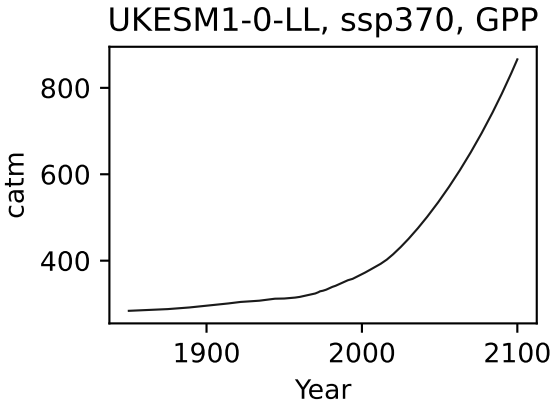
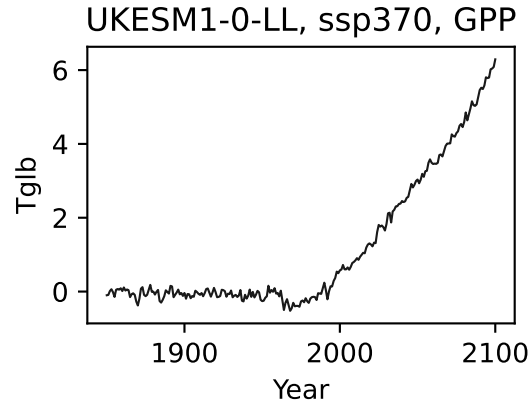
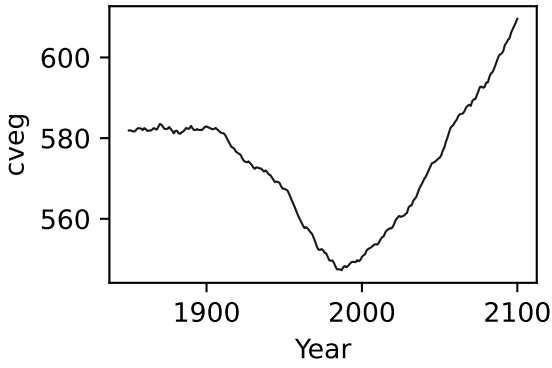
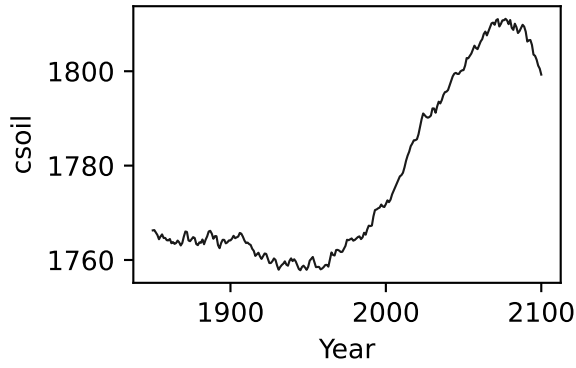
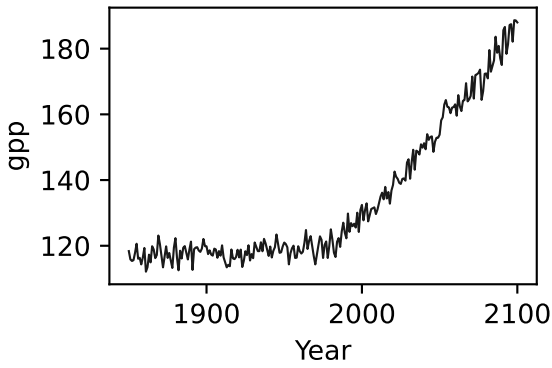
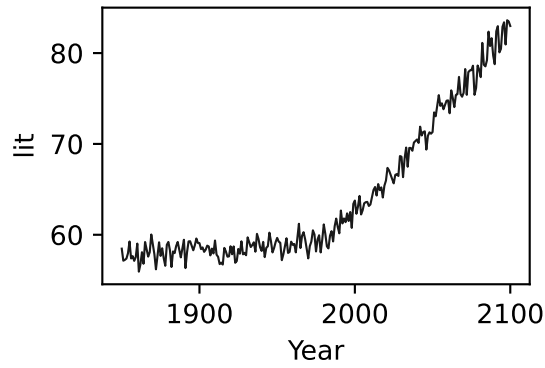

