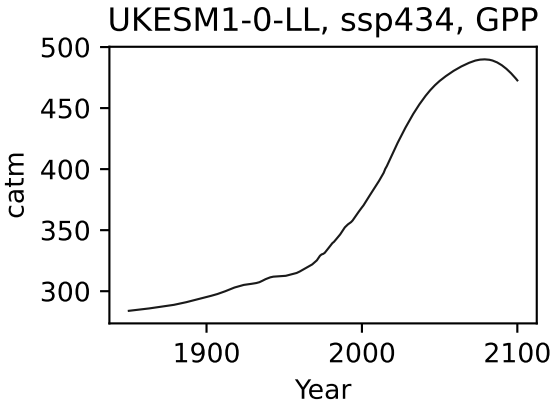
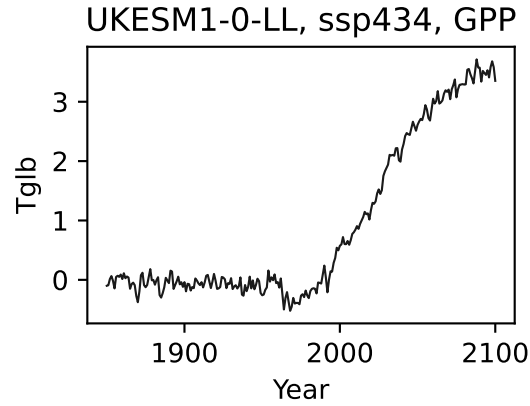
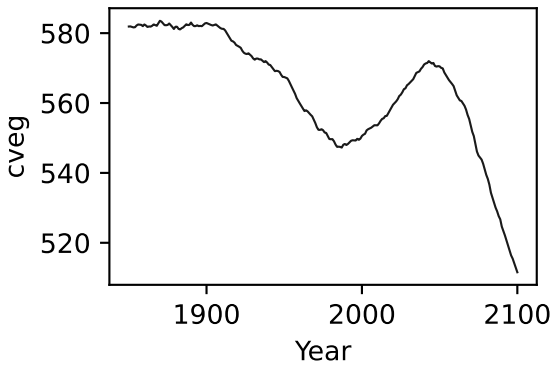
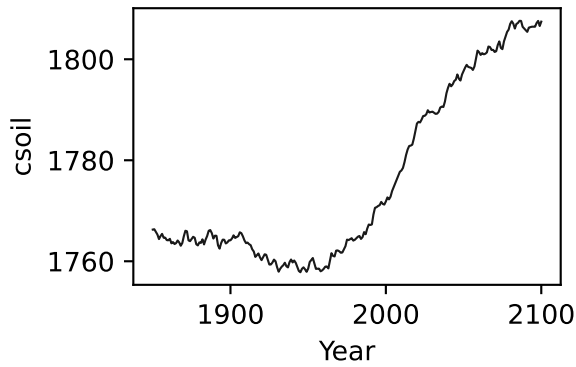
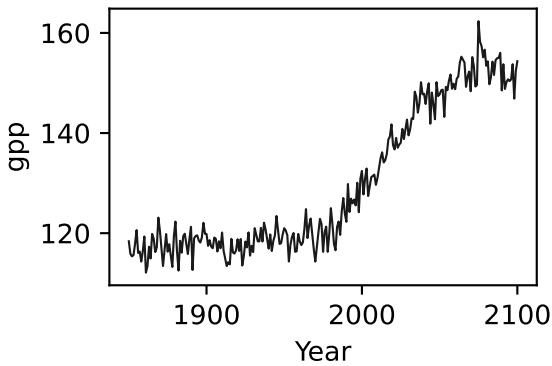
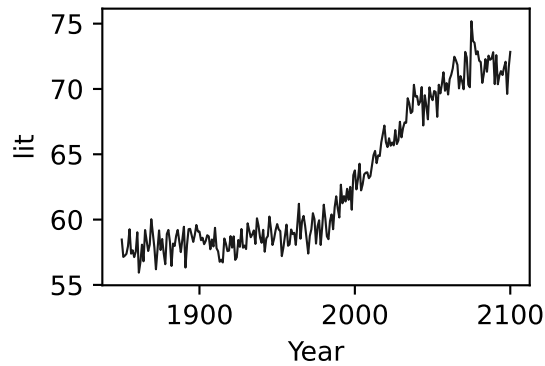

