0.8


UKESM1-0-LL, ssp370, f_o, ln(MSE/SIGMA)
(40.0592, 0.3300, 0.0070, -0.0334)
docntemp
ocntemp
10
8
6
4
2
0
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
7.35
6.90
6.45
6.00
5.55
5.10
4.65
4.20
UKESM1-0-LL