UKESM1-0-LL, ssp370, GPP
catm
800
600
400
1900
2000
2100
Year

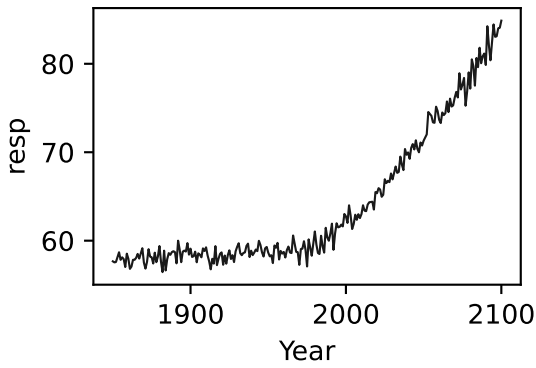

UKESM1-0-LL, ssp370, GPP
Tglb
6
4
2
0
1900
2000
2100
Year

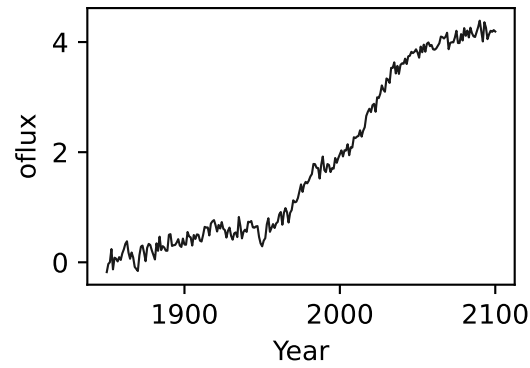

cveg
600
580
560
1900
2000
2100
Year

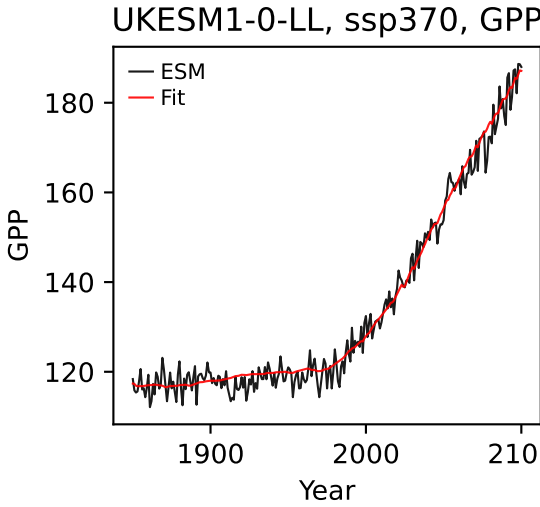

csoil
1800
1780
1760
1900
2000
2100
Year

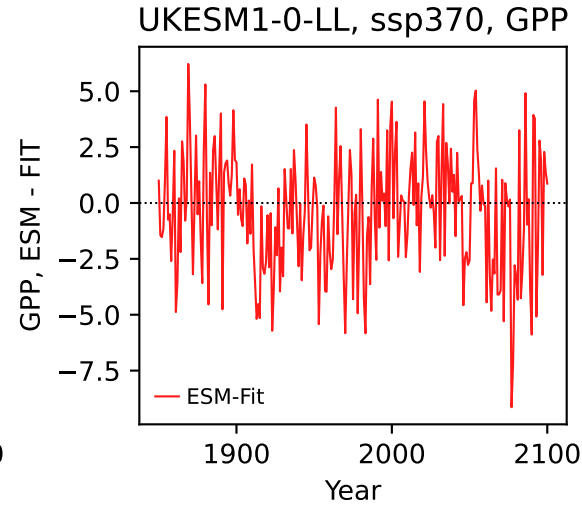

gpp
180
160
140
120
1900
2000
2100
Year

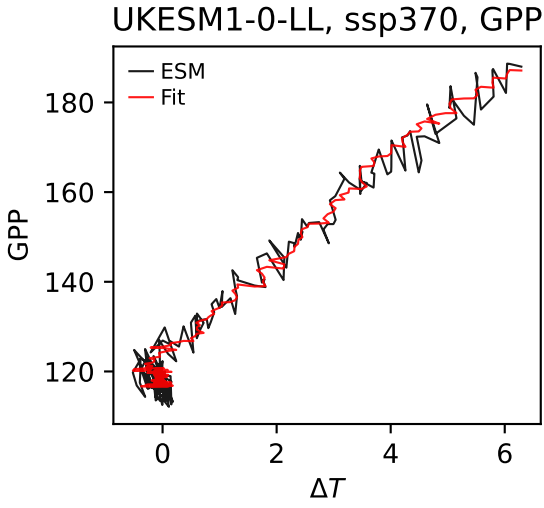

lit
80
70
60
1900
2000
2100
Year

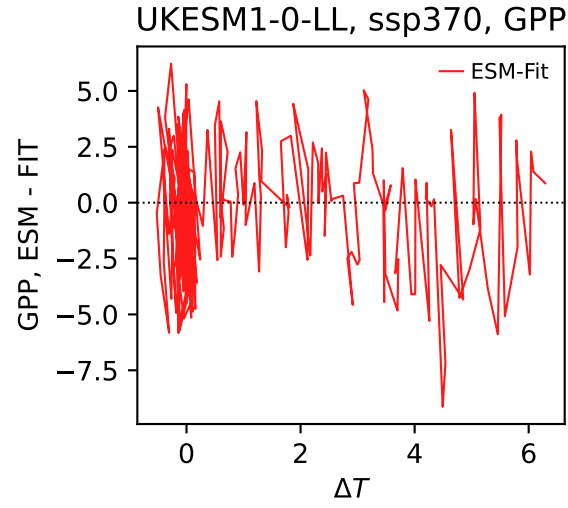