UKESM1-0-LL, ssp434, GPP
catm
500
450
400
350
300
1900
2000
2100
Year

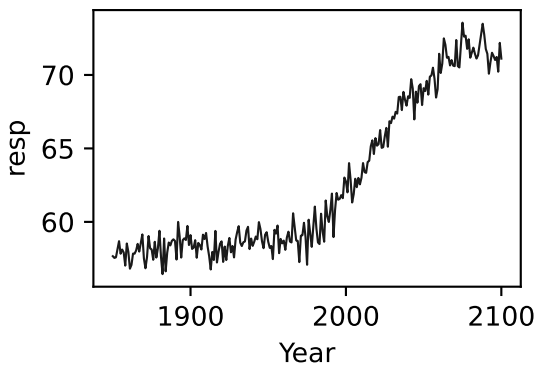

UKESM1-0-LL, ssp434, GPP
Tglb
3
2
1
0
1900
2000
2100
Year

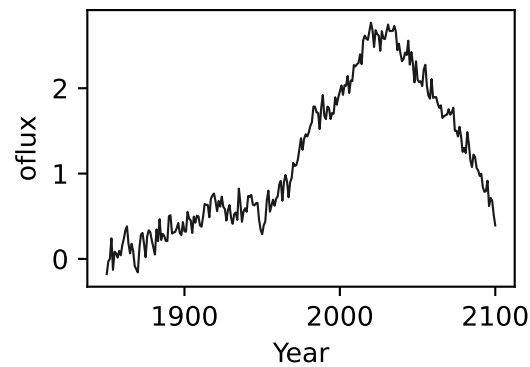

cveg
580
560
540
520
1900
2000
2100
Year

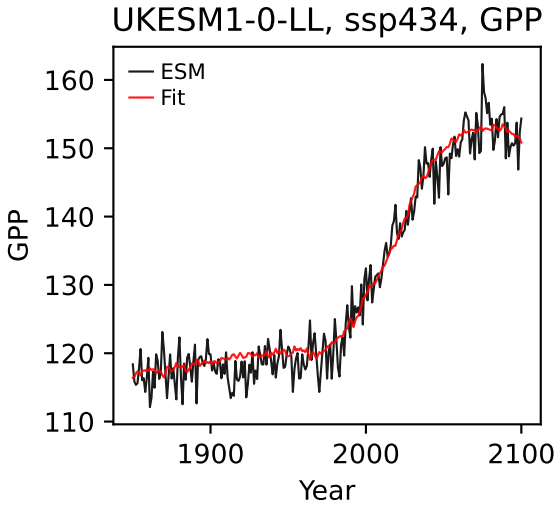

csoil
1800
1780
1760
1900
2000
2100
Year

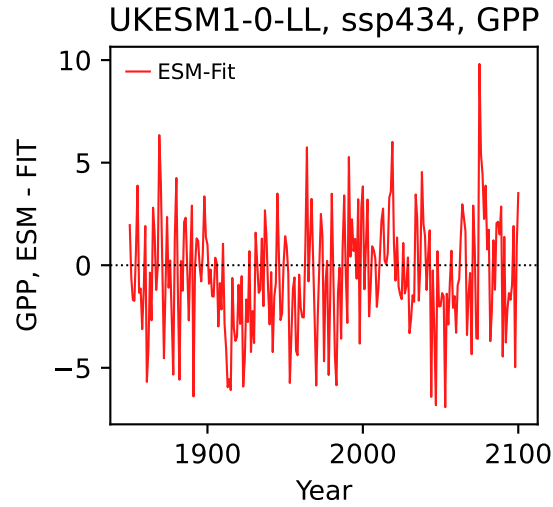

gpp
160
140
120
1900
2000
2100
Year

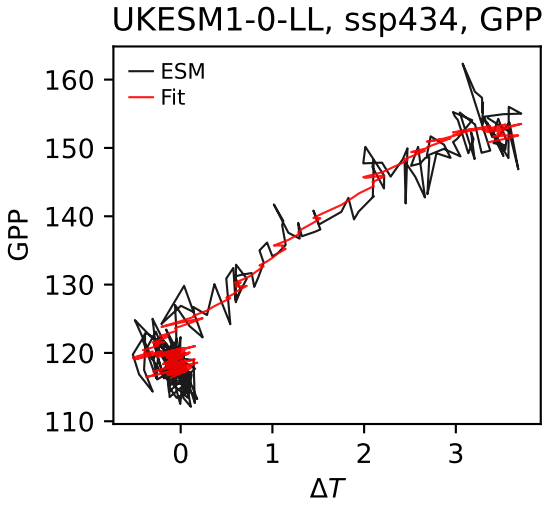

lit
75
70
65
60
55
1900
2000
2100
Year

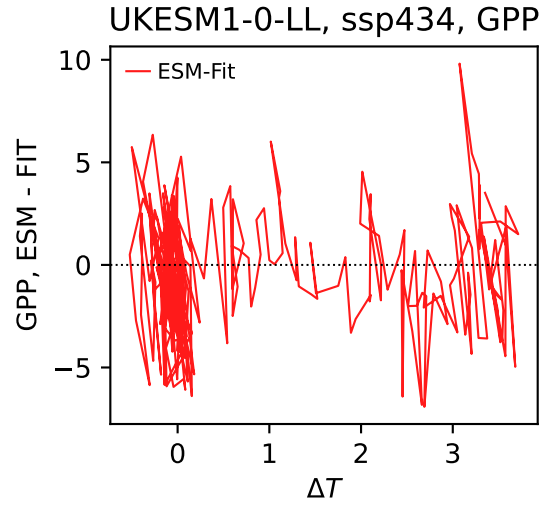

resp
70
65
60
1900
2000
2100
Year

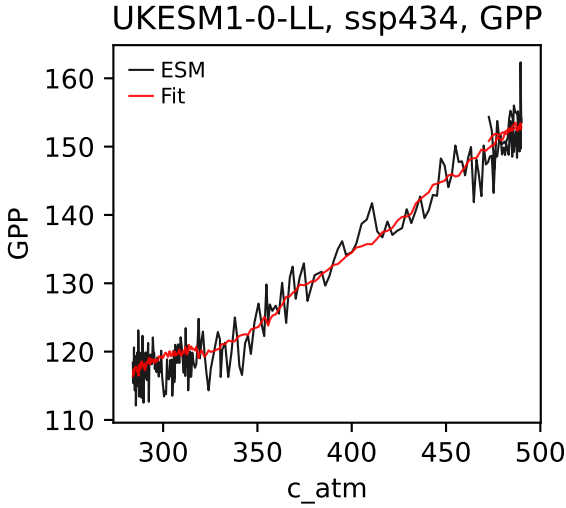

oflux
2
1
0
1900
2000
2100
Year

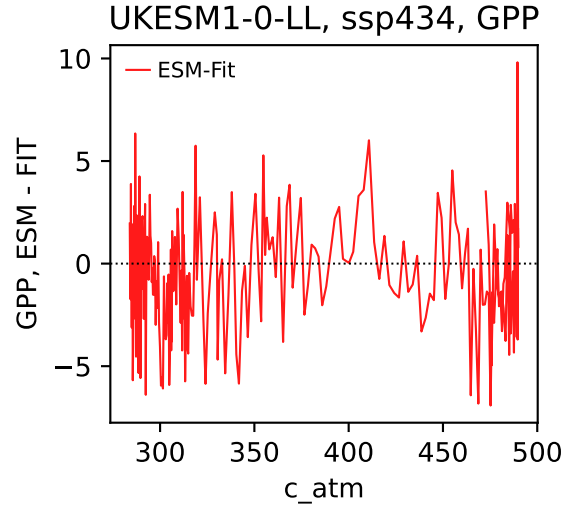

UKESM1-0-LL, ssp434, GPP
ESM
Fit
GPP
Year

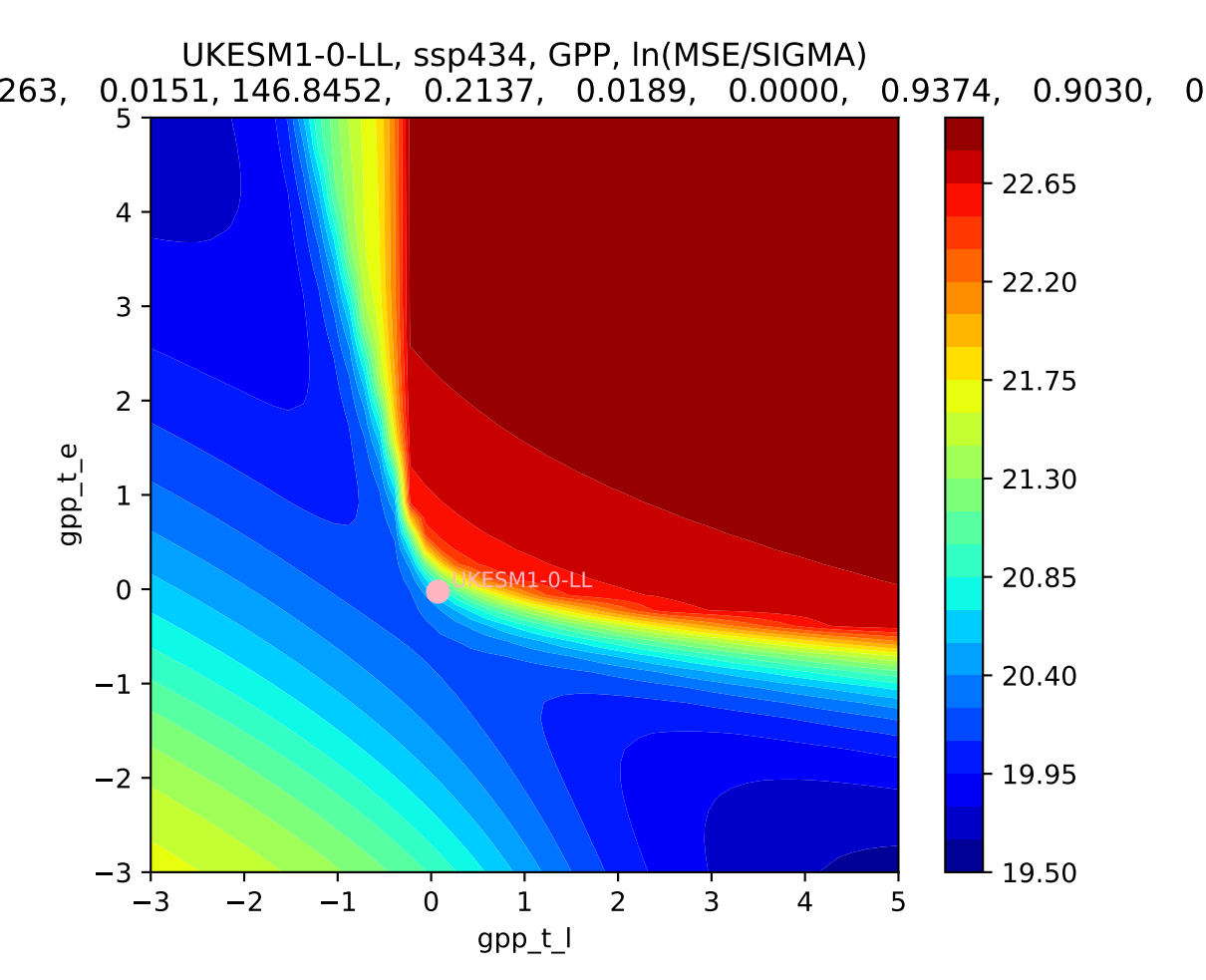

UKESM1-0-LL, ssp434, GPP
ESM-Fit
GPP, ESM - FIT
Year

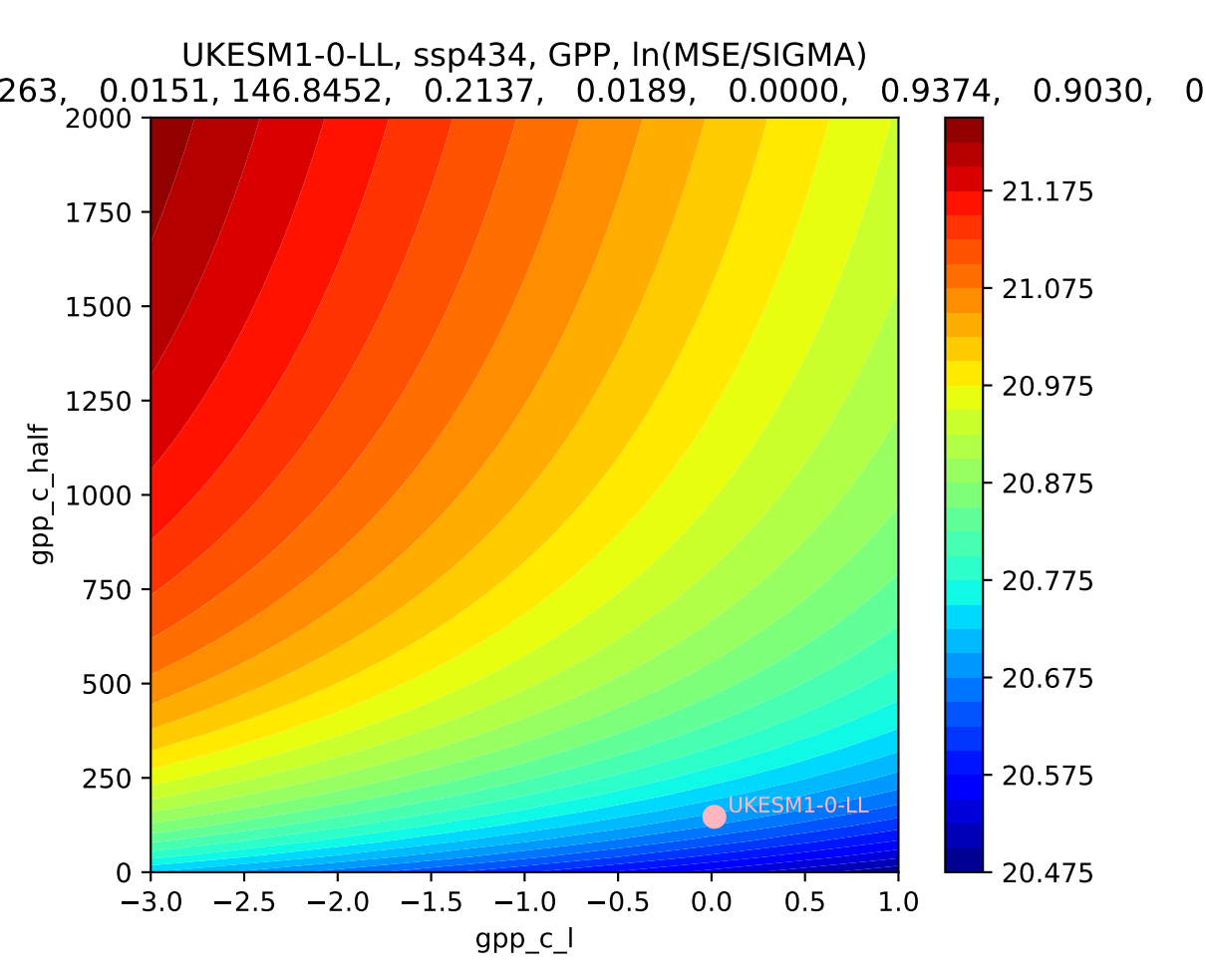

UKESM1-0-LL, ssp434, GPP
ESM
Fit
GPP
ΔT

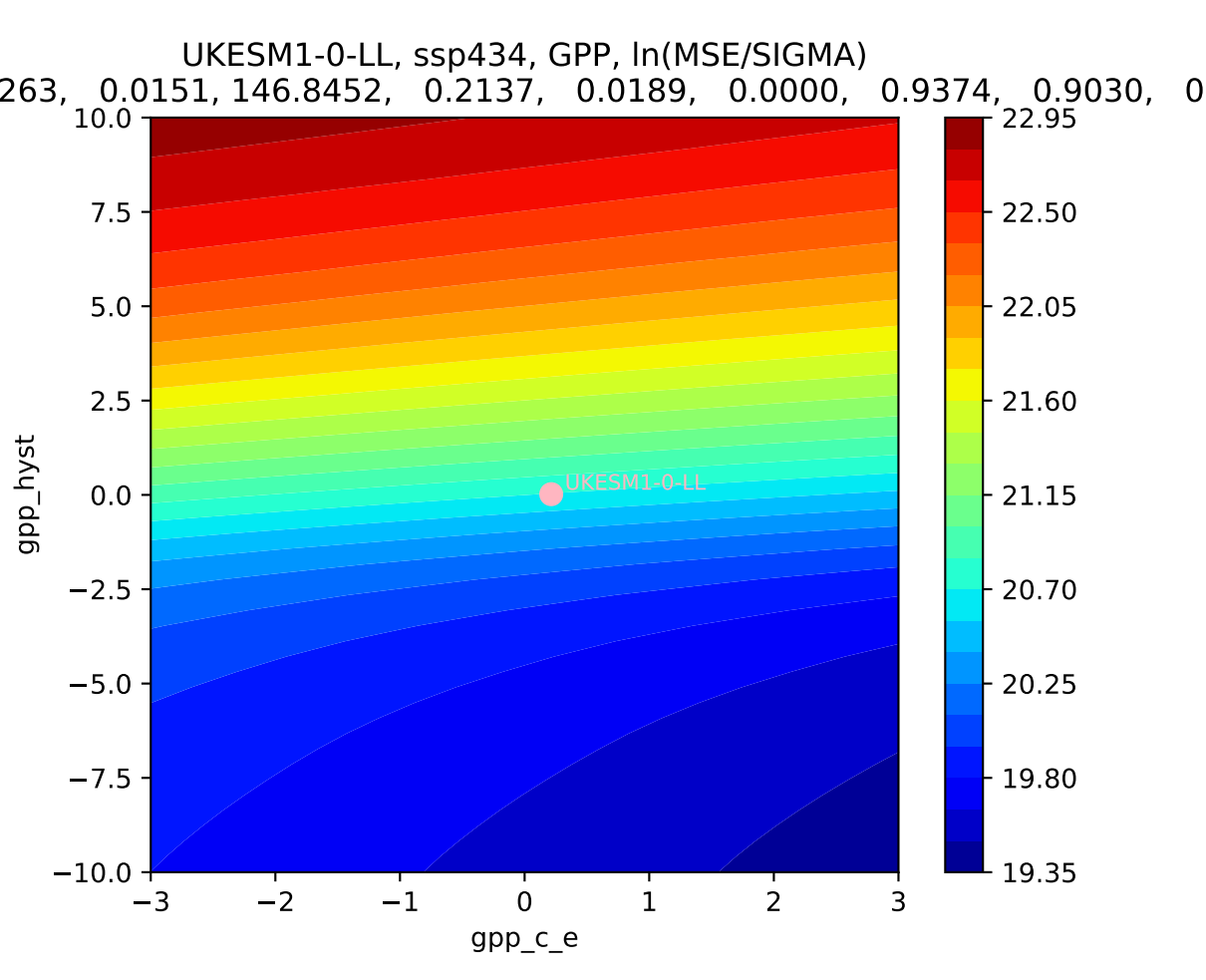

UKESM1-0-LL, ssp434, GPP
ESM-Fit
GPP, ESM - FIT
ΔT

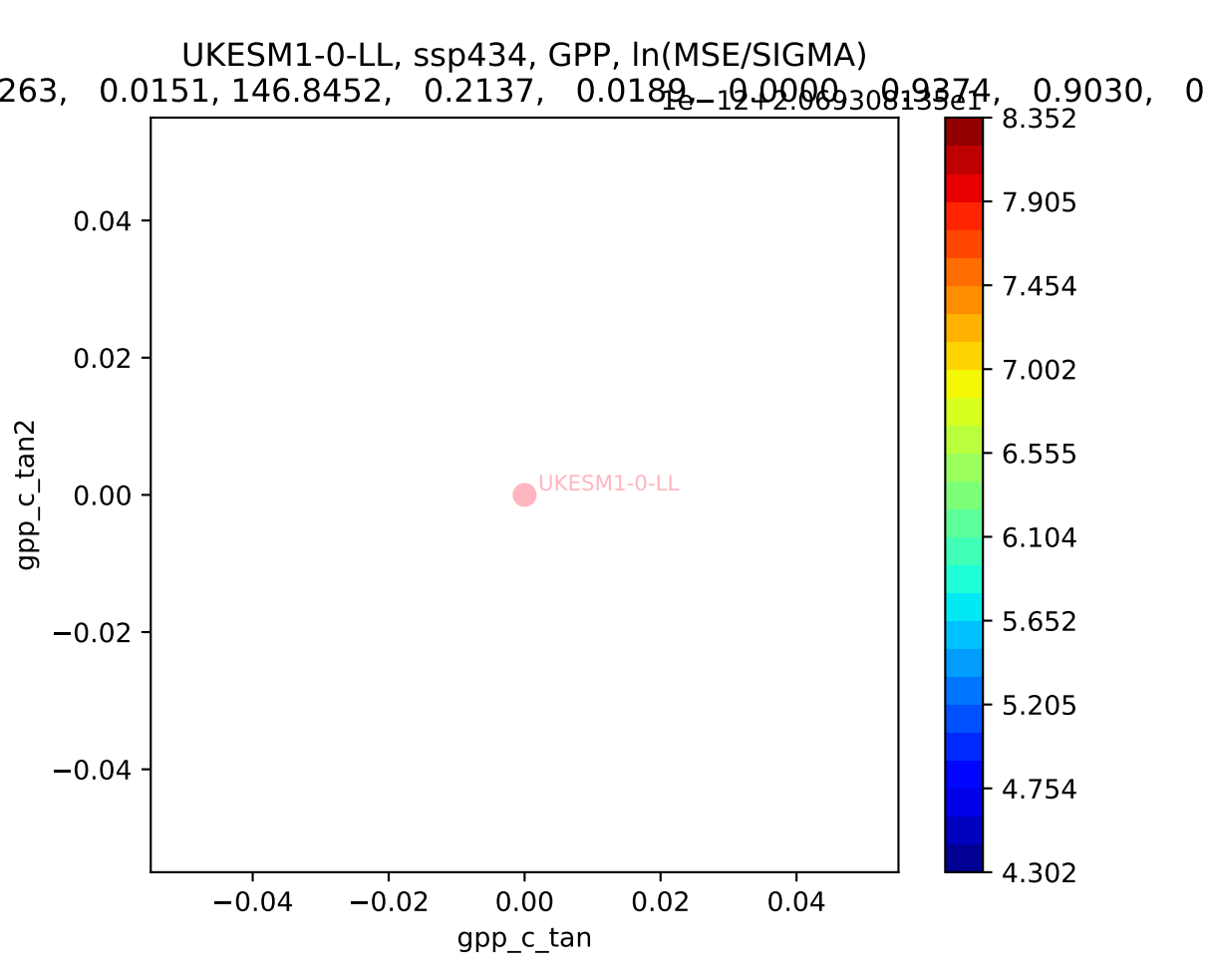

UKESM1-0-LL, ssp434, GPP
ESM
Fit
GPP
c_atm

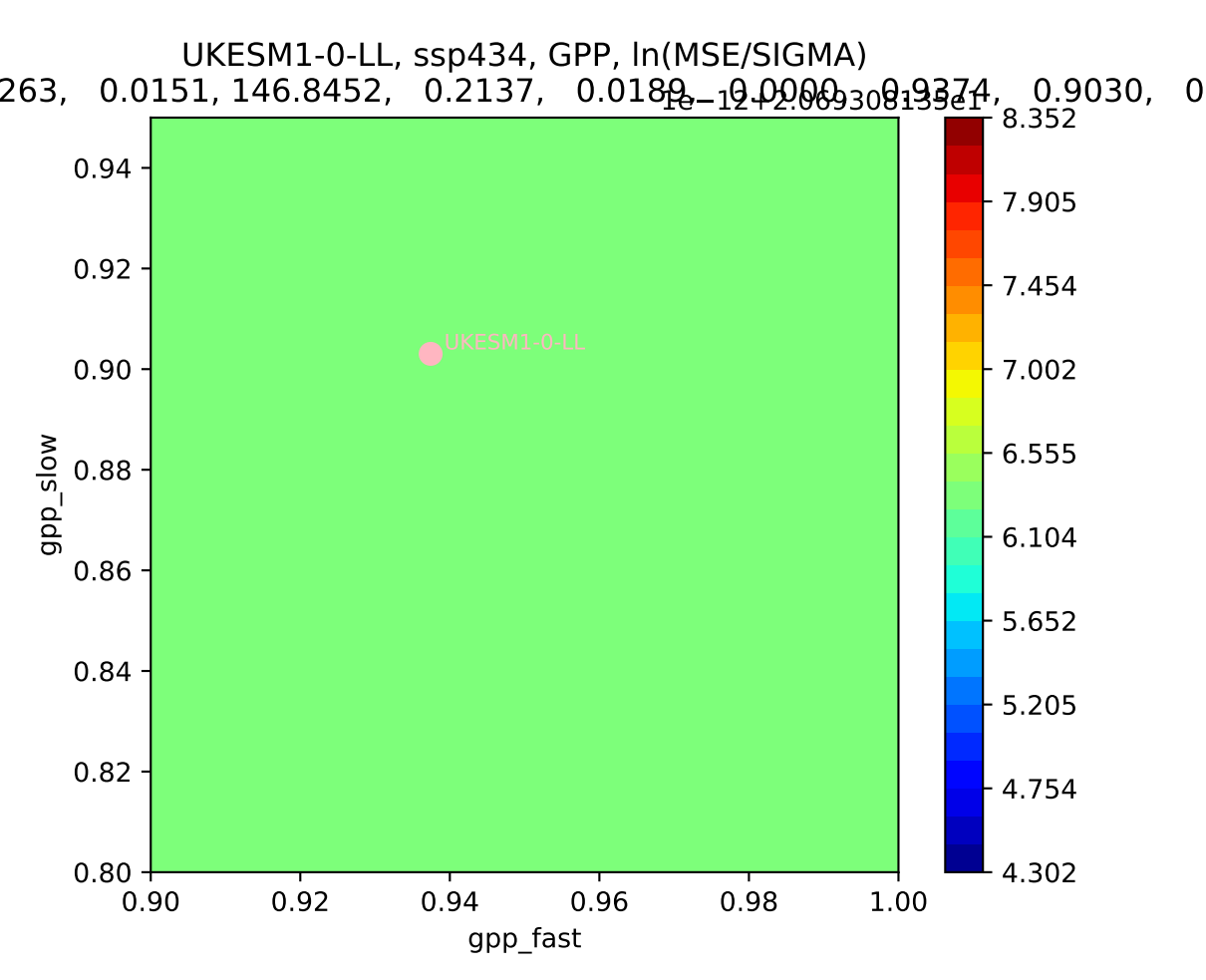

UKESM1-0-LL, ssp434, GPP
ESM-Fit
GPP, ESM - FIT
c_atm

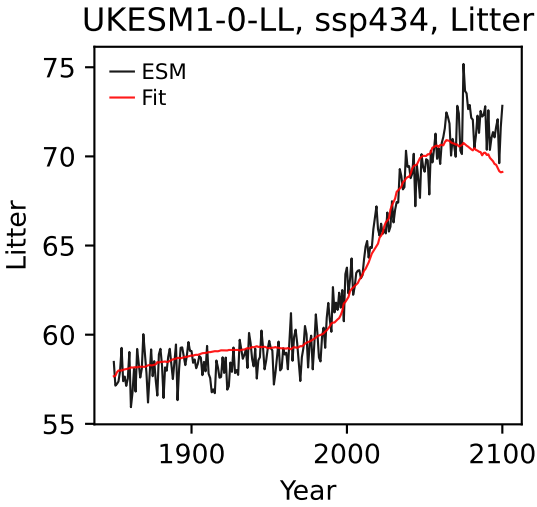

UKESM1-0-LL, ssp434, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
UKESM1-0-LL
gpp_t_e
gpp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
22.65
22.20
21.75
21.30
20.85
20.40
19.95
19.50

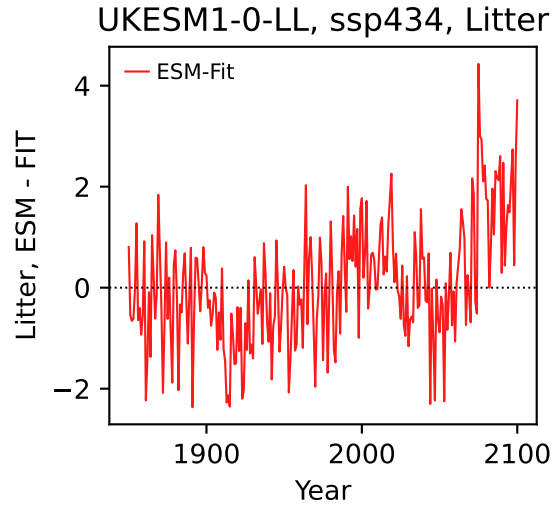

UKESM1-0-LL, ssp434, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
gpp_c_half
gpp_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
21.175
21.075
20.975
20.875
20.775
20.675
20.575
20.475

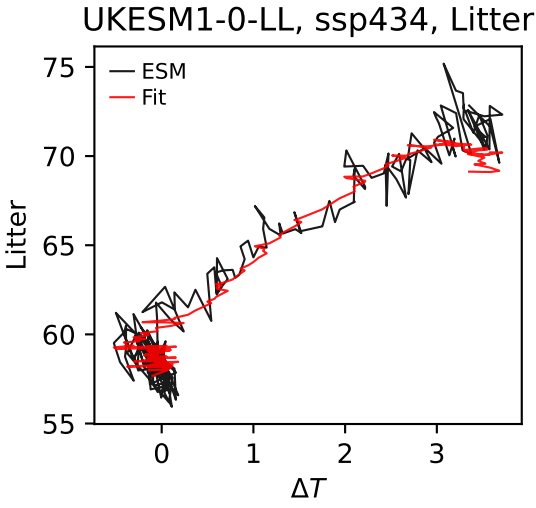

UKESM1-0-LL, ssp434, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
gpp_hyst
gpp_c_e
UKESM1-0-LL
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.95
22.50
22.05
21.60
21.15
20.70
20.25
19.80
19.35

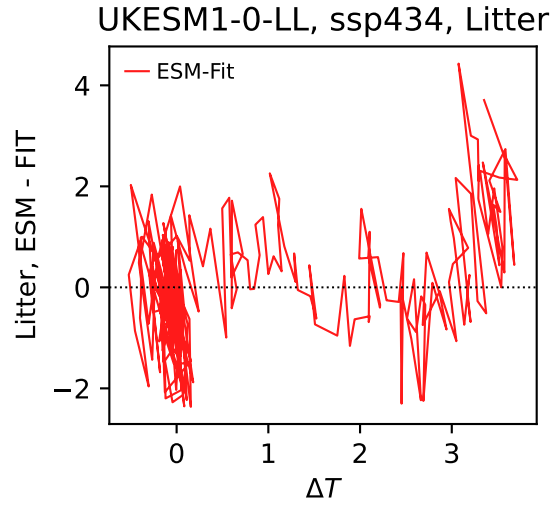

UKESM1-0-LL, ssp434, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
1e−12+2.069308135e1
8.352
7.905
7.454
7.002
6.555
6.104
5.652
5.205
4.754
4.302
0.04
0.02
0.00
−0.02
−0.04
gpp_c_tan2
UKESM1-0-LL
−0.04
−0.02
0.00
0.02
0.04
gpp_c_tan

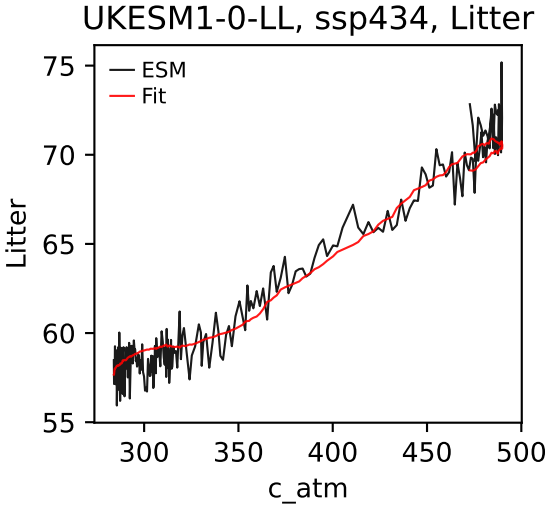

UKESM1-0-LL, ssp434, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8452, 0.2137, 0.0189, 0.0000, 0.9374, 0.9030, 0
1e−12+2.069308135e1
UKESM1-0-LL
gpp_slow
gpp_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
8.352
7.905
7.454
7.002
6.555
6.104
5.652
5.205
4.754
4.302