resp
80
70
60
1900
2000
2100
Year

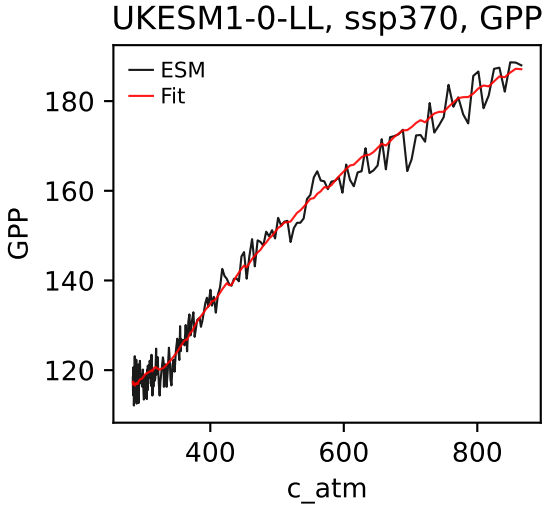

oflux
4
2
0
1900
2000
2100
Year

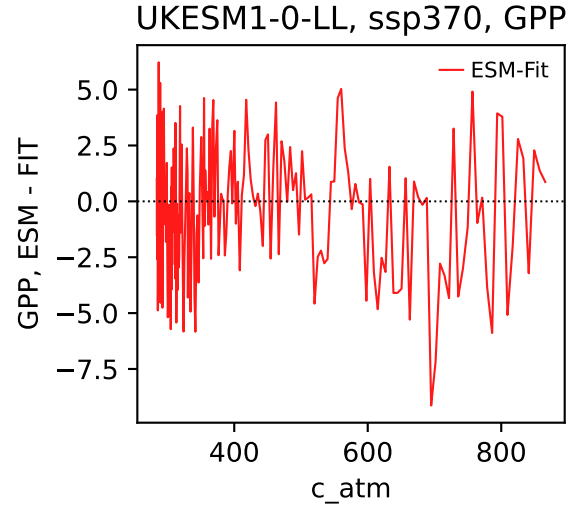

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
Year

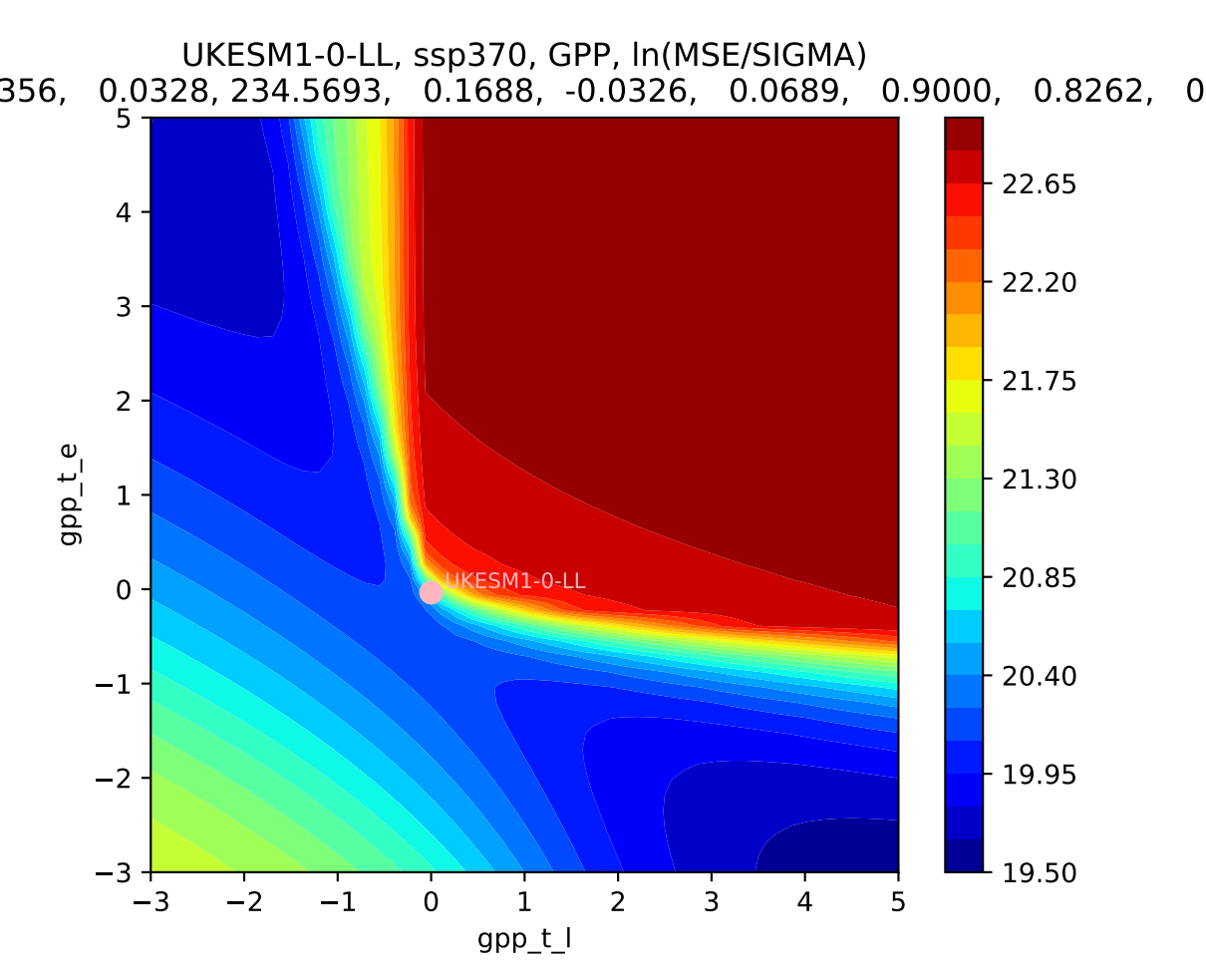

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
Year

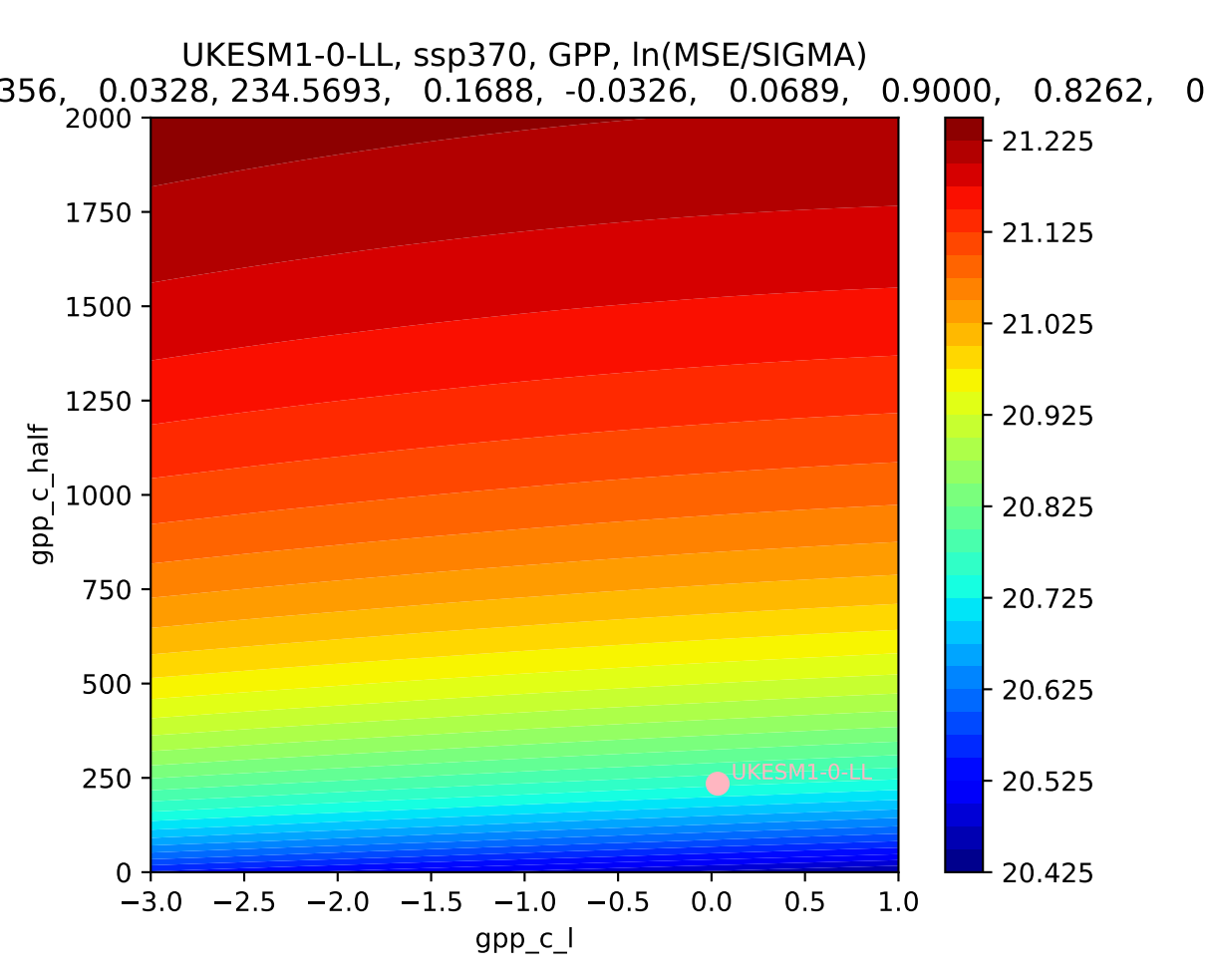

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
ΔT

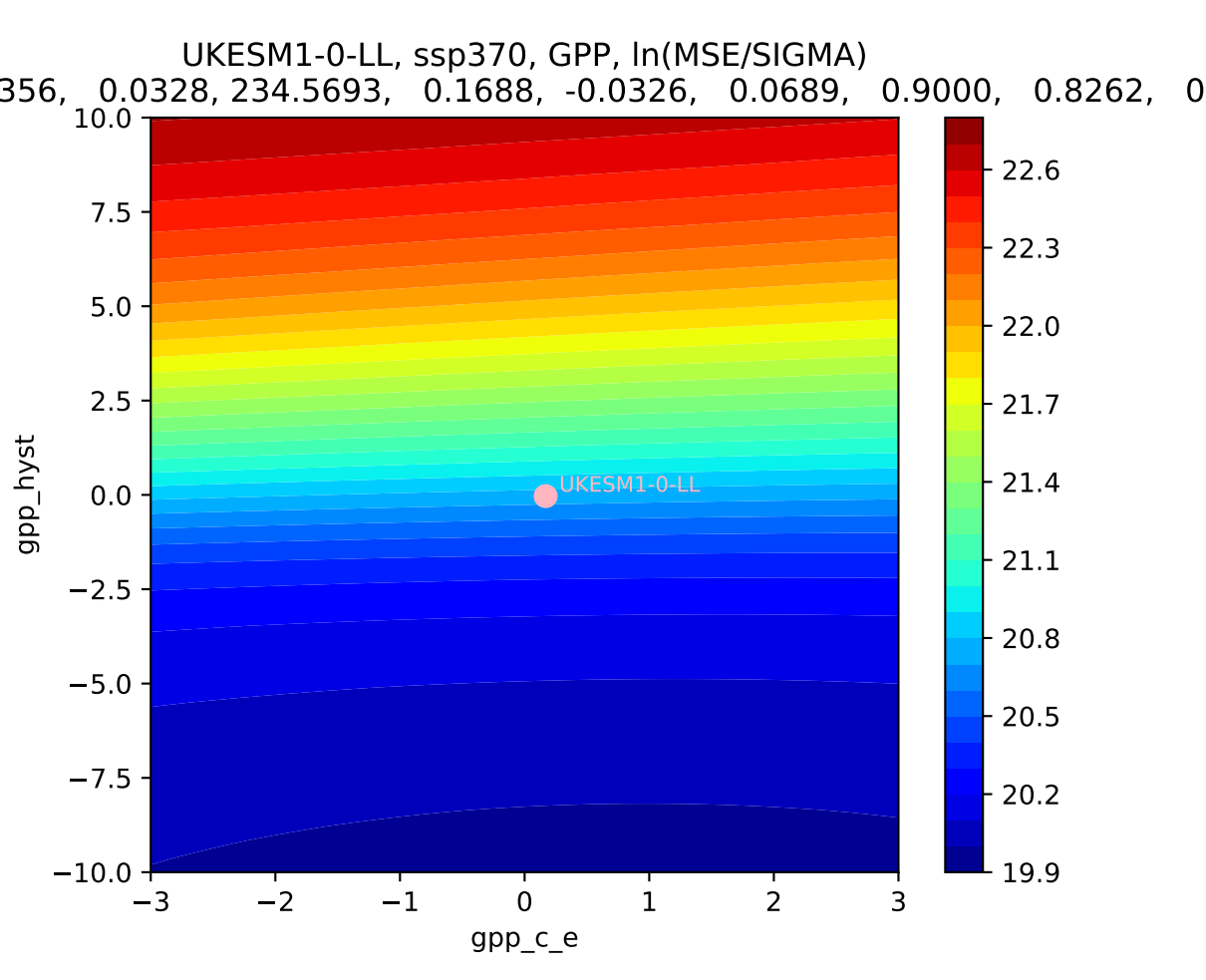

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