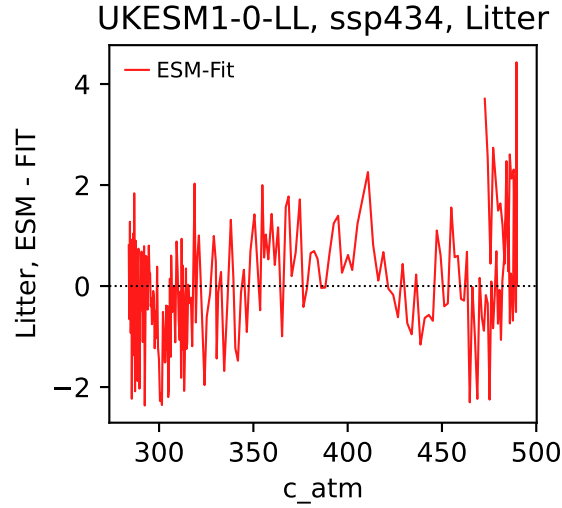

UKESM1-0-LL, ssp434, Litter
ESM
Fit
Litter
Year

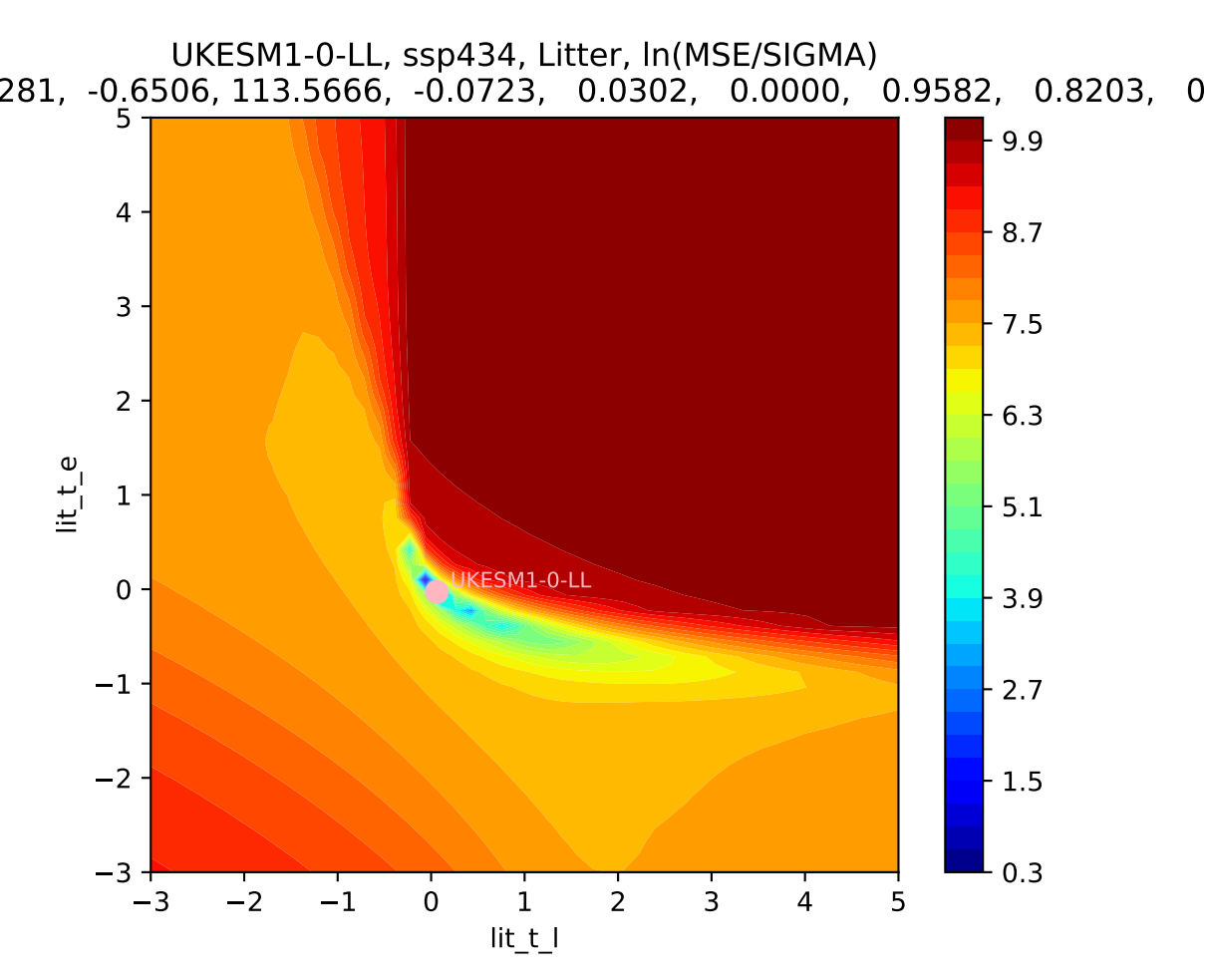

UKESM1-0-LL, ssp434, Litter
ESM-Fit
Litter, ESM - FIT
Year

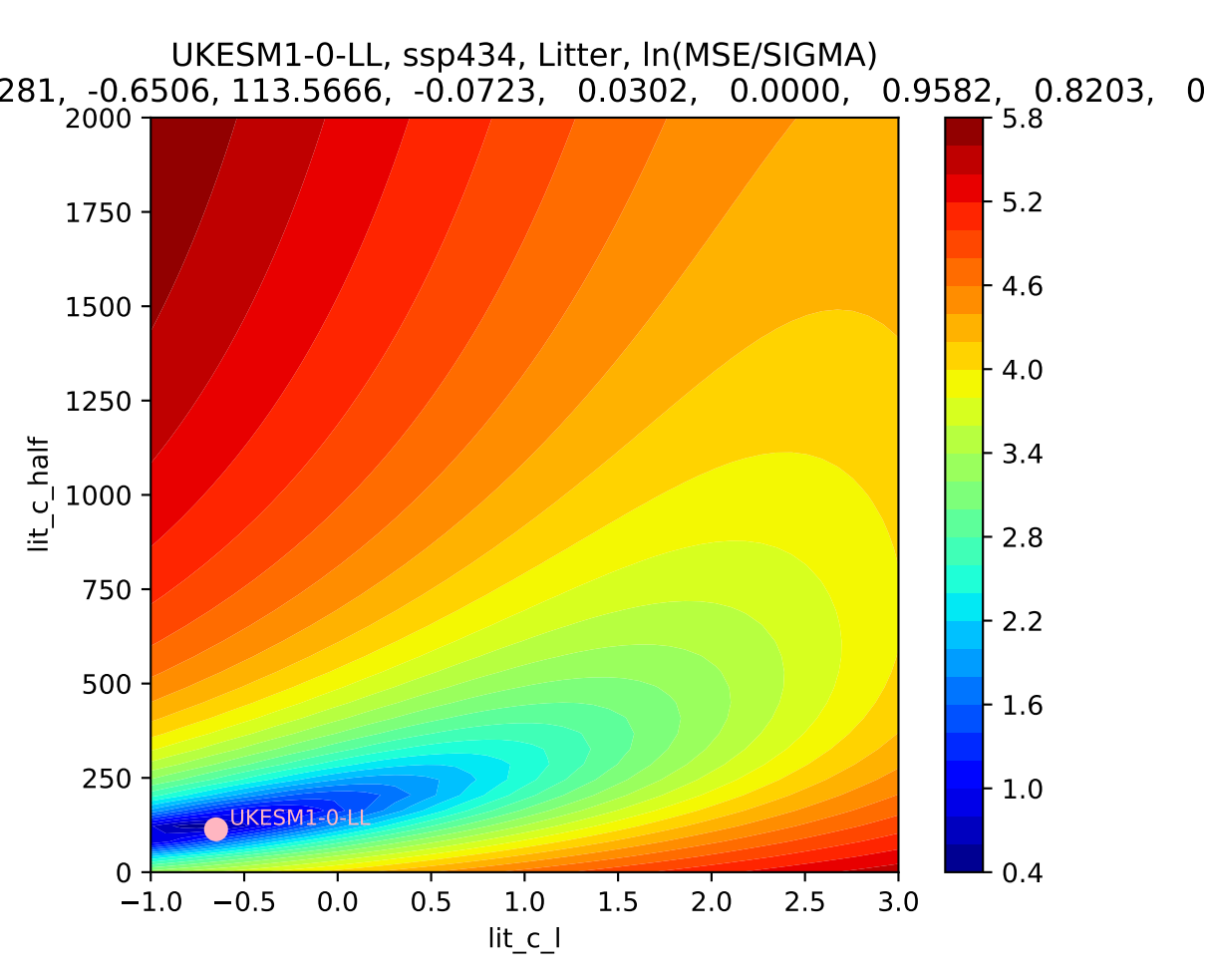

UKESM1-0-LL, ssp434, Litter
ESM
Fit
Litter
ΔT

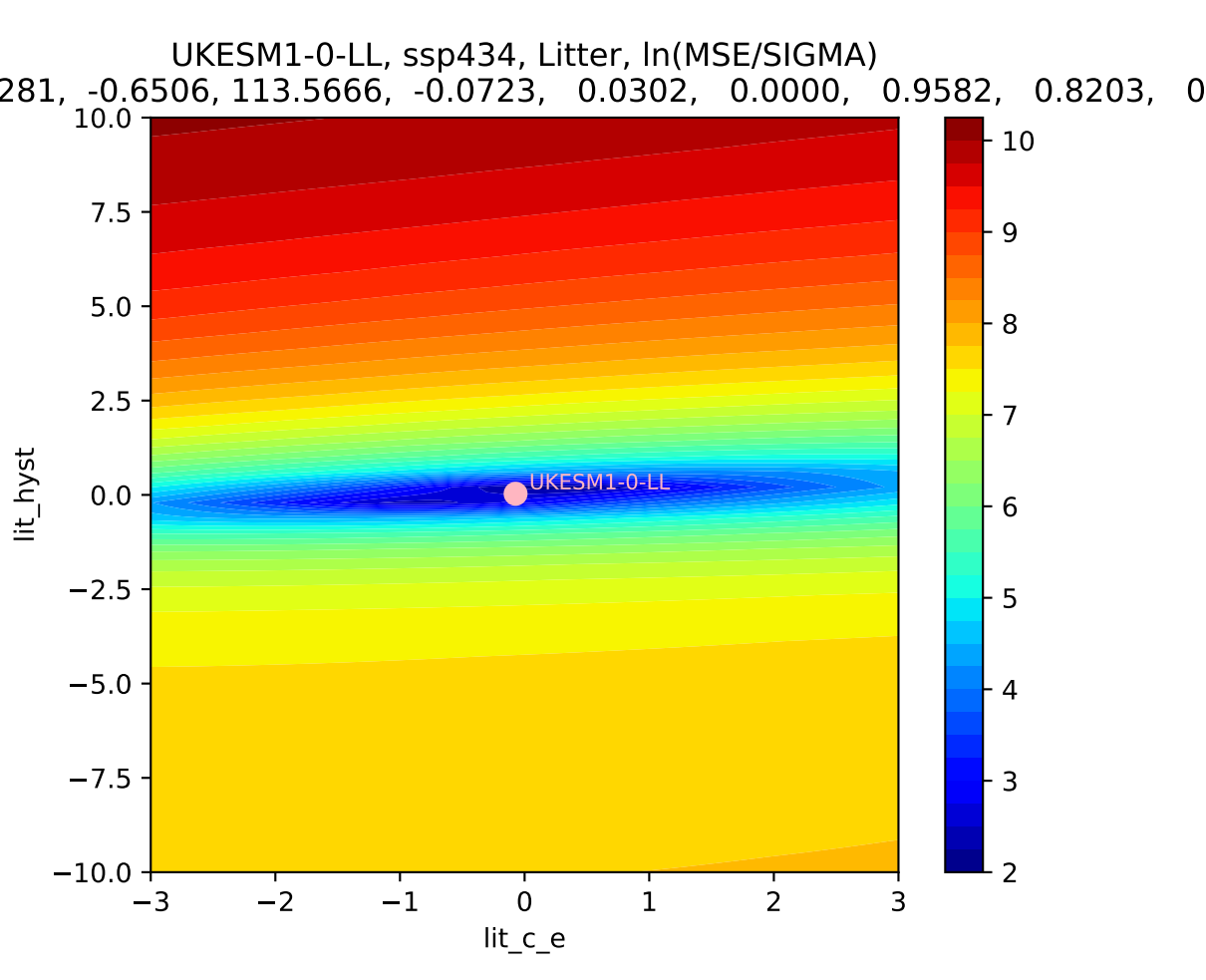

UKESM1-0-LL, ssp434, Litter
ESM-Fit
Litter, ESM - FIT
ΔT

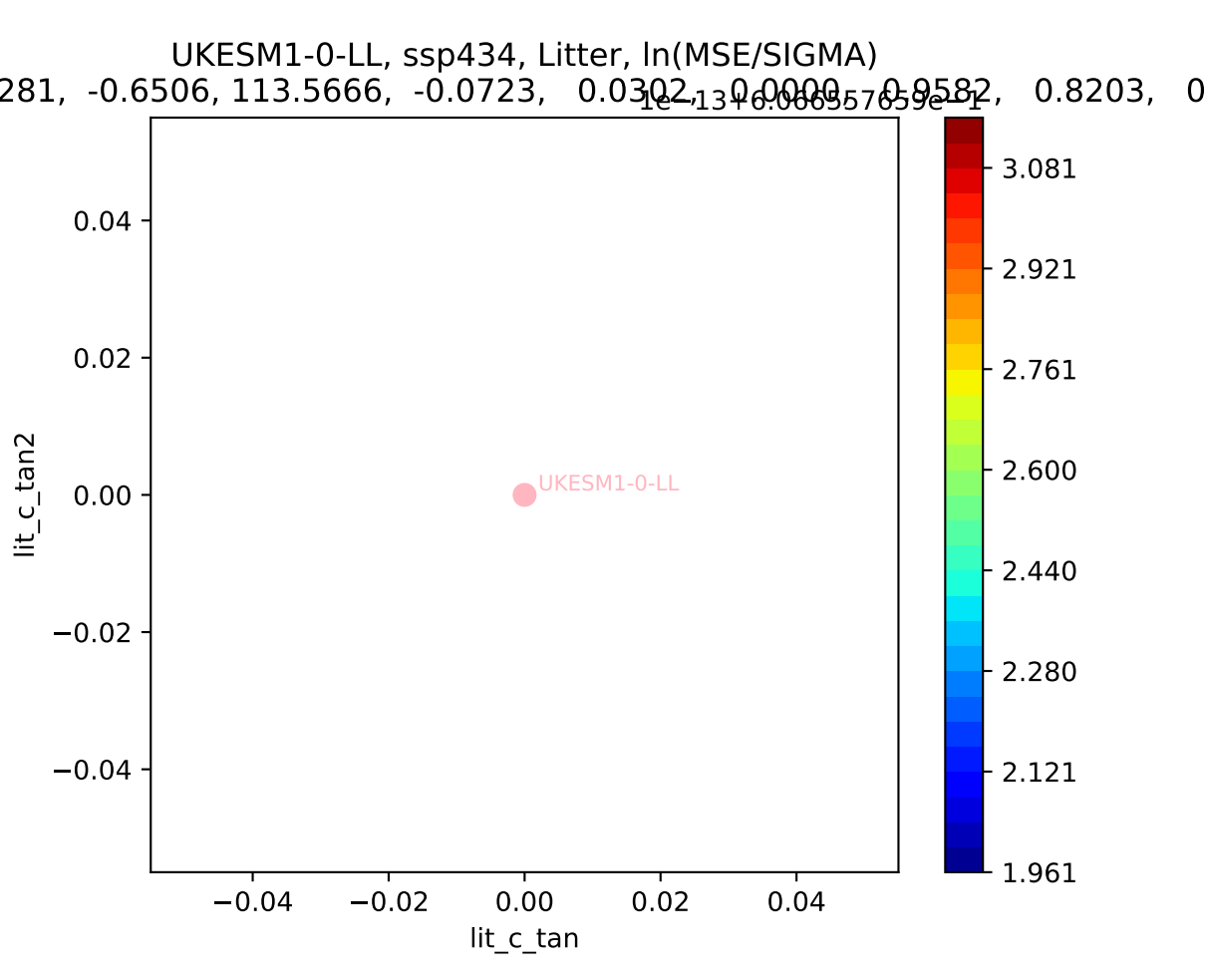

UKESM1-0-LL, ssp434, Litter
ESM
Fit
Litter
c_atm

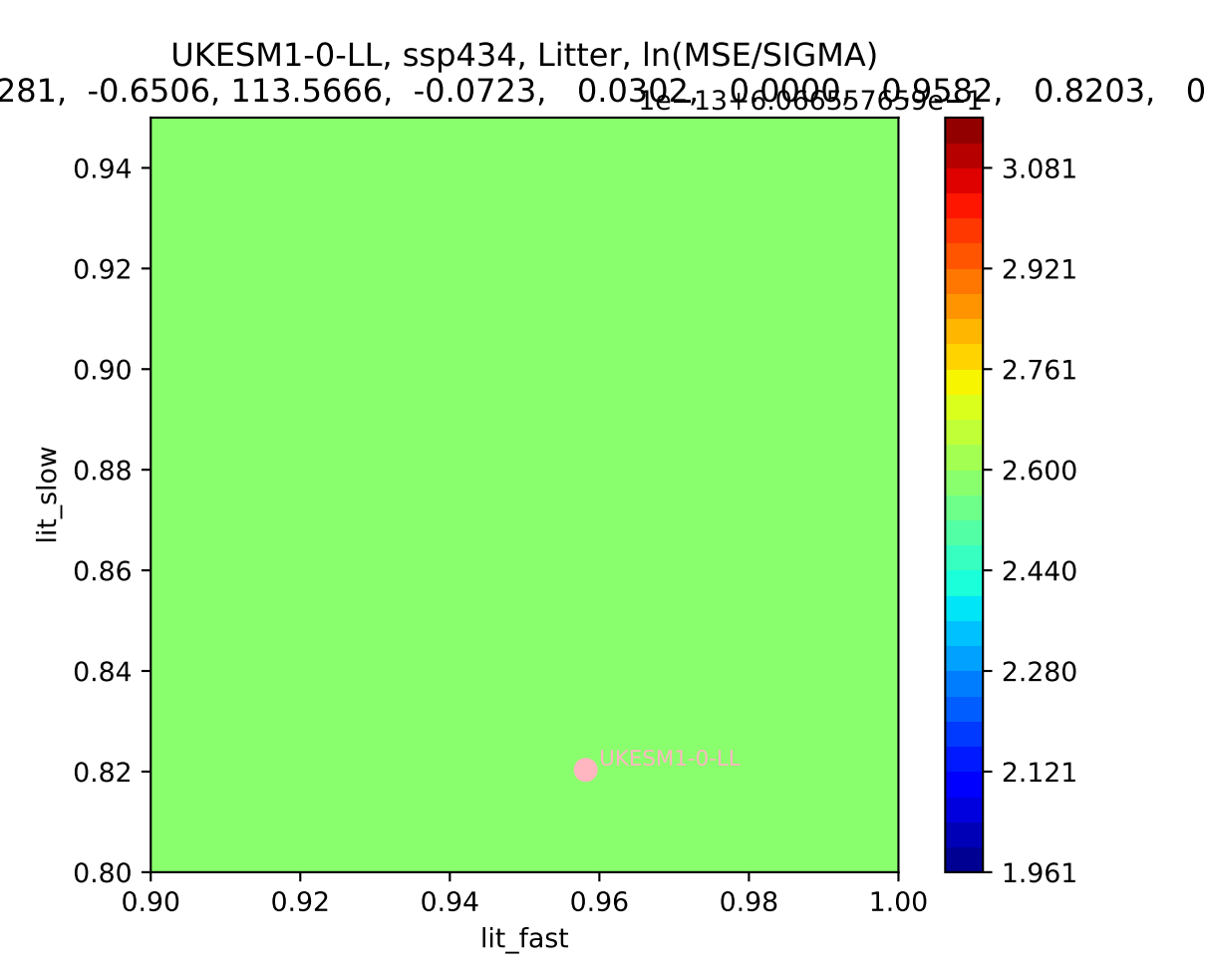

UKESM1-0-LL, ssp434, Litter
ESM-Fit
Litter, ESM - FIT
c_atm

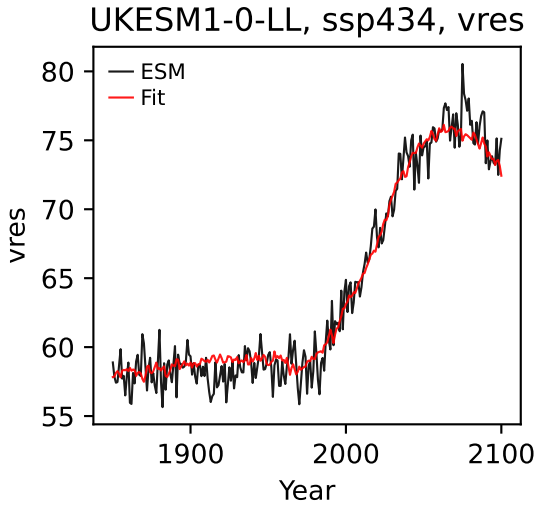

UKESM1-0-LL, ssp434, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
UKESM1-0-LL
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
9.9
8.7
7.5
6.3
5.1
3.9
2.7
1.5
0.3

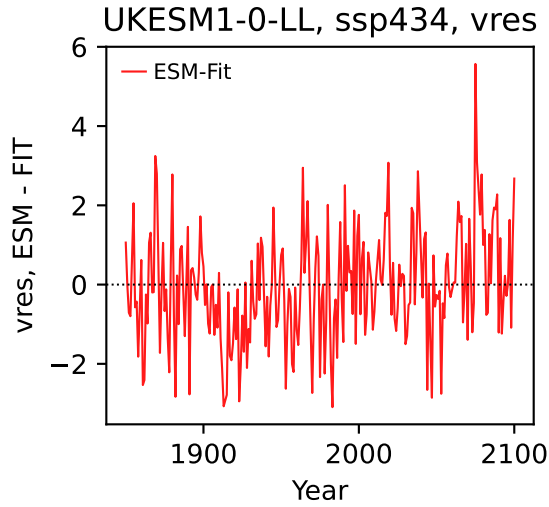

UKESM1-0-LL, ssp434, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
lit_c_half
lit_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
5.8
5.2
4.6
4.0
3.4
2.8
2.2
1.6
1.0
0.4

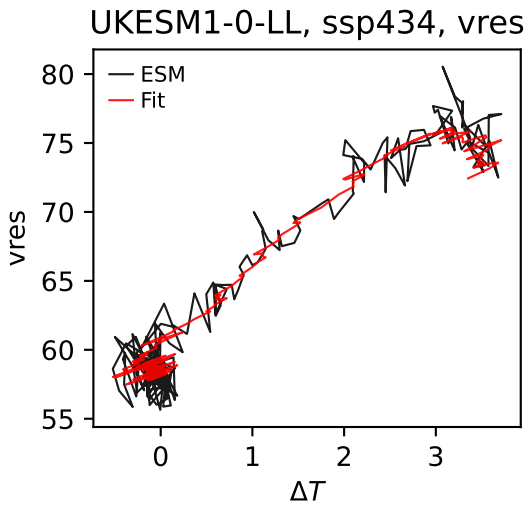

UKESM1-0-LL, ssp434, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
UKESM1-0-LL
lit_hyst
lit_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10
9
8
7
6
5
4
3
2

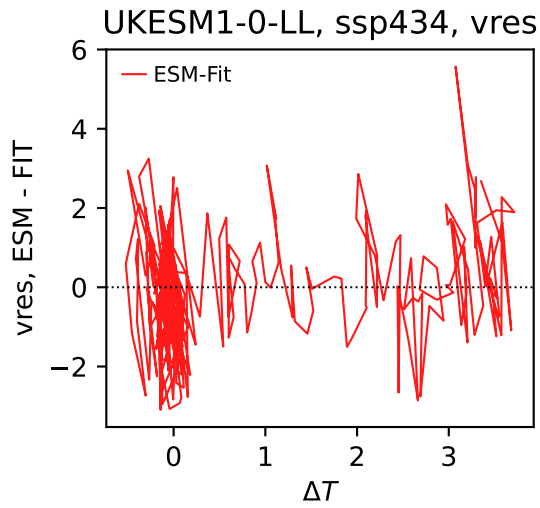

UKESM1-0-LL, ssp434, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
1e−13+6.06657659e−1
UKESM1-0-LL
lit_c_tan2
lit_c_tan
0.04
0.02
0.00
−0.02
−0.04
3.081
2.921
2.761
2.600
2.440
2.280
2.121
1.961

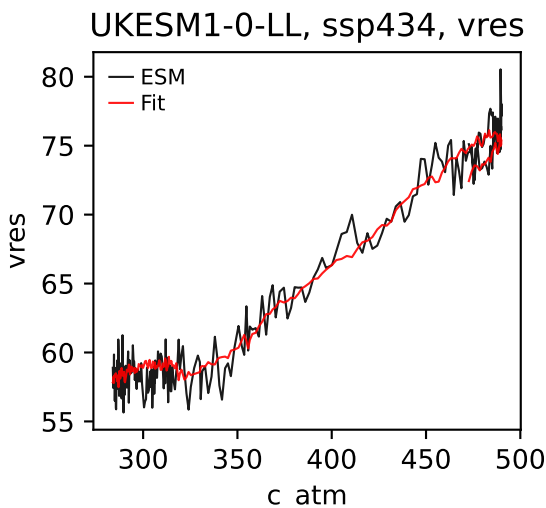

UKESM1-0-LL, ssp434, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5666, -0.0723, 0.0302, 0.0000, 0.9582, 0.8203, 0
1e−13+6.066557659e−1
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
lit_slow
0.90
0.92
0.94
0.96
0.98
1.00
lit_fast
UKESM1-0-LL
3.081
2.921
2.761
2.600
2.440
2.280
2.121
1.961