ΔT

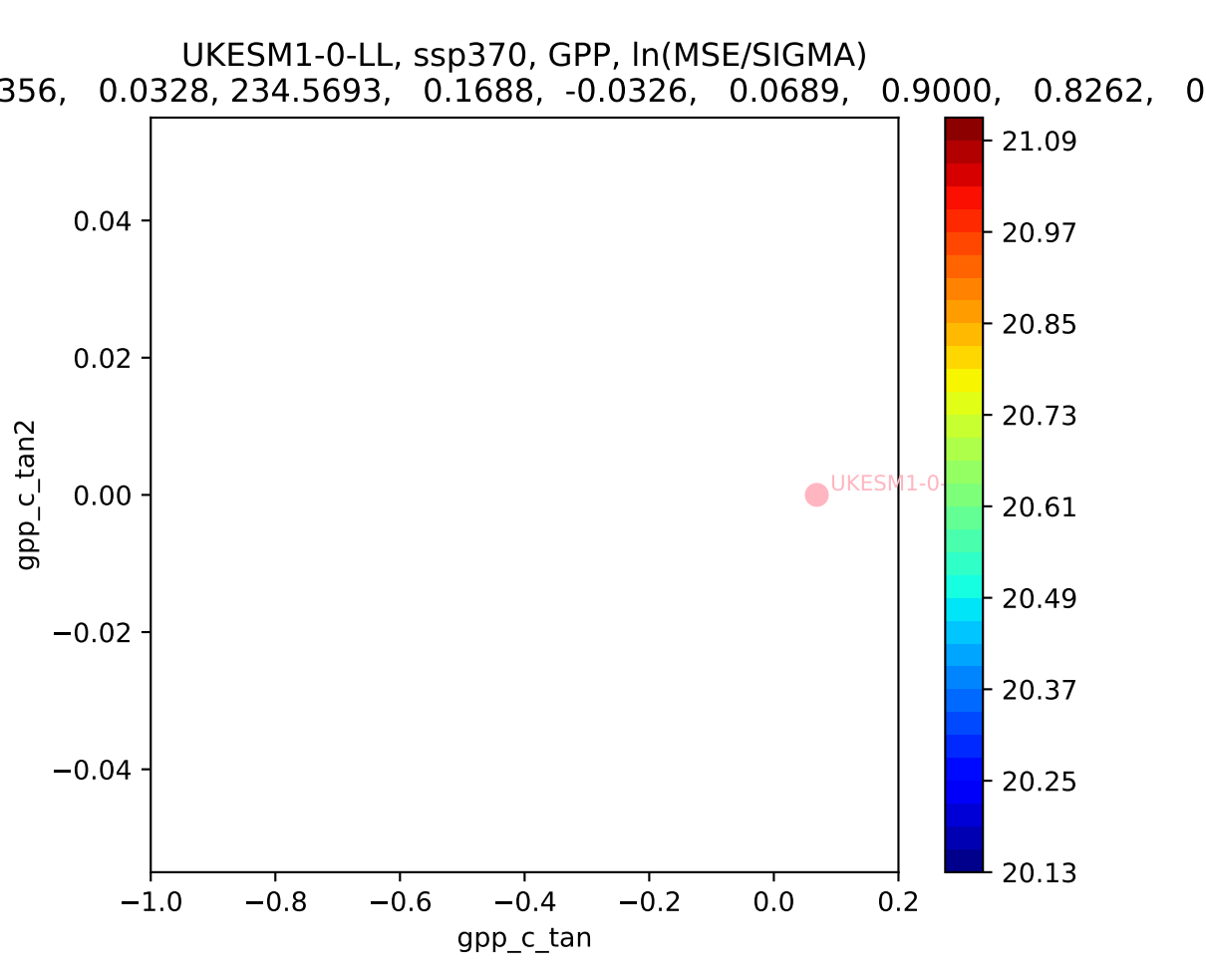

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
c_atm

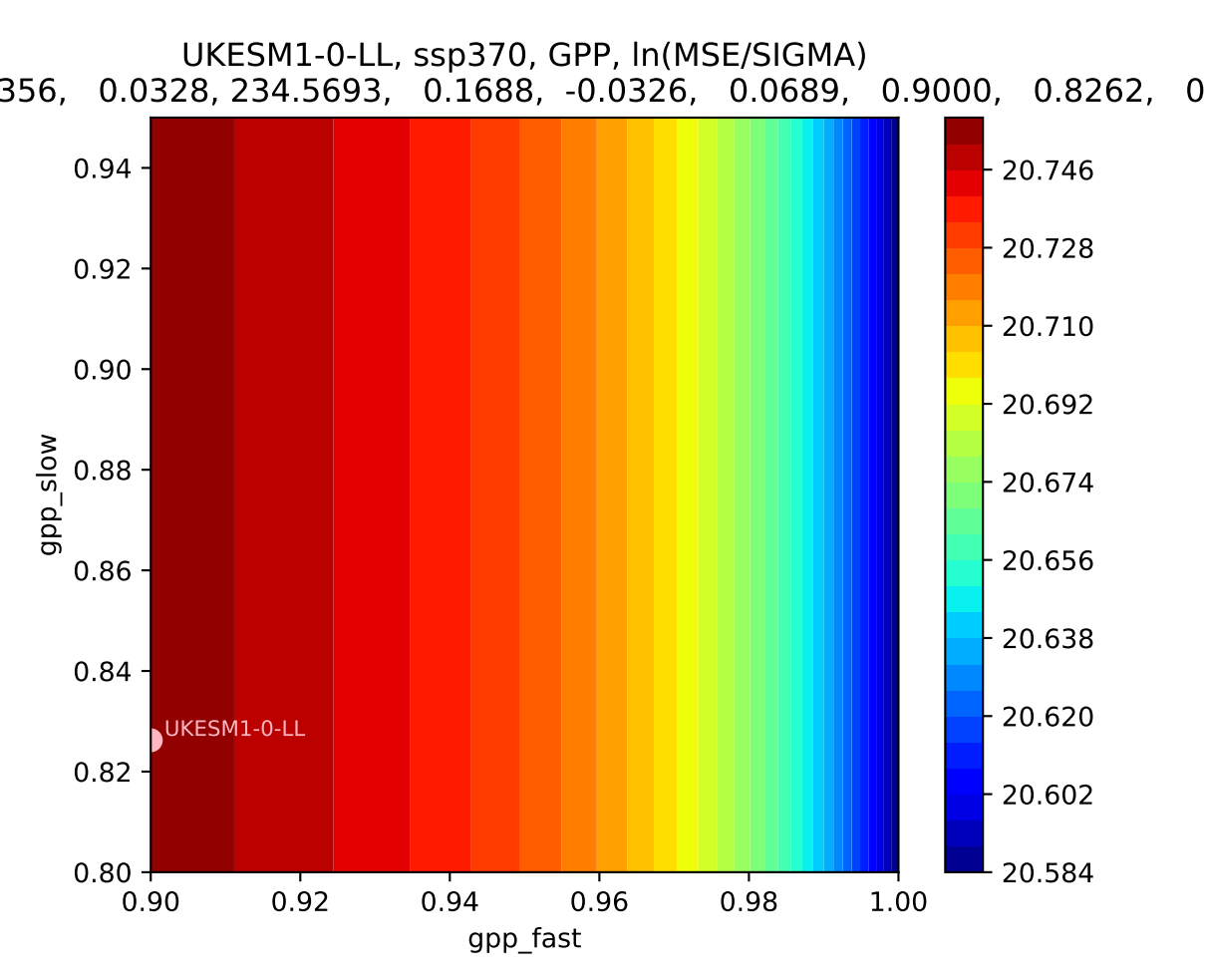

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
c_atm

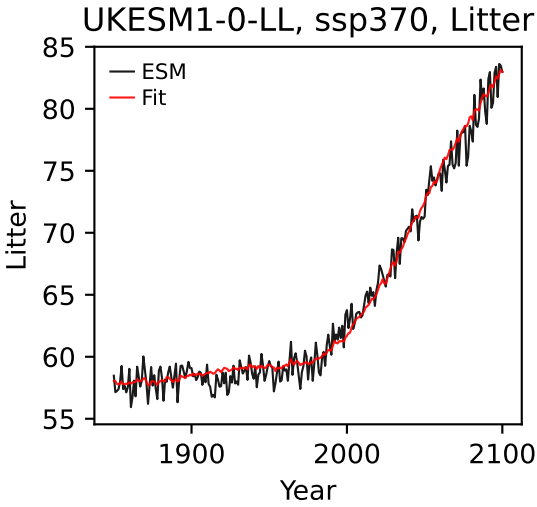

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
356, 0.0328, 234.5693, 0.1688, -0.0326, 0.0689, 0.9000, 0.8262, 0
UKESM1-0-LL
gpp_t_e
gpp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
22.65
22.20
21.75
21.30
20.85
20.40
19.95
19.50

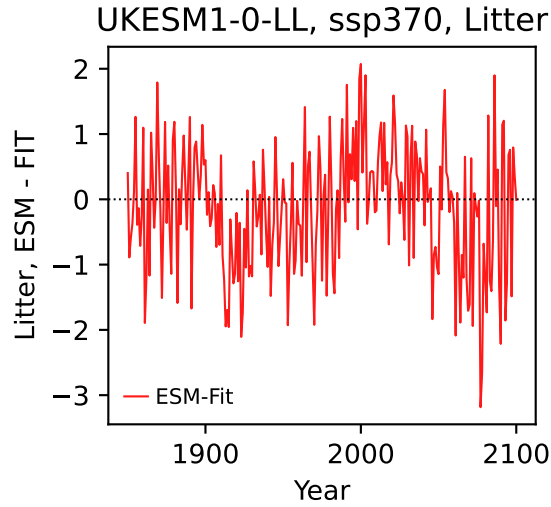

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
356, 0.0328, 234.5693, 0.1688, -0.0326, 0.0689, 0.9000, 0.8262, 0
gpp_c_half
gpp_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
21.225
21.125
21.025
20.925
20.825
20.725
20.625
20.525
20.425

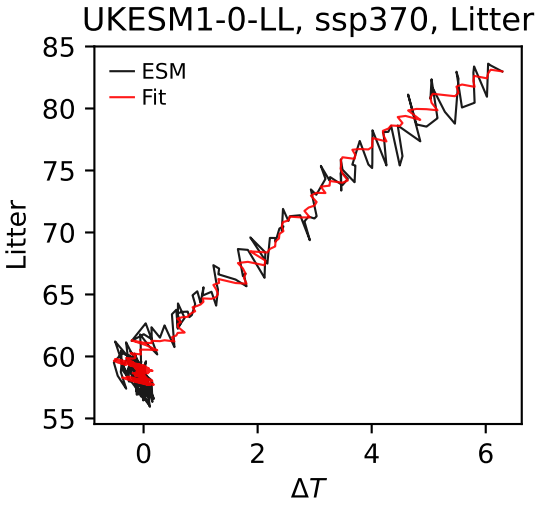

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
356, 0.0328, 234.5693, 0.1688, -0.0326, 0.0689, 0.9000, 0.8262, 0
UKESM1-0-LL
gpp_hyst
gpp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.6
22.3
22.0
21.7
21.4
21.1
20.8
20.5
20.2
19.9

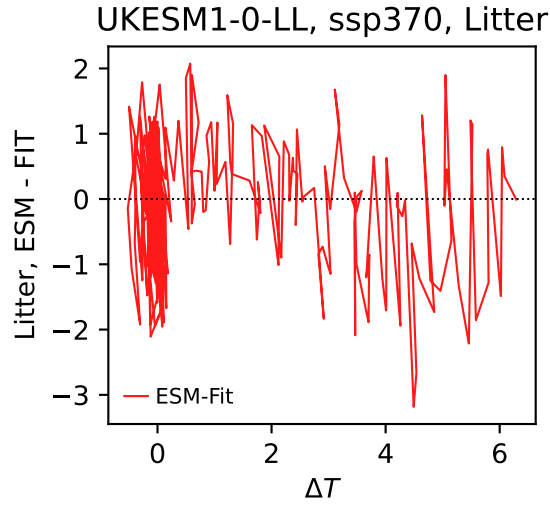

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
356, 0.0328, 234.5693, 0.1688, -0.0326, 0.0689, 0.9000, 0.8262, 0
gpp_c_tan2
gpp_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
21.09
20.97
20.85
20.73
20.61
20.49
20.37
20.25
20.13
UKESM1-0-

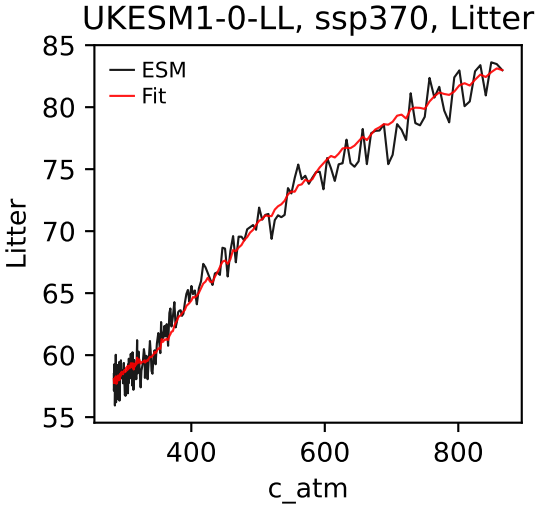

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
356, 0.0328, 234.5693, 0.1688, -0.0326, 0.0689, 0.9000, 0.8262, 0
gpp_slow
gpp_fast
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.90
0.92
0.94
0.96
0.98
1.00
UKESM1-0-LL
20.746
20.728
20.710
20.692
20.674
20.656
20.638
20.620
20.602
20.584