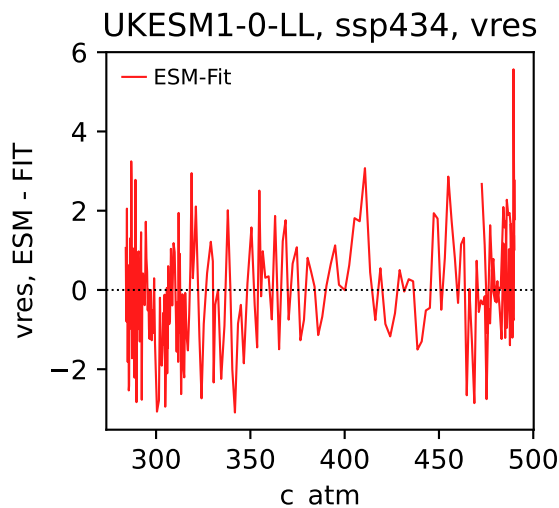

UKESM1-0-LL, ssp434, vres
ESM
Fit
vres
Year

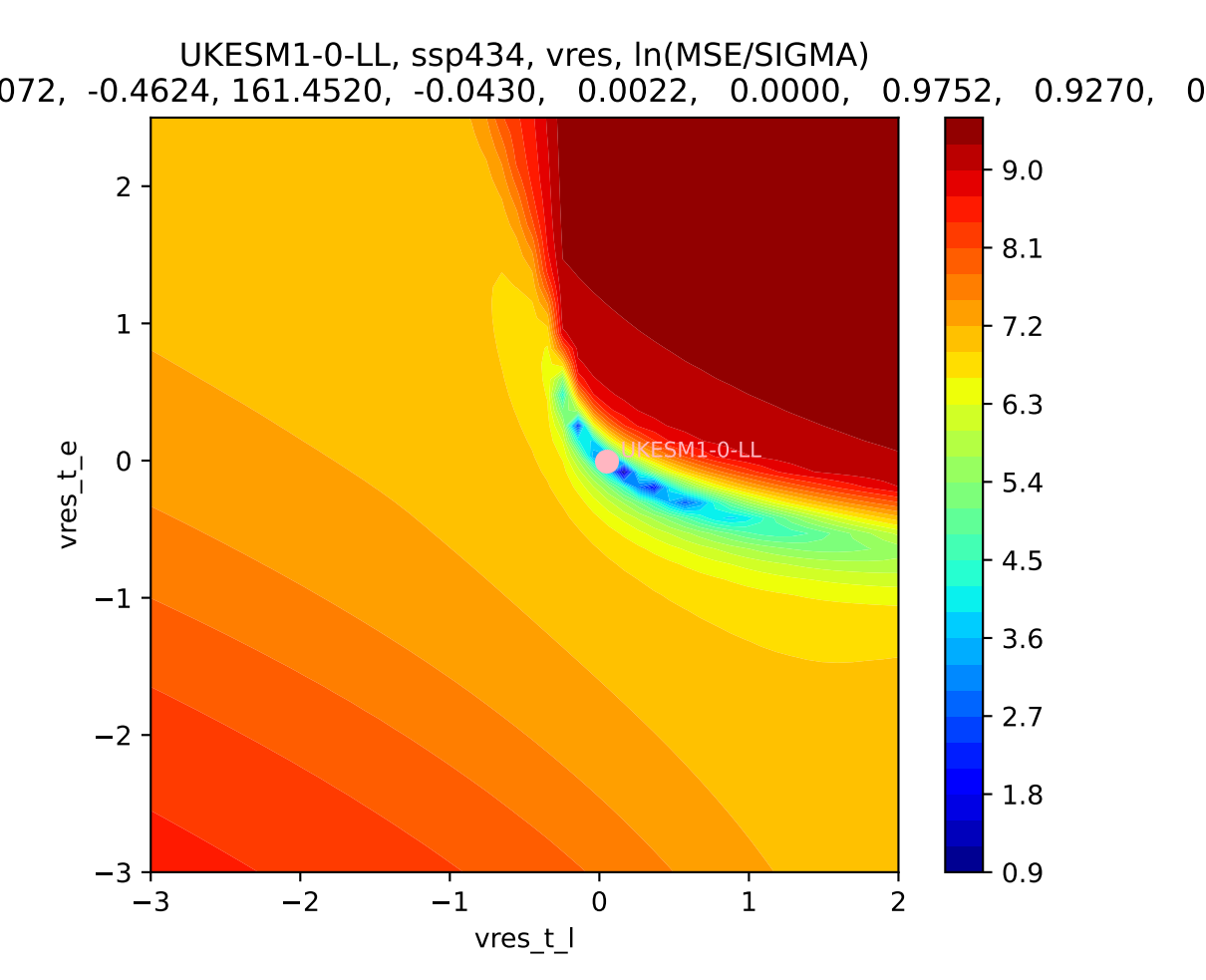

UKESM1-0-LL, ssp434, vres
ESM-Fit
vres, ESM - FIT
Year

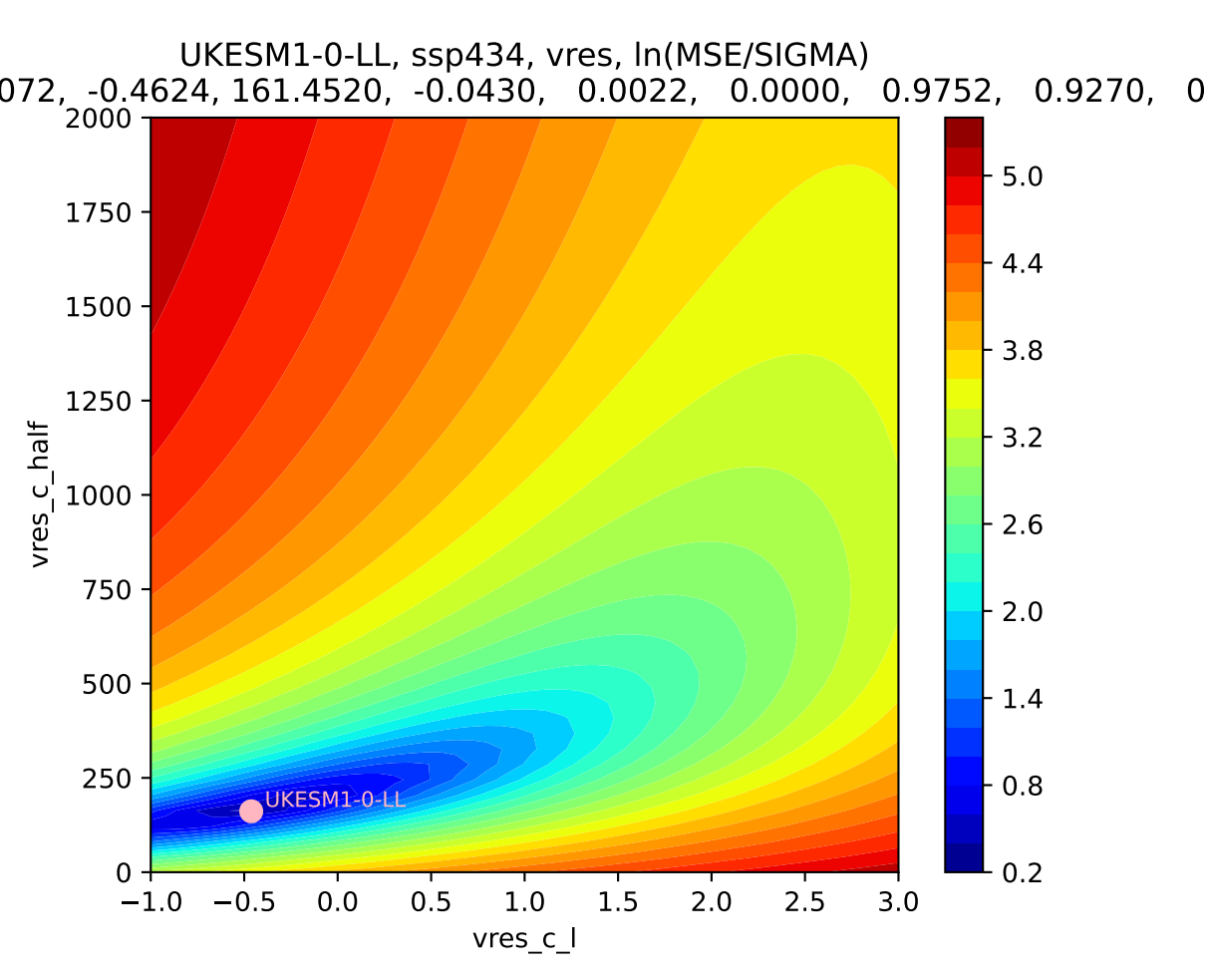

UKESM1-0-LL, ssp434, vres
ESM
Fit
vres
ΔT

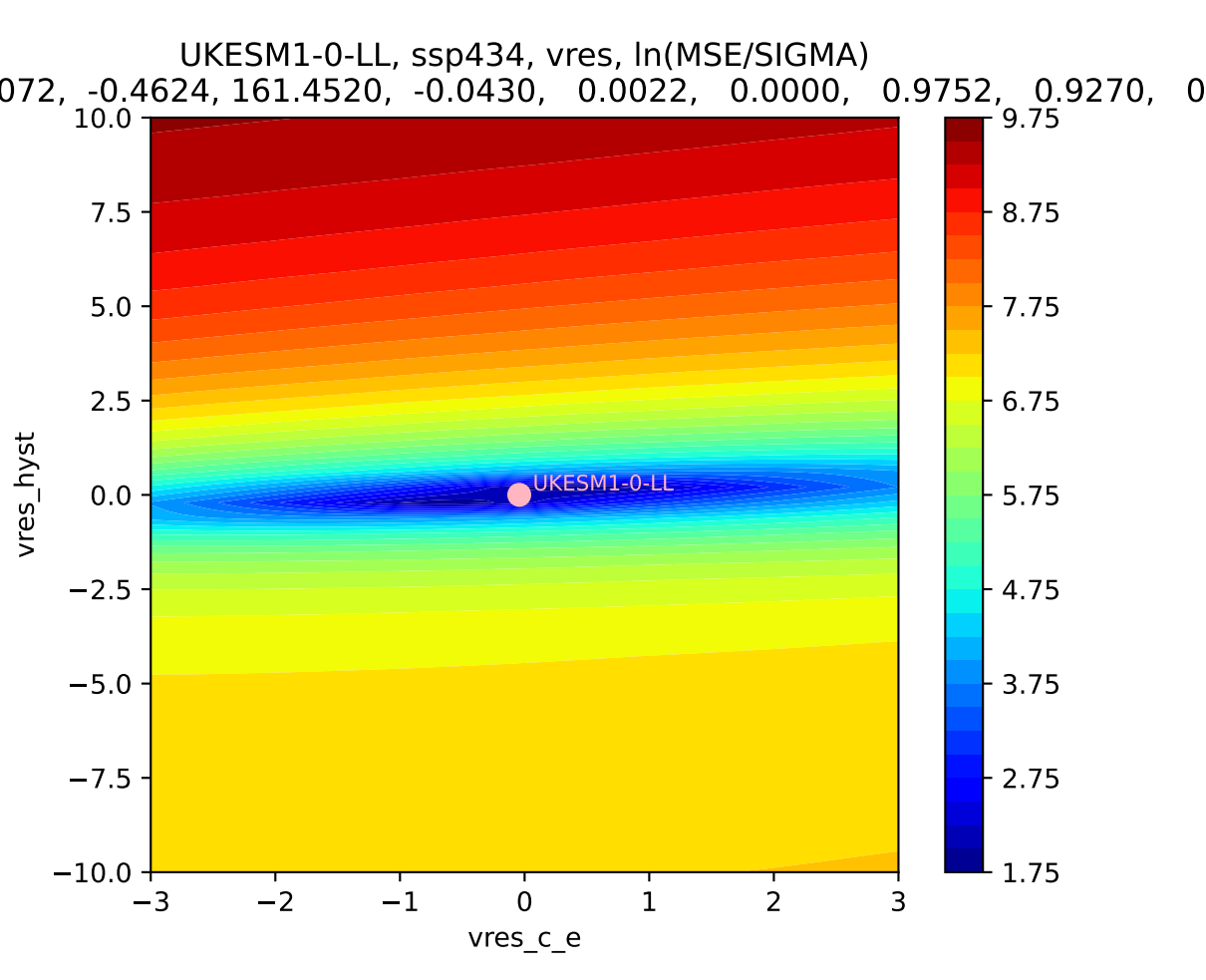

UKESM1-0-LL, ssp434, vres
ESM-Fit
vres, ESM - FIT
ΔT

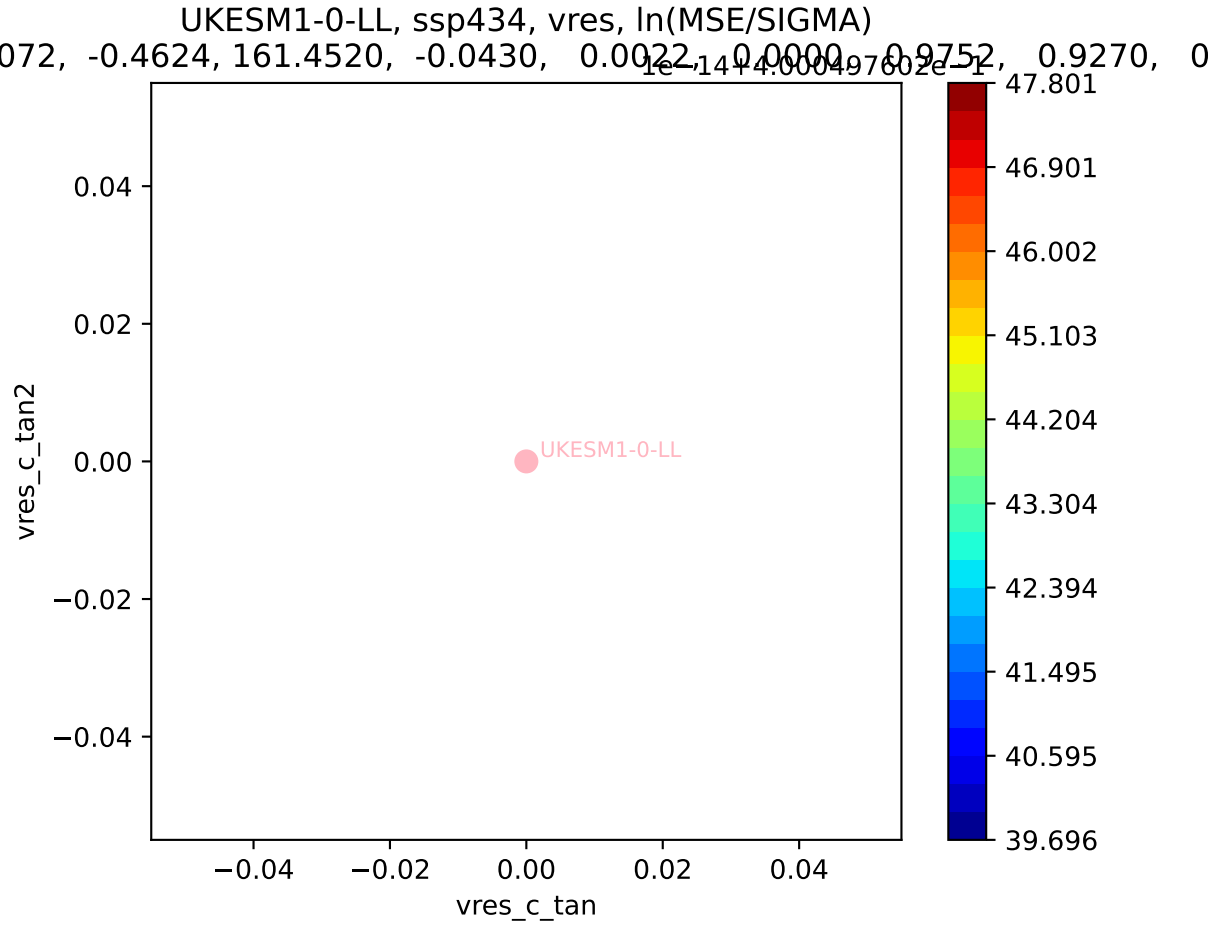

UKESM1-0-LL, ssp434, vres
ESM
Fit
vres
c_atm

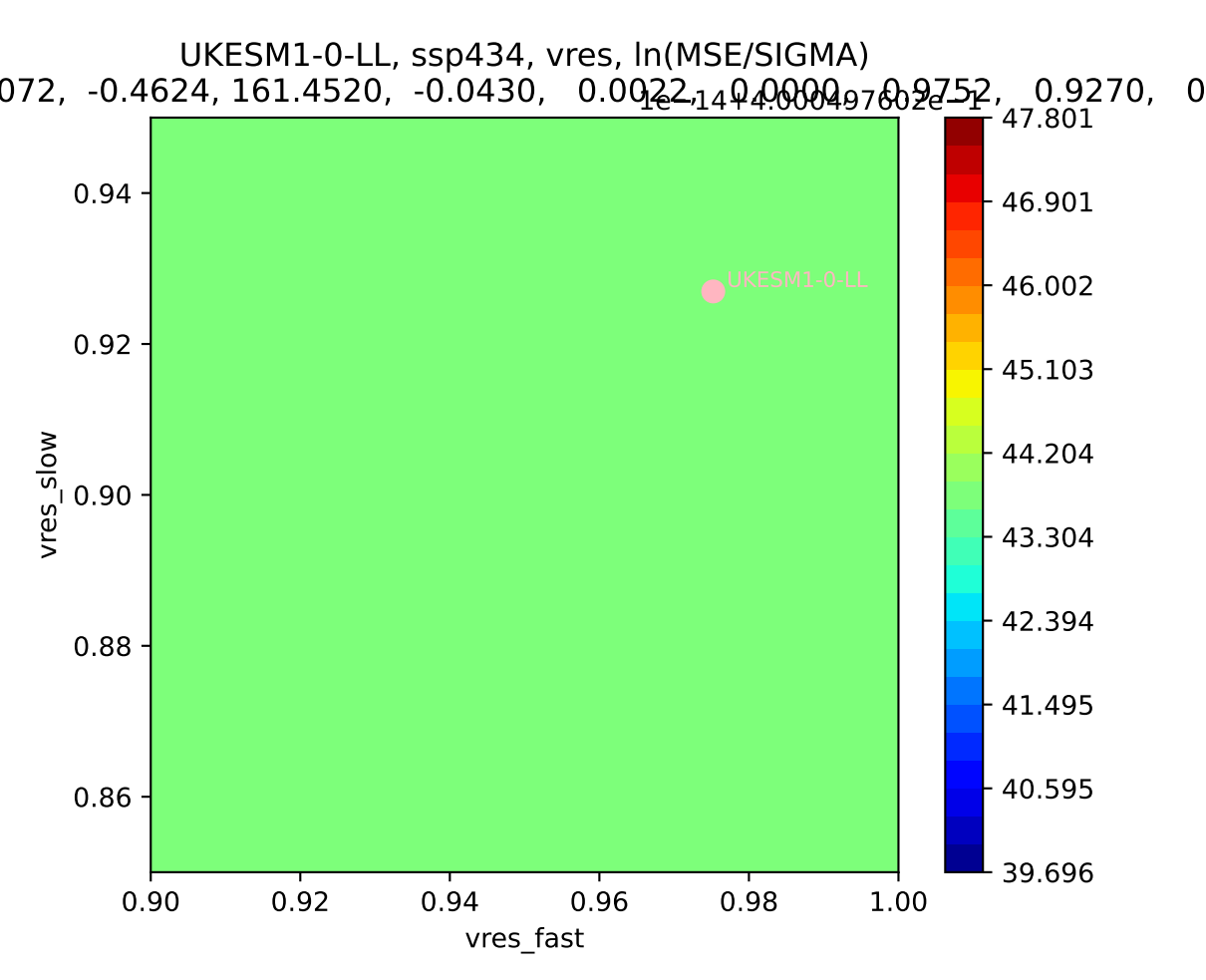

UKESM1-0-LL, ssp434, vres
ESM-Fit
vres, ESM - FIT
c_atm

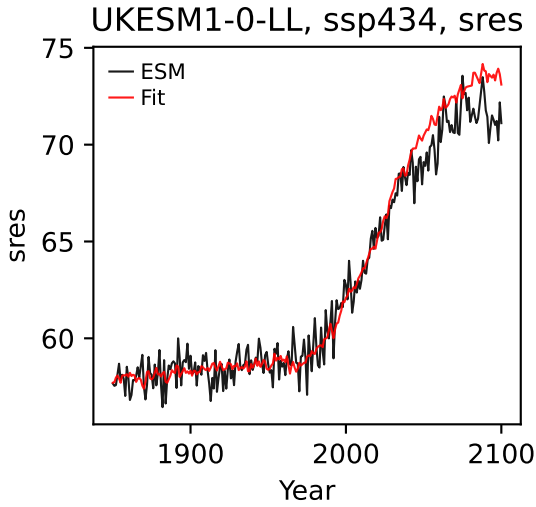

UKESM1-0-LL, ssp434, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
UKESM1-0-LL
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
9.0
8.1
7.2
6.3
5.4
4.5
3.6
2.7
1.8
0.9

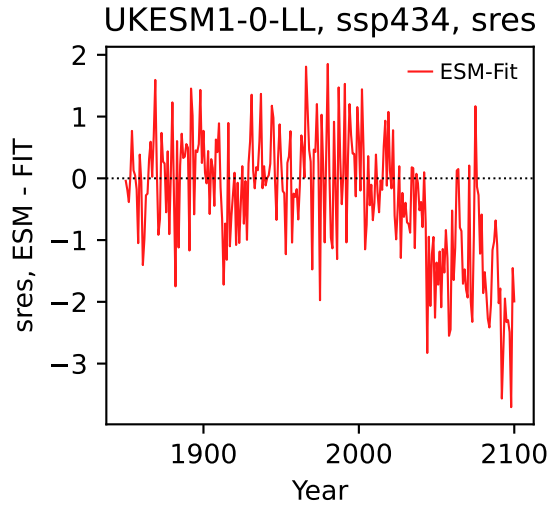

UKESM1-0-LL, ssp434, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
vres_c_half
vres_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
5.0
4.4
3.8
3.2
2.6
2.0
1.4
0.8
0.2

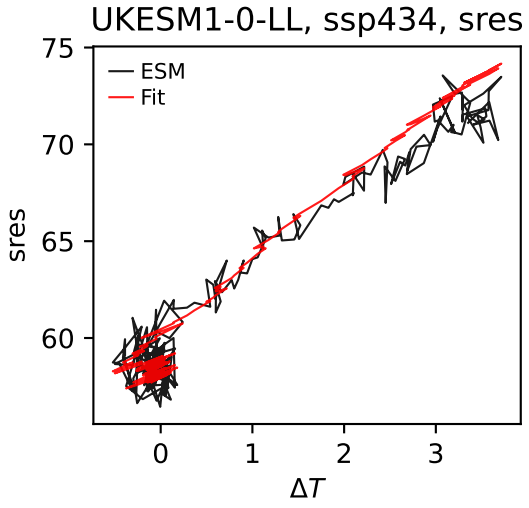

UKESM1-0-LL, ssp434, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
UKESM1-0-LL
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
9.75
8.75
7.75
6.75
5.75
4.75
3.75
2.75
1.75

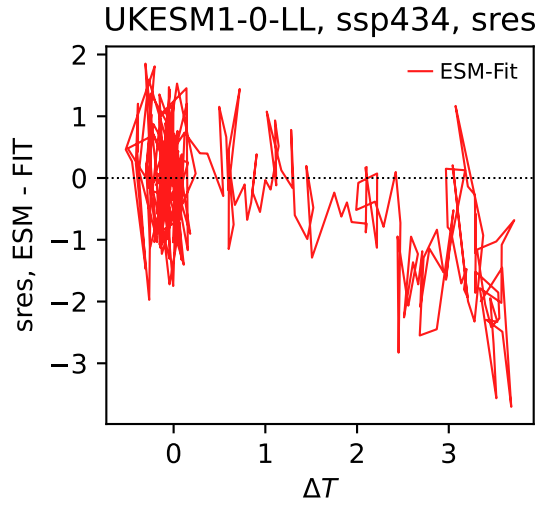

UKESM1-0-LL, ssp434, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
1e−14+4.000497602e−1
UKESM1-0-LL
vres_c_tan2
vres_c_tan
0.04
0.02
0.00
−0.02
−0.04
47.801
46.901
46.002
45.103
44.204
43.304
42.394
41.495
40.595
39.696

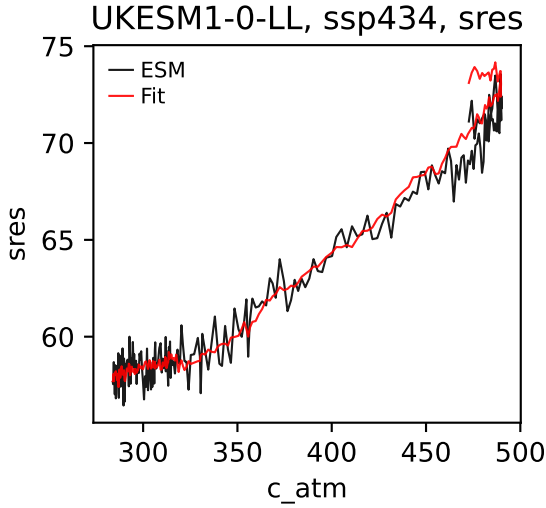

UKESM1-0-LL, ssp434, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4520, -0.0430, 0.0022, 0.0000, 0.9752, 0.9270, 0
1e−14+4.00049760 2e−1
UKESM1-0-LL
0.94
0.92
0.90
0.88
0.86
vres_slow
0.90
0.92
0.94
0.96
0.98
1.00
vres_fast
47.801
46.901
46.002
45.103
44.204
43.304
42.394
41.495
40.595
39.696