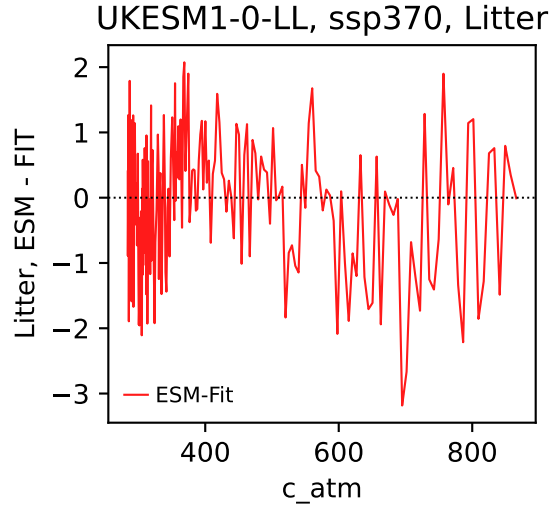

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
Year

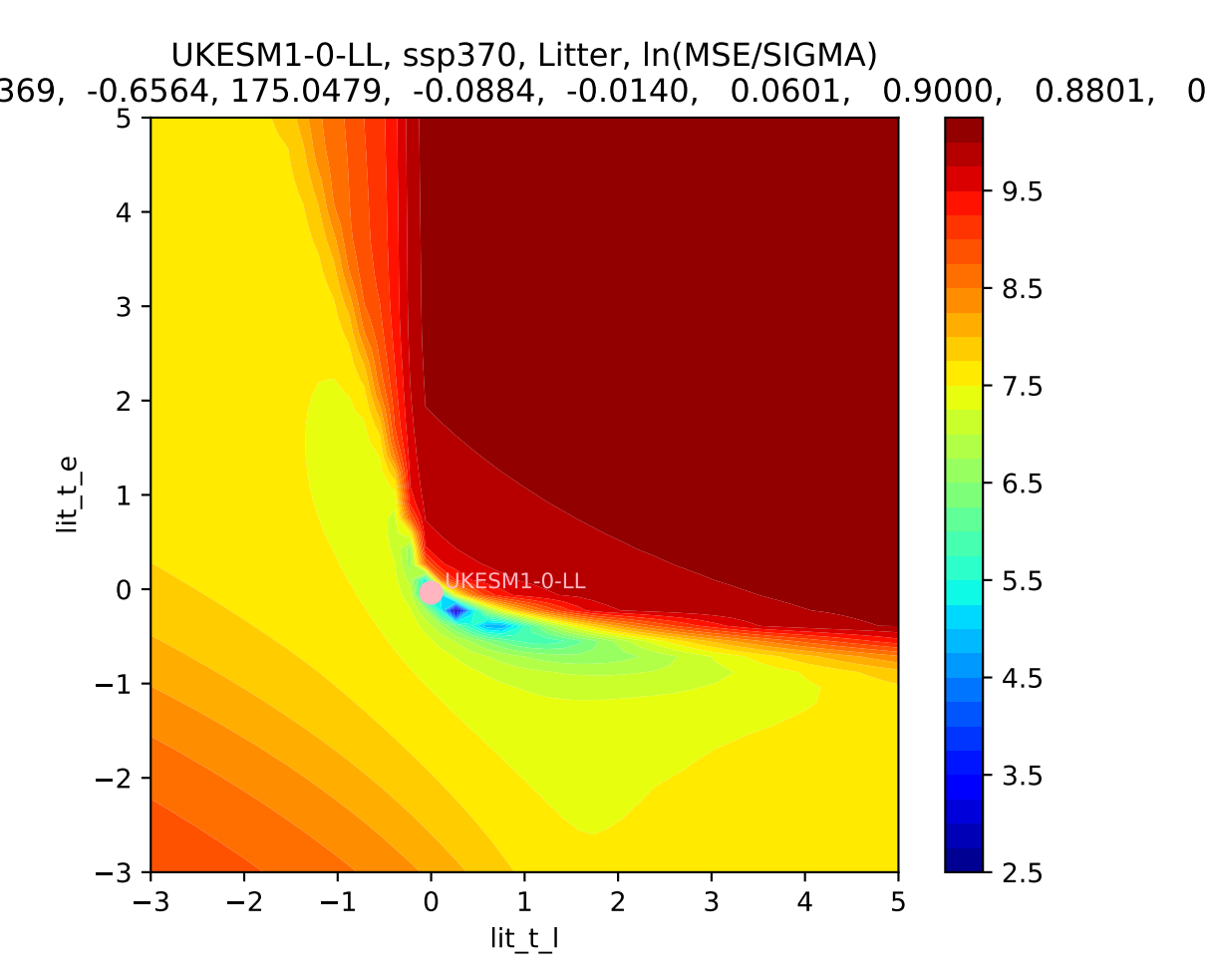

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
Year

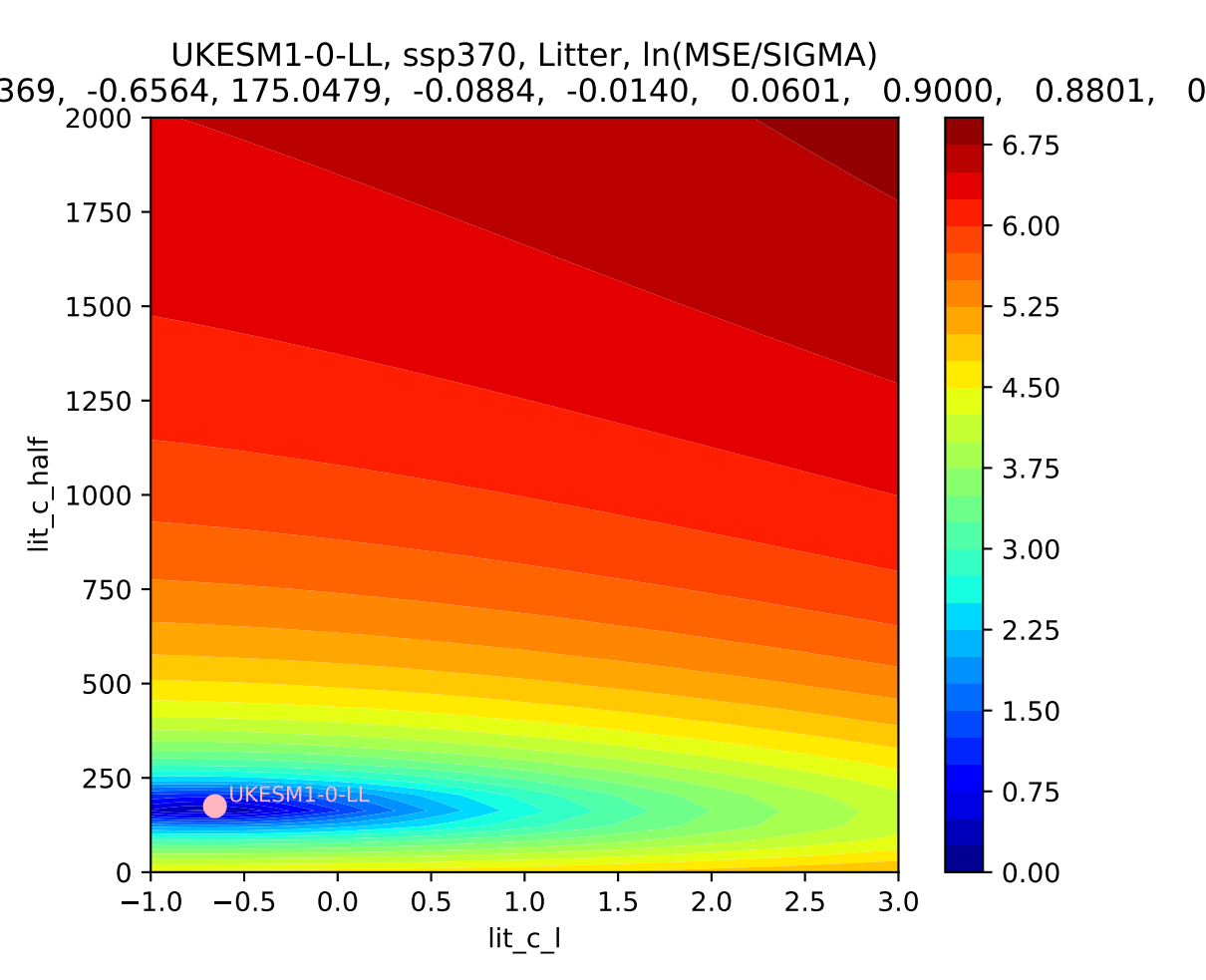

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
ΔT

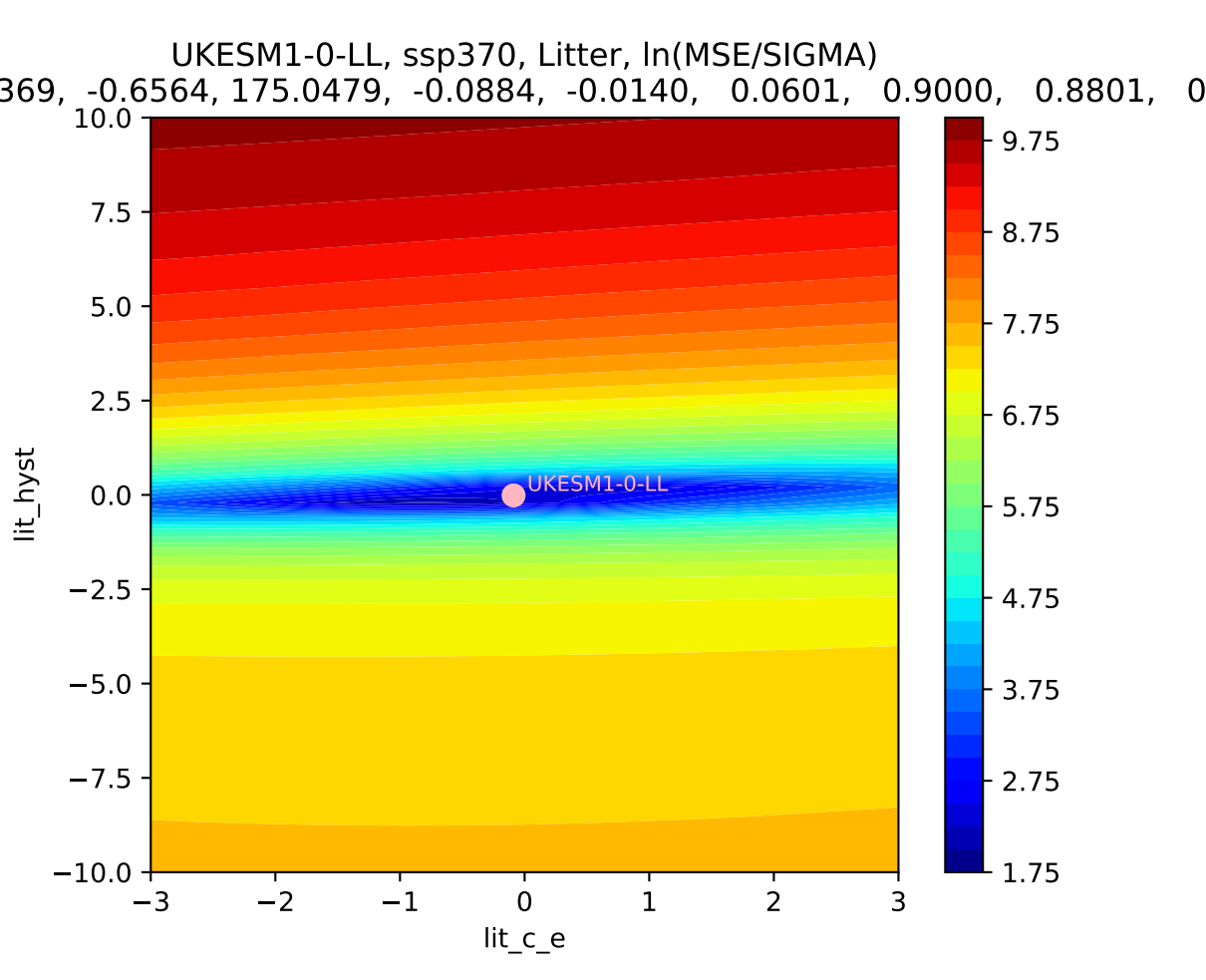

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
ΔT

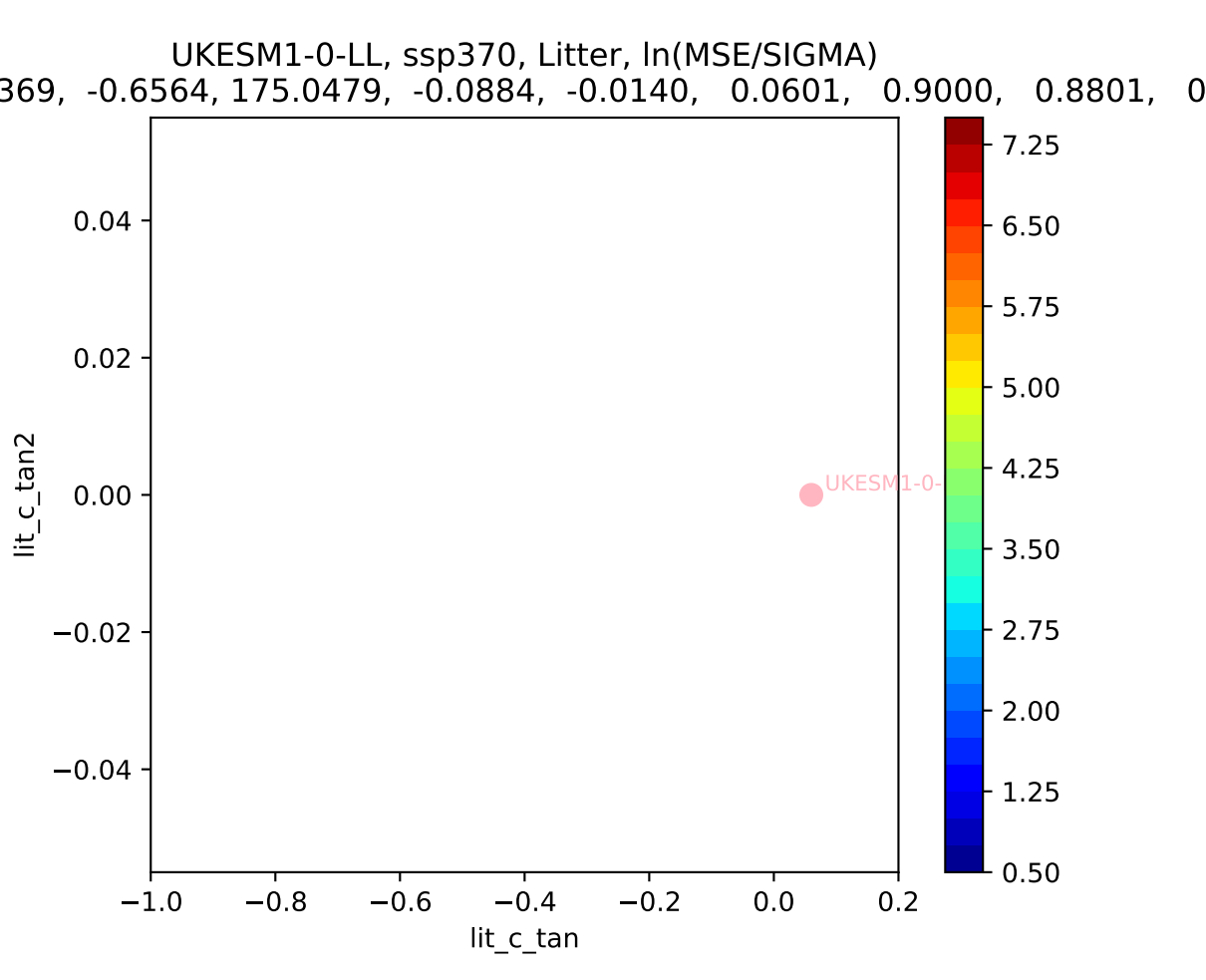

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
c_atm

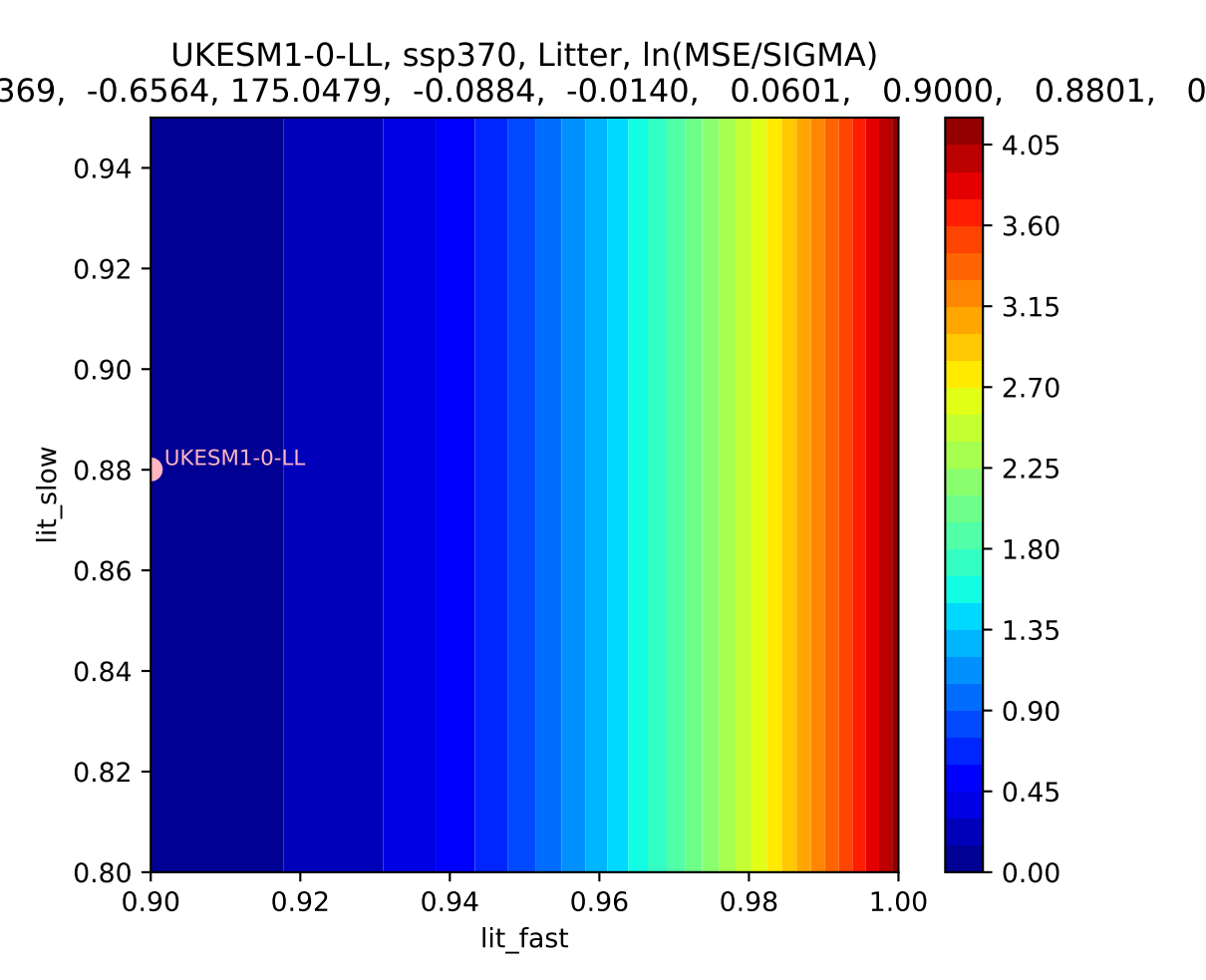

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
c_atm

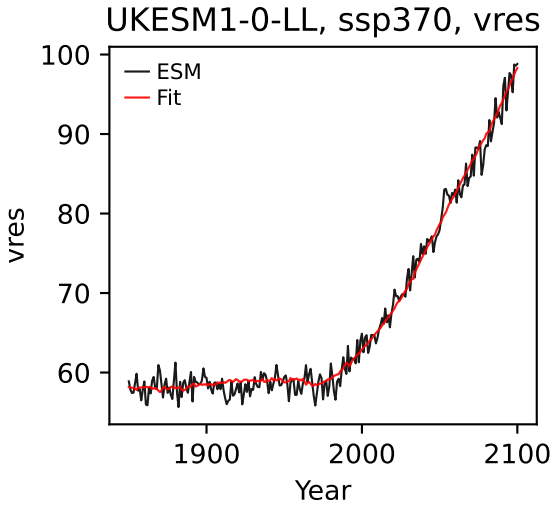

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
369, -0.6564, 175.0479, -0.0884, -0.0140, 0.0601, 0.9000, 0.8801, 0
UKESM1-0-LL
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
9.5
8.5
7.5
6.5
5.5
4.5
3.5
2.5

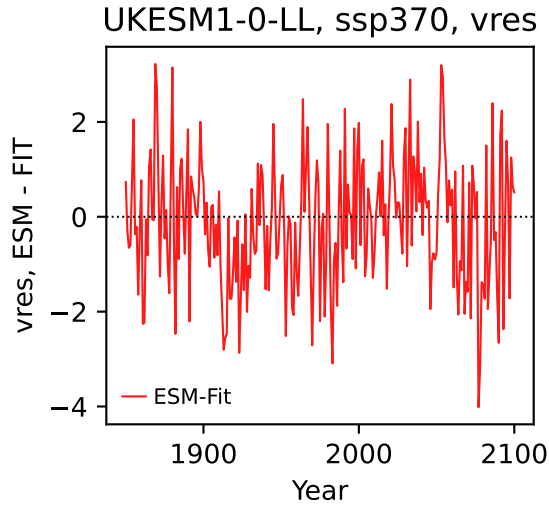

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
369, -0.6564, 175.0479, -0.0884, -0.0140, 0.0601, 0.9000, 0.8801, 0
lit_c_half
lit_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
6.75
6.00
5.25
4.50
3.75
3.00
2.25
1.50
0.75
0.00

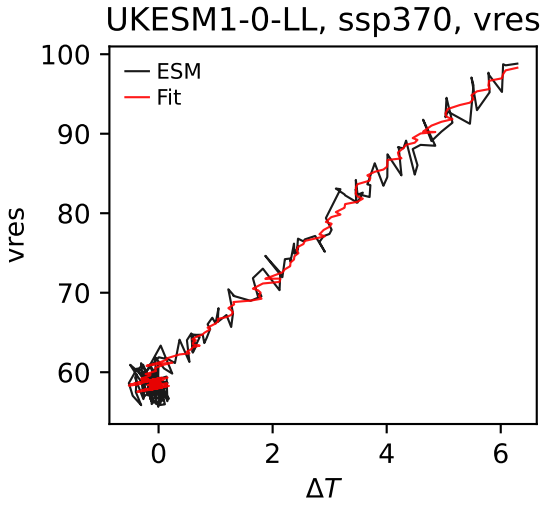

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
369, -0.6564, 175.0479, -0.0884, -0.0140, 0.0601, 0.9000, 0.8801, 0
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
lit_hyst
UKESM1-0-LL
−3
−2
−1
0
1
2
3
lit_c_e
9.75
8.75
7.75
6.75
5.75
4.75
3.75
2.75
1.75