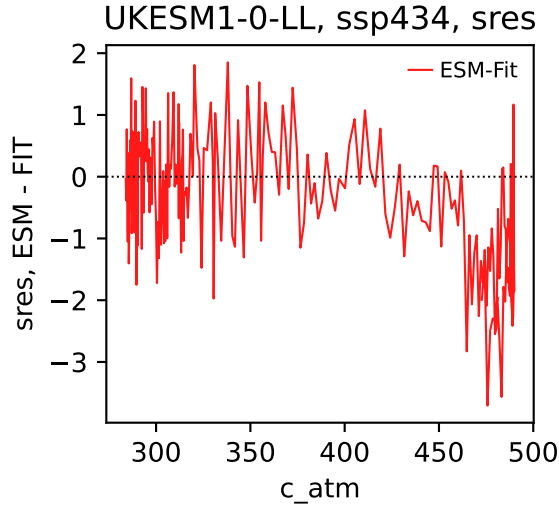

UKESM1-0-LL, ssp434, sres
ESM
Fit
sres
Year

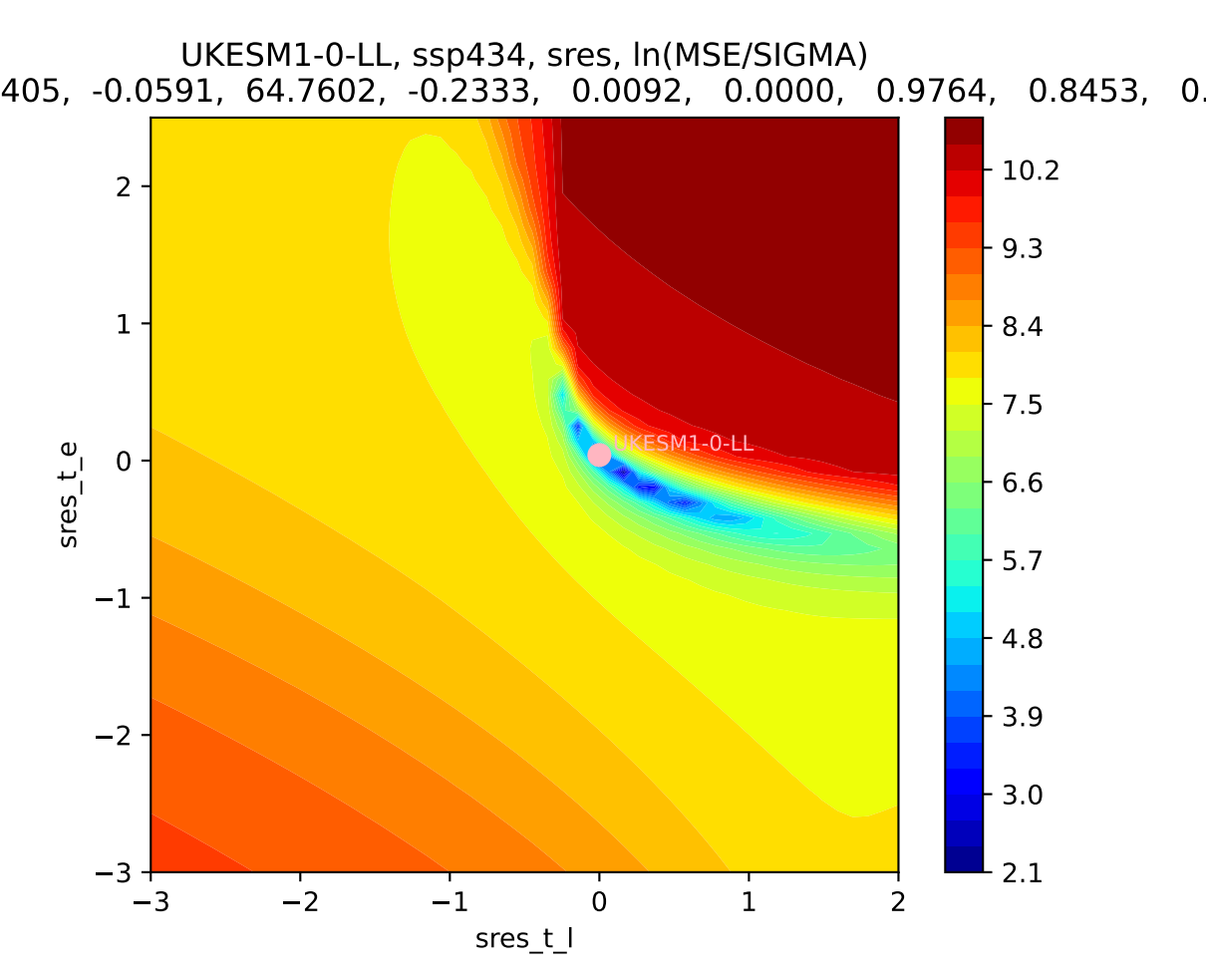

UKESM1-0-LL, ssp434, sres
ESM-Fit
sres, ESM - FIT
Year

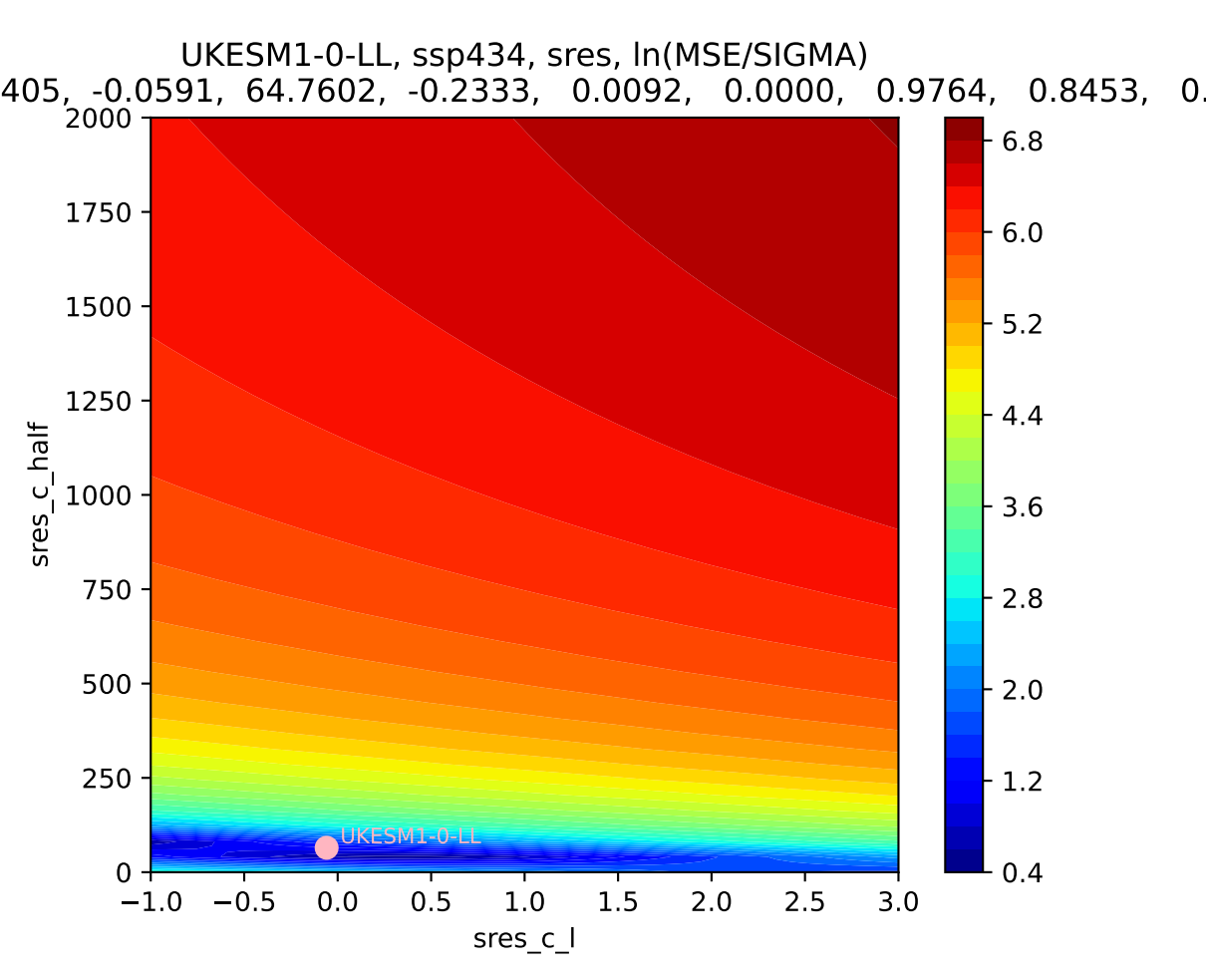

UKESM1-0-LL, ssp434, sres
ESM
Fit
sres
ΔT

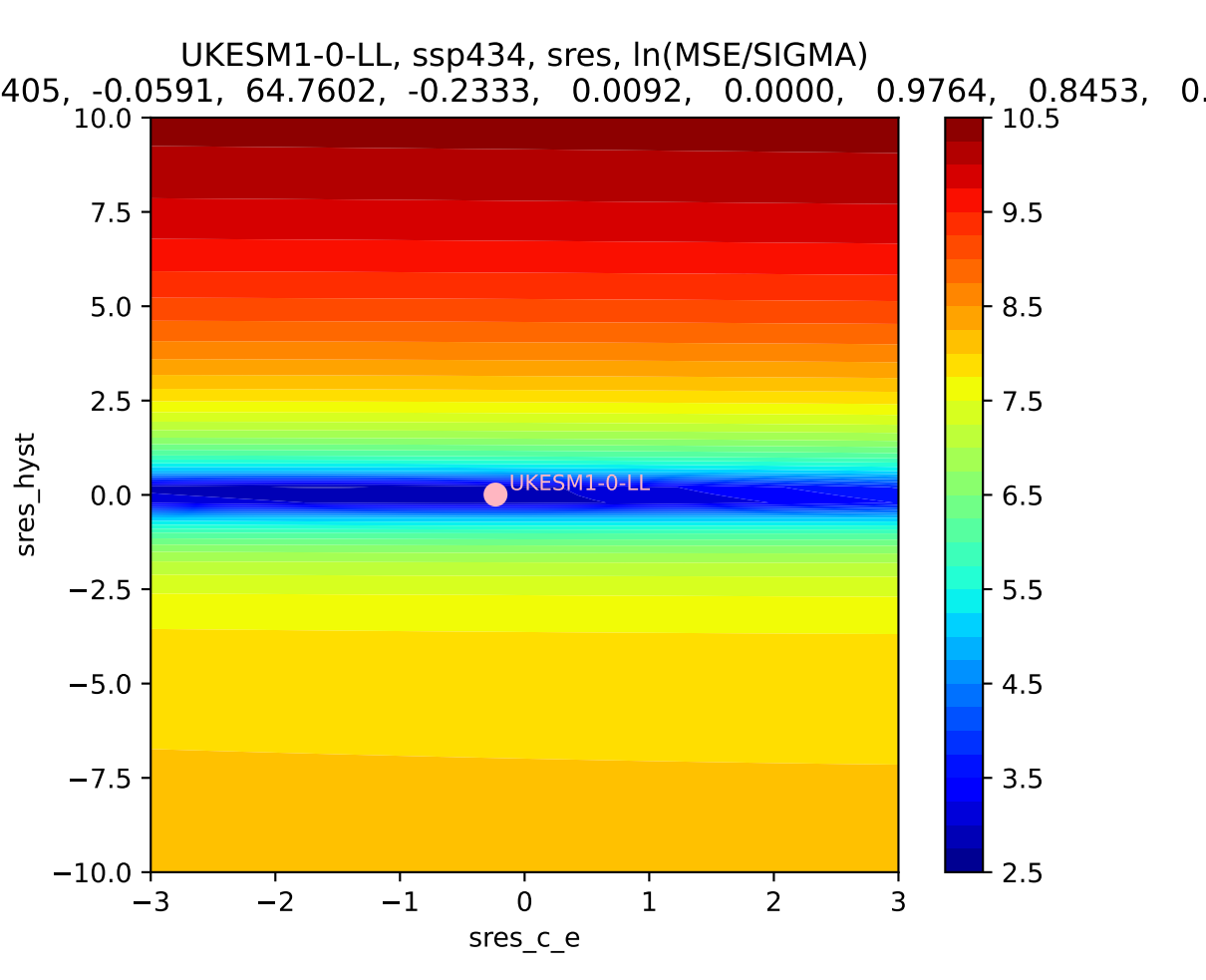

UKESM1-0-LL, ssp434, sres
ESM-Fit
sres, ESM - FIT
ΔT

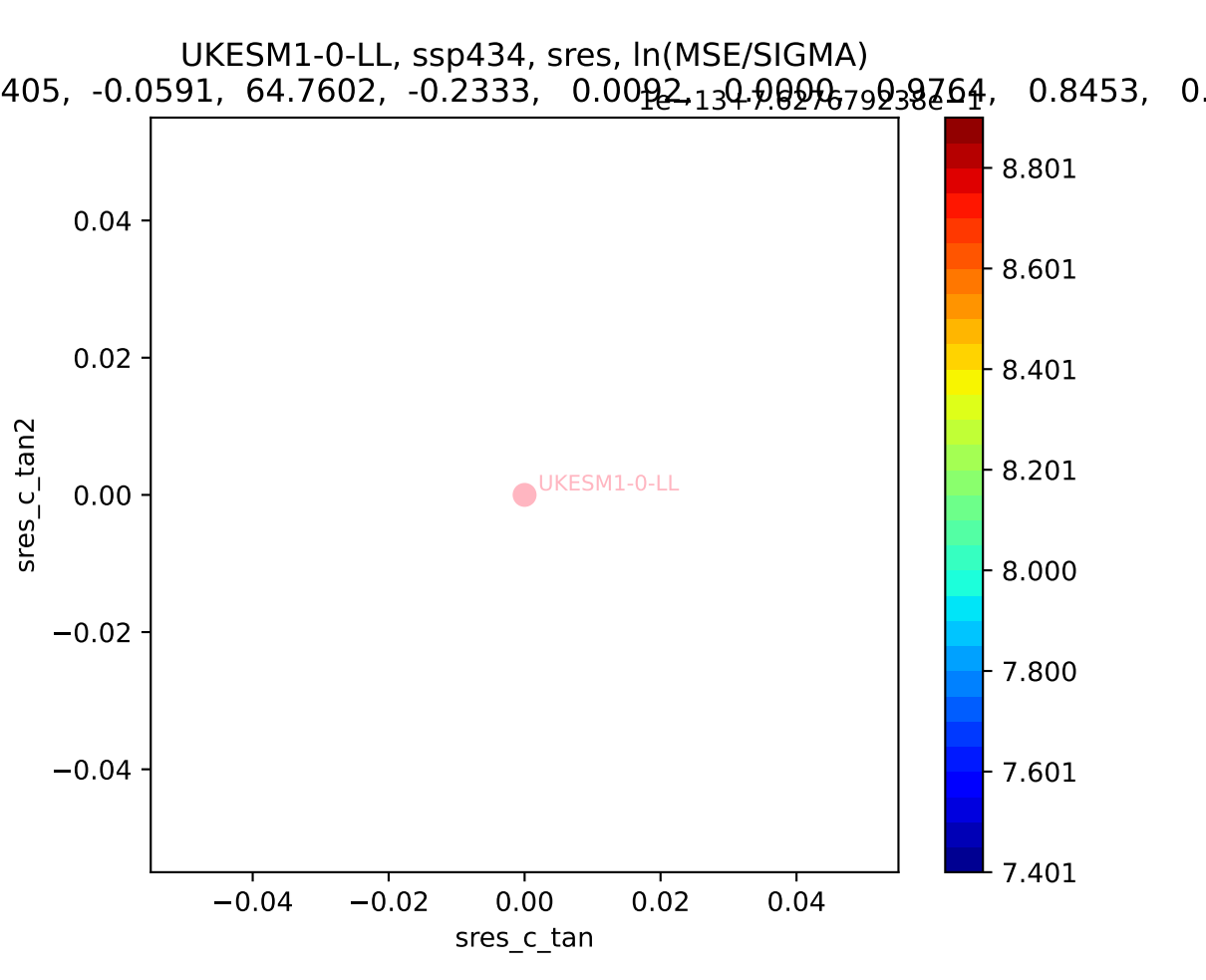

UKESM1-0-LL, ssp434, sres
ESM
Fit
sres
c_atm

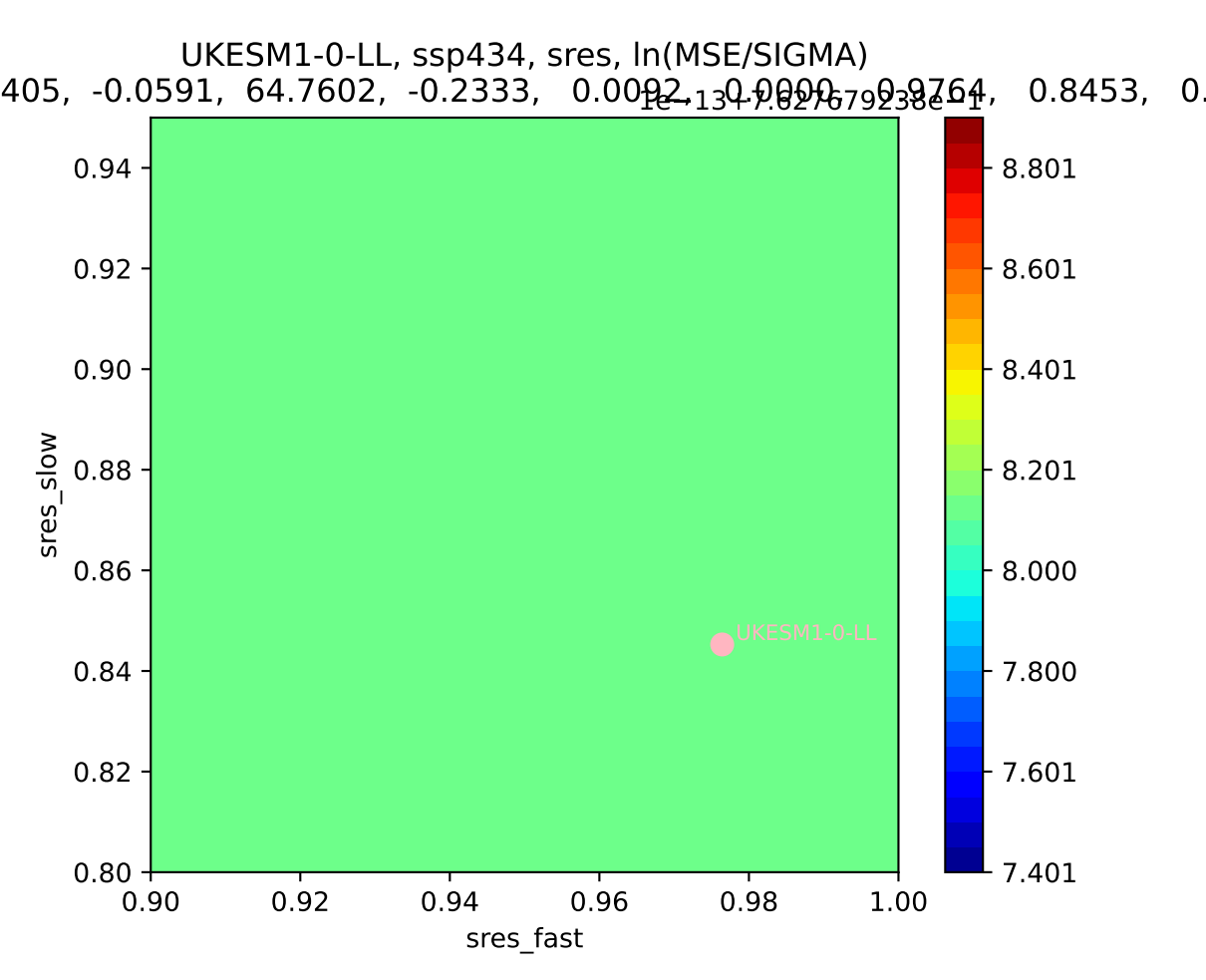

UKESM1-0-LL, ssp434, sres
ESM-Fit
sres, ESM - FIT
c_atm

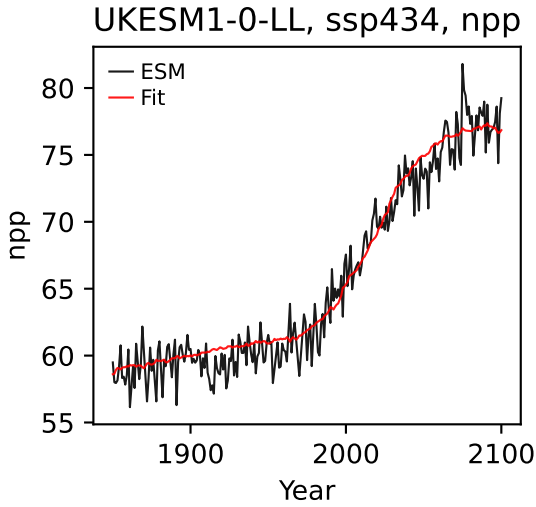

UKESM1-0-LL, ssp434, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
UKESM1-0-LL
sres_t_e
sres_t_l
2
1
0
−1
−2
−3
10.2
9.3
8.4
7.5
6.6
5.7
4.8
3.9
3.0
2.1

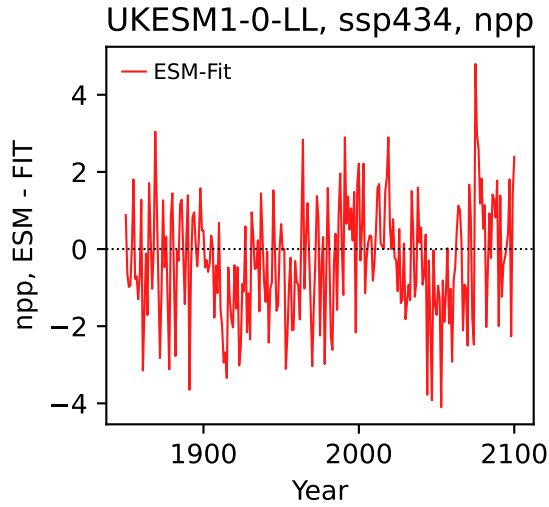

UKESM1-0-LL, ssp434, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
sres_c_half
sres_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
6.8
6.0
5.2
4.4
3.6
2.8
2.0
1.2
0.4

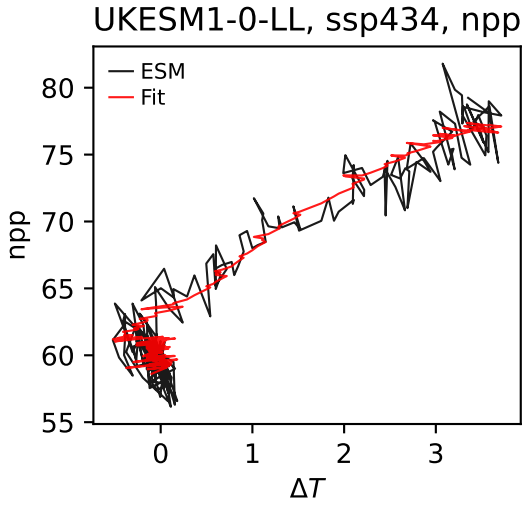

UKESM1-0-LL, ssp434, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
UKESM1-0-LL
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.5
9.5
8.5
7.5
6.5
5.5
4.5
3.5
2.5

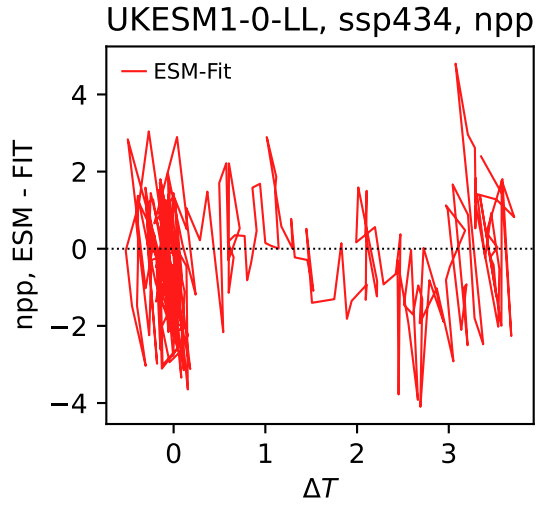

UKESM1-0-LL, ssp434, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
1e−13 +7.627679238e−1
UKESM1-0-LL
sres_c_tan2
sres_c_tan
0.04
0.02
0.00
−0.02
−0.04
8.801
8.601
8.401
8.201
8.000
7.800
7.601
7.401

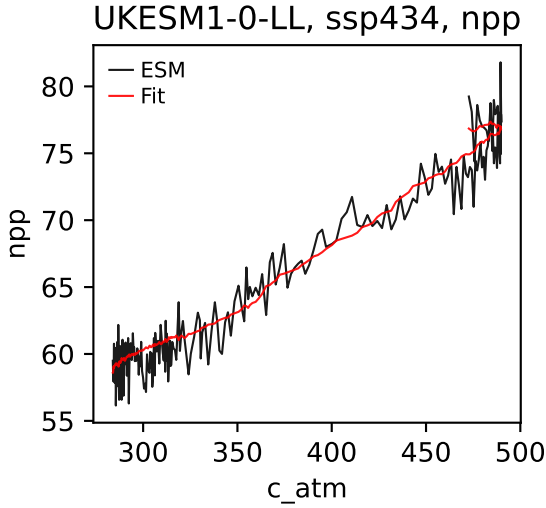

UKESM1-0-LL, ssp434, sres, ln(MSE/SIGMA)
405, -0.0591, 64.7602, -0.2333, 0.0092, 0.0000, 0.9764, 0.8453, 0.
1e−13+7.627679238e−1
sres_slow
sres_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
UKESM1-0-LL
8.801
8.601
8.401
8.201
8.000
7.800
7.601
7.401

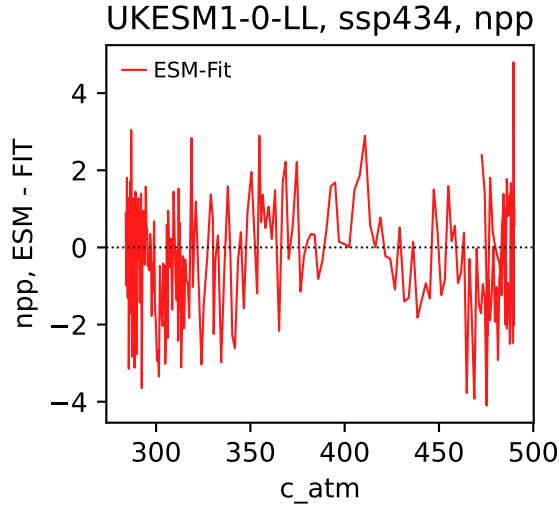

UKESM1-0-LL, ssp434, npp
ESM
Fit
npp
Year

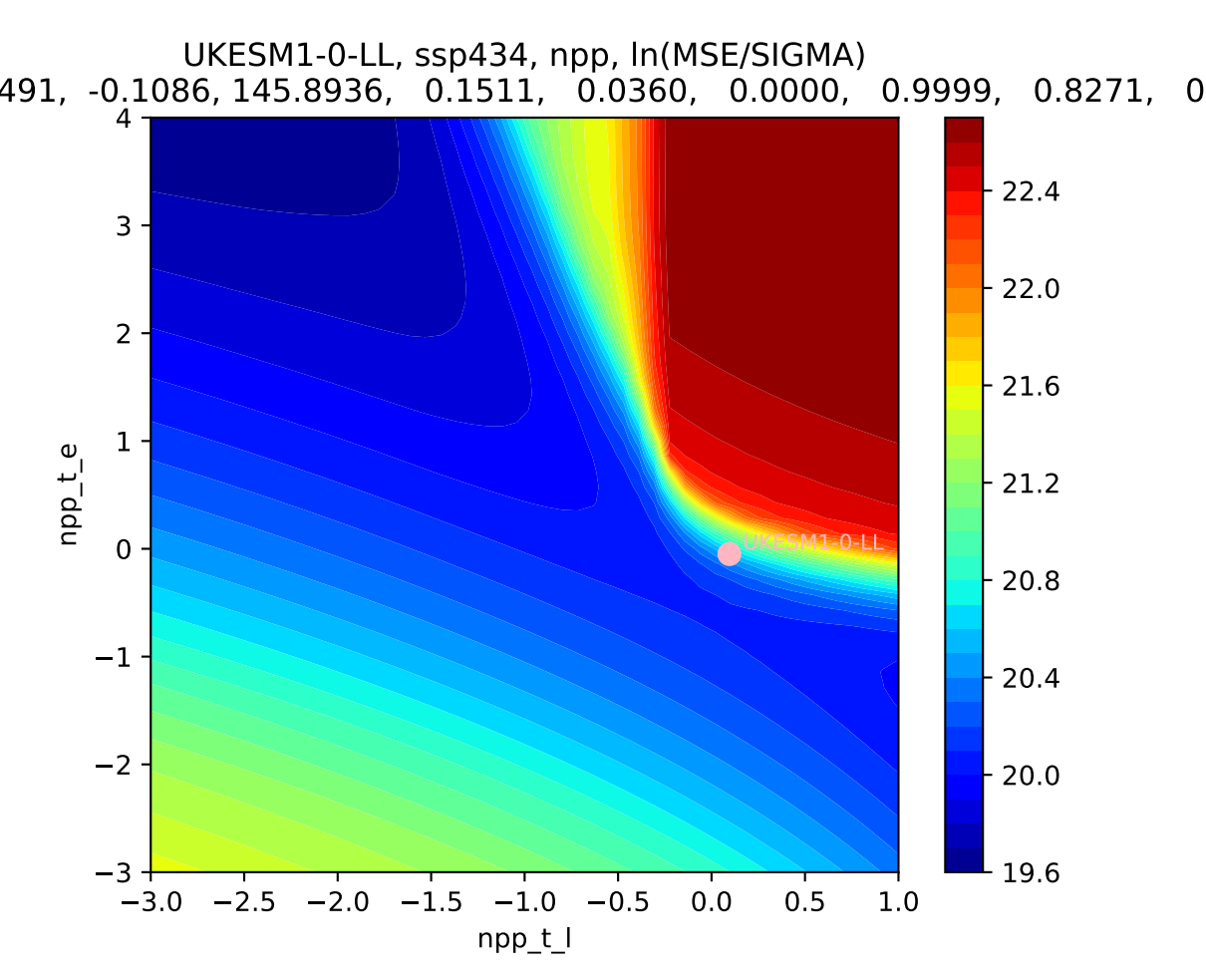

UKESM1-0-LL, ssp434, npp
ESM-Fit
npp, ESM - FIT
Year

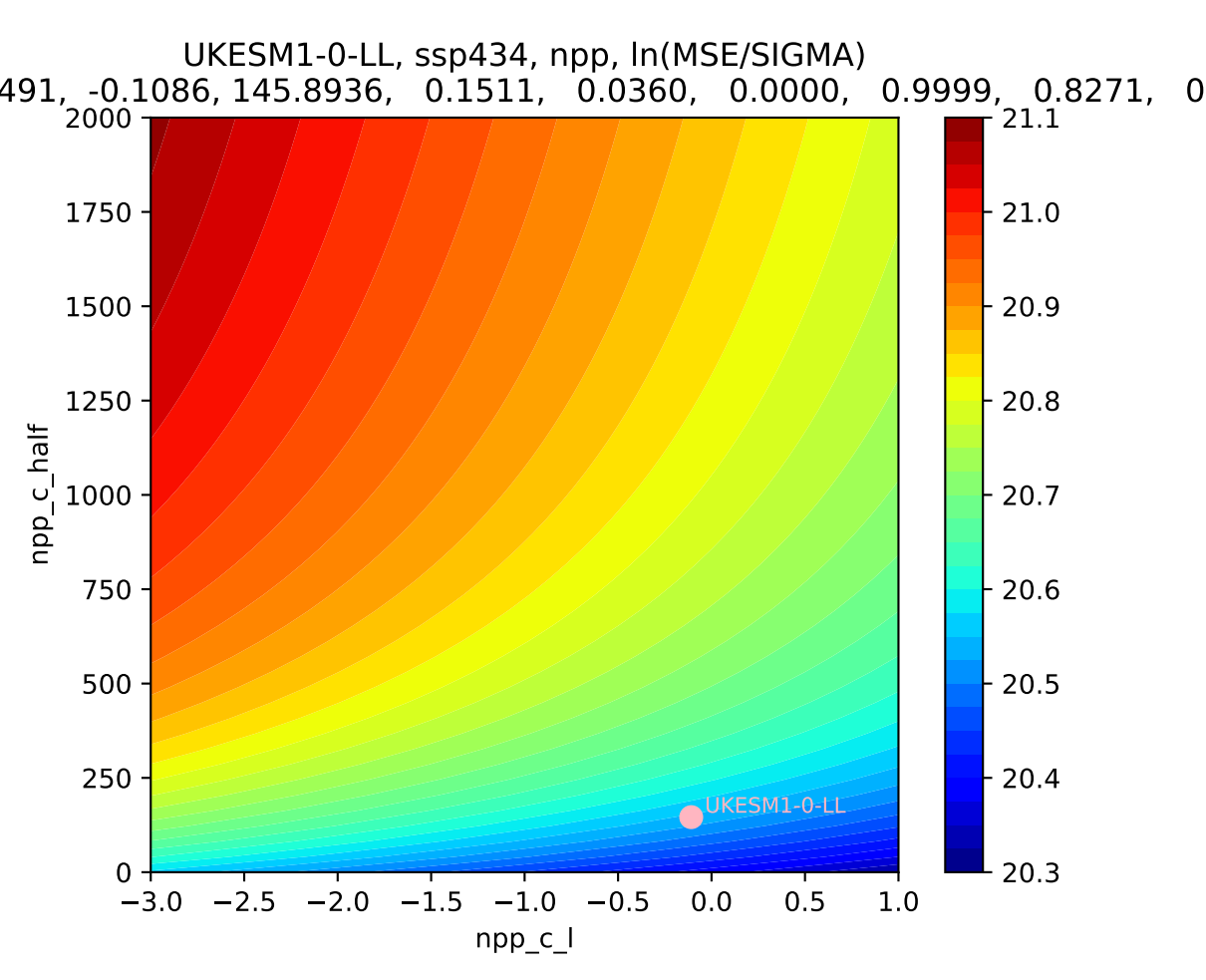

UKESM1-0-LL, ssp434, npp
ESM
Fit
npp
ΔT

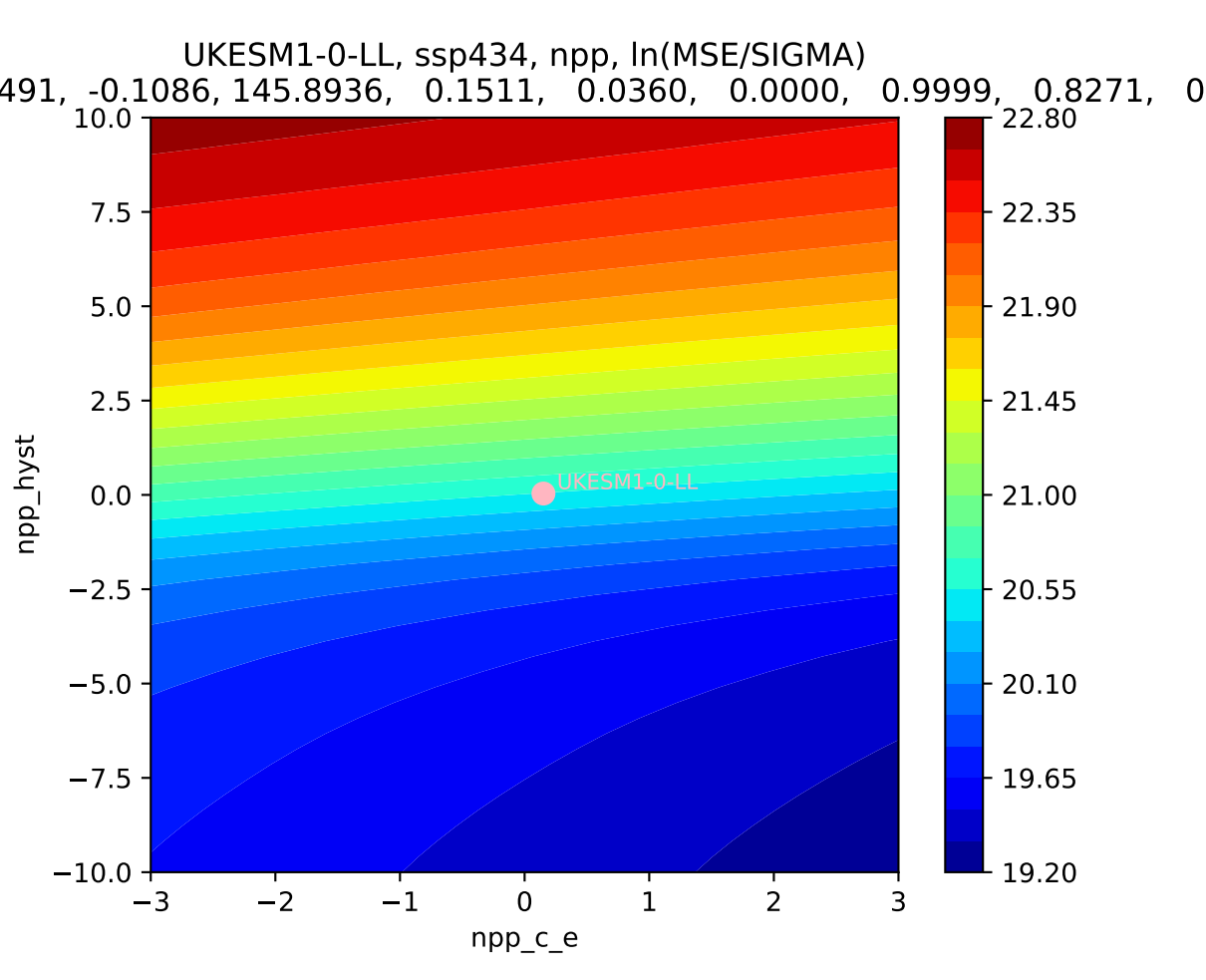

UKESM1-0-LL, ssp434, npp
ESM-Fit
npp, ESM - FIT
ΔT

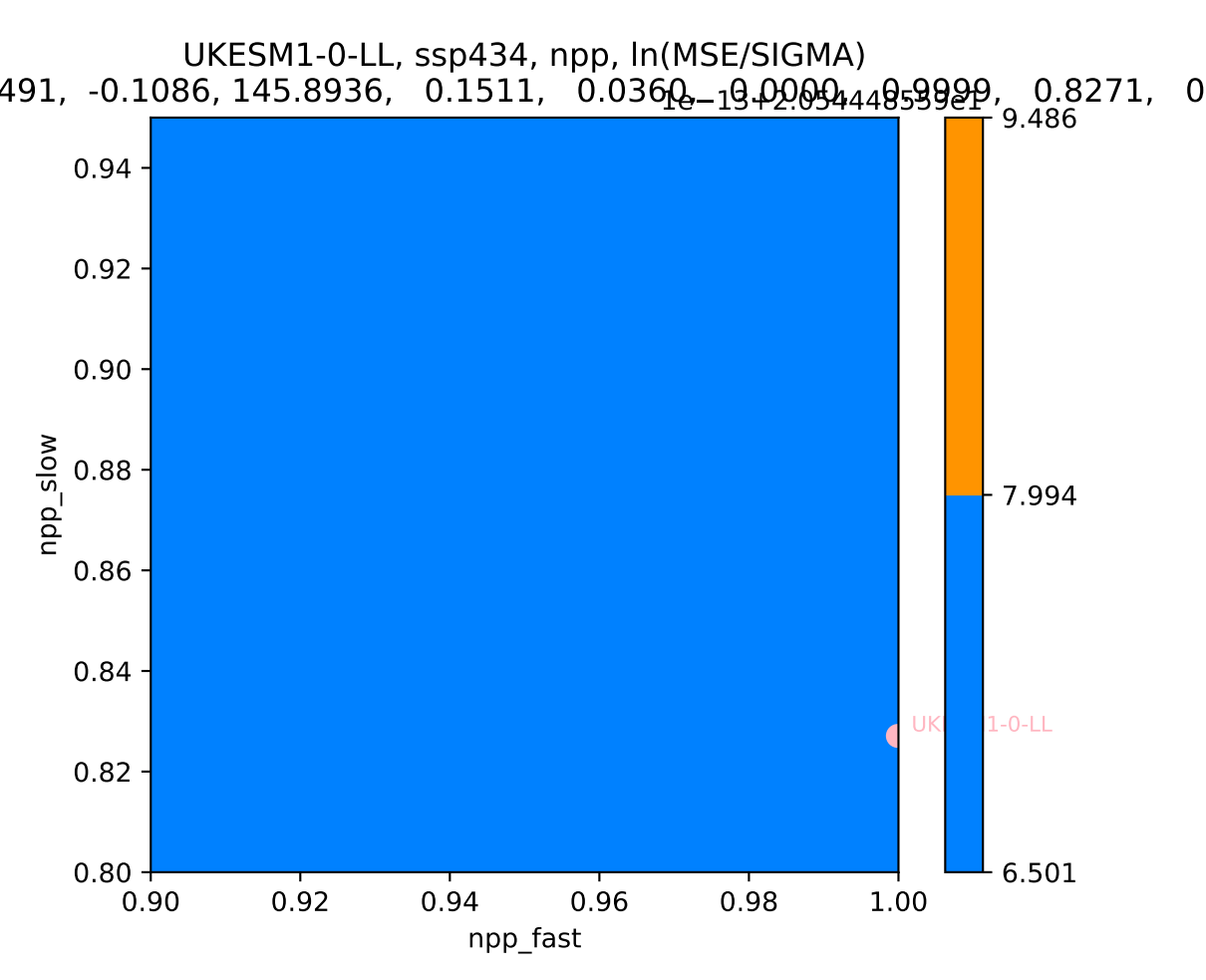

UKESM1-0-LL, ssp434, npp
ESM
Fit
npp
c_atm

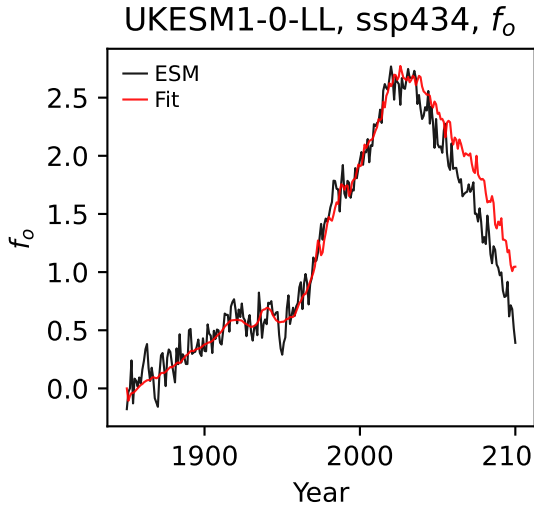

UKESM1-0-LL, ssp434, npp
ESM-Fit
npp, ESM - FIT
c_atm

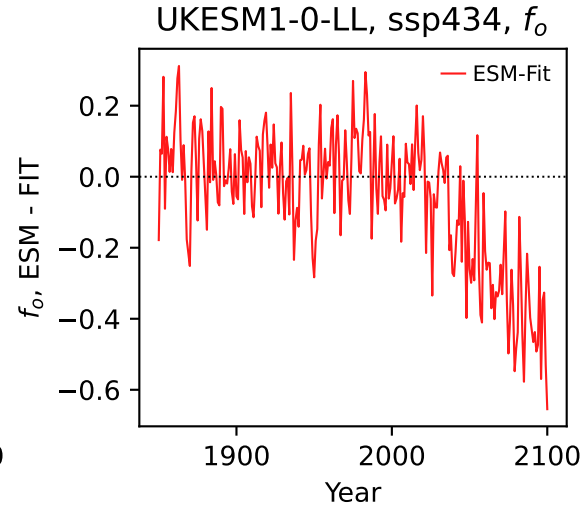

UKESM1-0-LL, ssp434, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8936, 0.1511, 0.0360, 0.0000, 0.9999, 0.8271, 0
UKESM1-0-LL
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
22.4
22.0
21.6
21.2
20.8
20.4
20.0
19.6

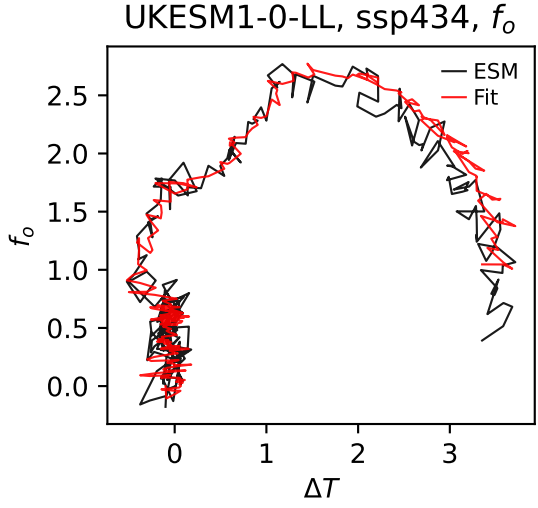

UKESM1-0-LL, ssp434, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8936, 0.1511, 0.0360, 0.0000, 0.9999, 0.8271, 0
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
npp_c_l
UKESM1-0-LL
21.1
21.0
20.9
20.8
20.7
20.6
20.5
20.4
20.3

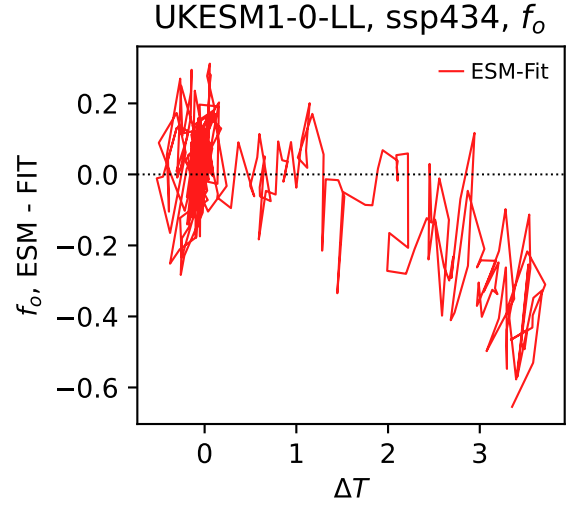

UKESM1-0-LL, ssp434, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8936, 0.1511, 0.0360, 0.0000, 0.9999, 0.8271, 0
UKESM1-0-LL
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.80
22.35
21.90
21.45
21.00
20.55
20.10
19.65
19.20

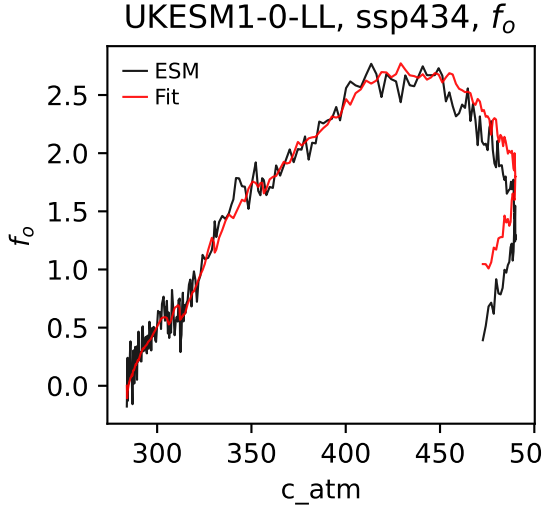

UKESM1-0-LL, ssp434, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8936, 0.1511, 0.0360, 0.0000, 0.9999, 0.8271, 0
1e−13+2.0544485591
9.486
7.994
6.501
UK 1-0-LL
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
npp_slow
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast

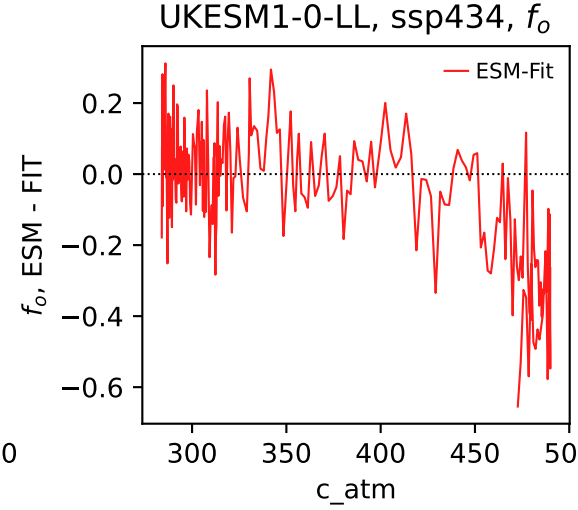

UKESM1-0-LL, ssp434, f_o
ESM
Fit
f_o
Year

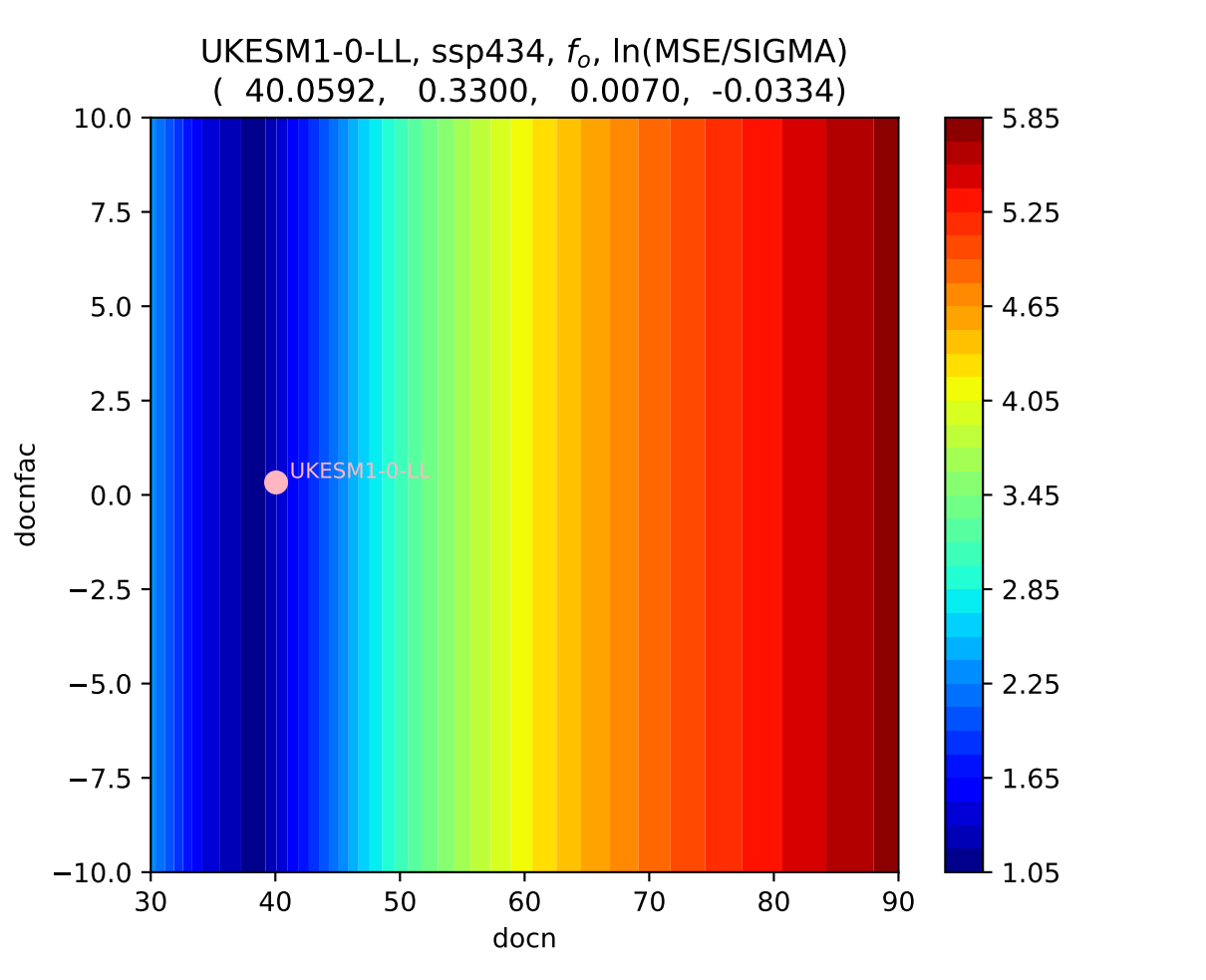

UKESM1-0-LL, ssp434, f_o
ESM-Fit
f_o, ESM - FIT
Year

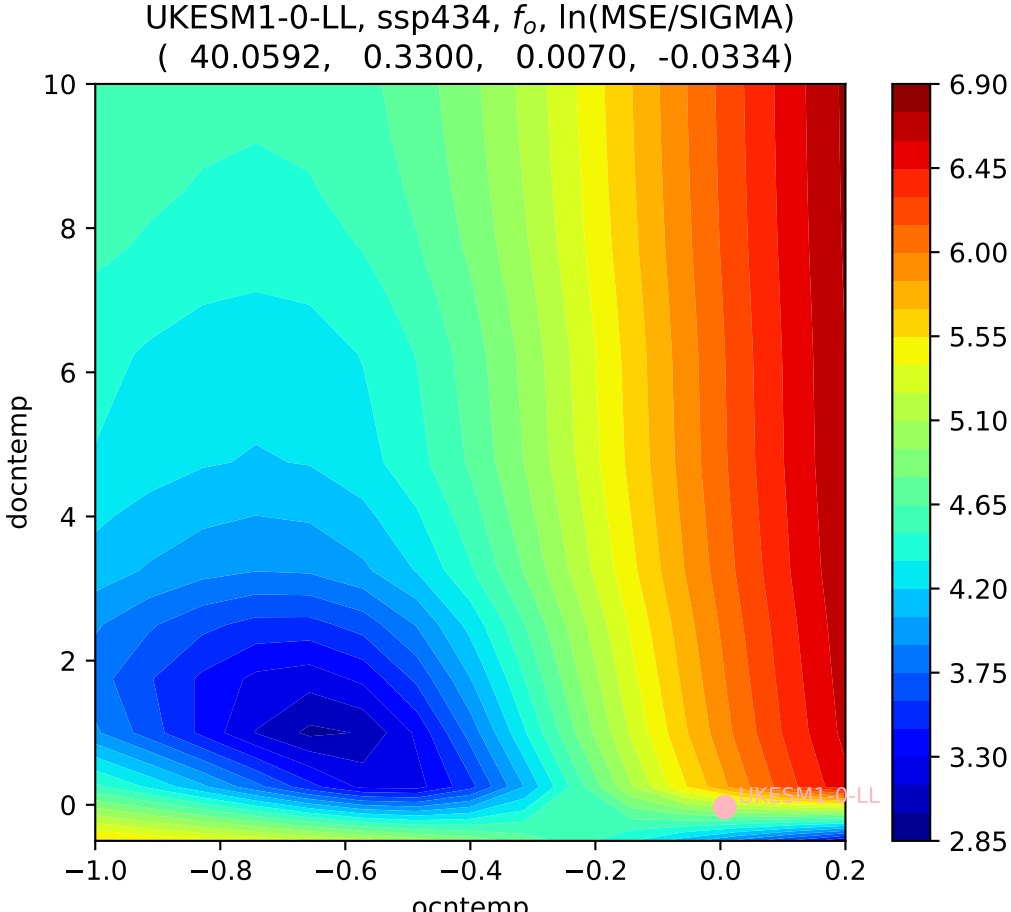

UKESM1-0-LL, ssp434, f_o
ESM
Fit
f_o
ΔT


UKESM1-0-LL, ssp434, f_o
ESM-Fit
f_o, ESM - FIT
ΔT


UKESM1-0-LL, ssp434, f_o
ESM
Fit
f_o
c_atm


UKESM1-0-LL, ssp434, f_o
ESM-Fit
f_o, ESM - FIT
c_atm


UKESM1-0-LL, ssp434, 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
5.85
5.25
4.65
4.05
3.45
2.85
2.25
1.65
1.05


UKESM1-0-LL, ssp434, f_o, ln(MSE/SIGMA)
(40.0592, 0.3300, 0.0070, -0.0334)
10
8
6
4
2
0
docntemp
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
ocntemp
UKESM1-0-LL
6.90
6.45
6.00
5.55
5.10
4.65
4.20
3.75
3.30
2.85