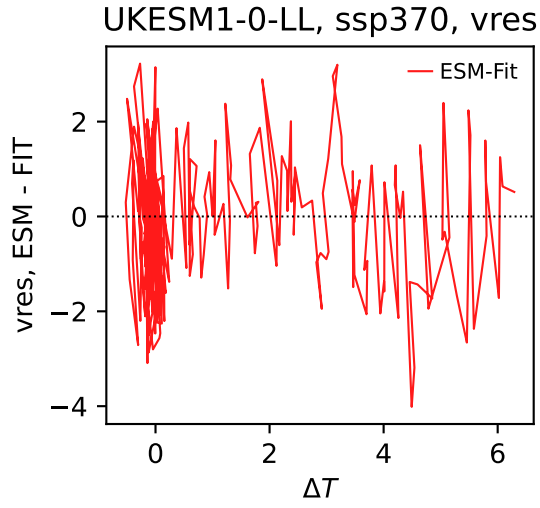

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
369, -0.6564, 175.0479, -0.0884, -0.0140, 0.0601, 0.9000, 0.8801, 0
0.04
0.02
0.00
−0.02
−0.04
lit_c_tan2
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
lit_c_tan
7.25
6.50
5.75
5.00
4.25
3.50
2.75
2.00
1.25
0.50

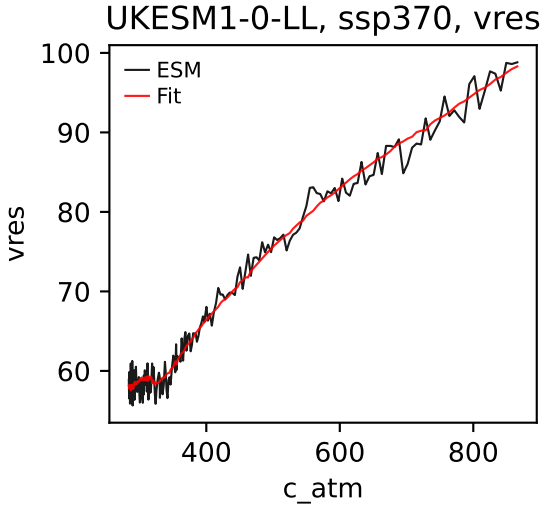

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
369, -0.6564, 175.0479, -0.0884, -0.0140, 0.0601, 0.9000, 0.8801, 0
UKESM1-0-LL
lit_slow
lit_fast
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.90
0.92
0.94
0.96
0.98
1.00
4.05
3.60
3.15
2.70
2.25
1.80
1.35
0.90
0.45
0.00

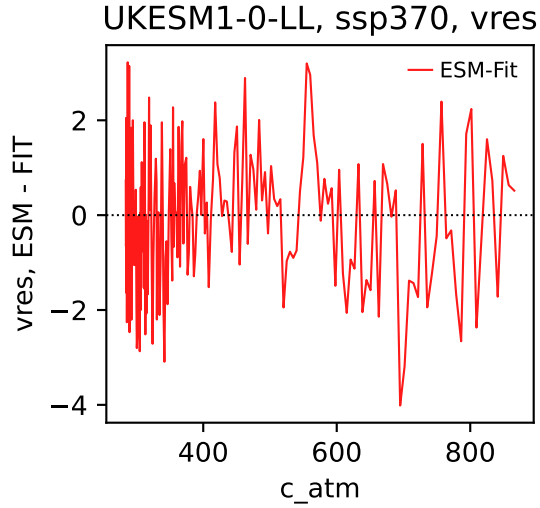

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
Year

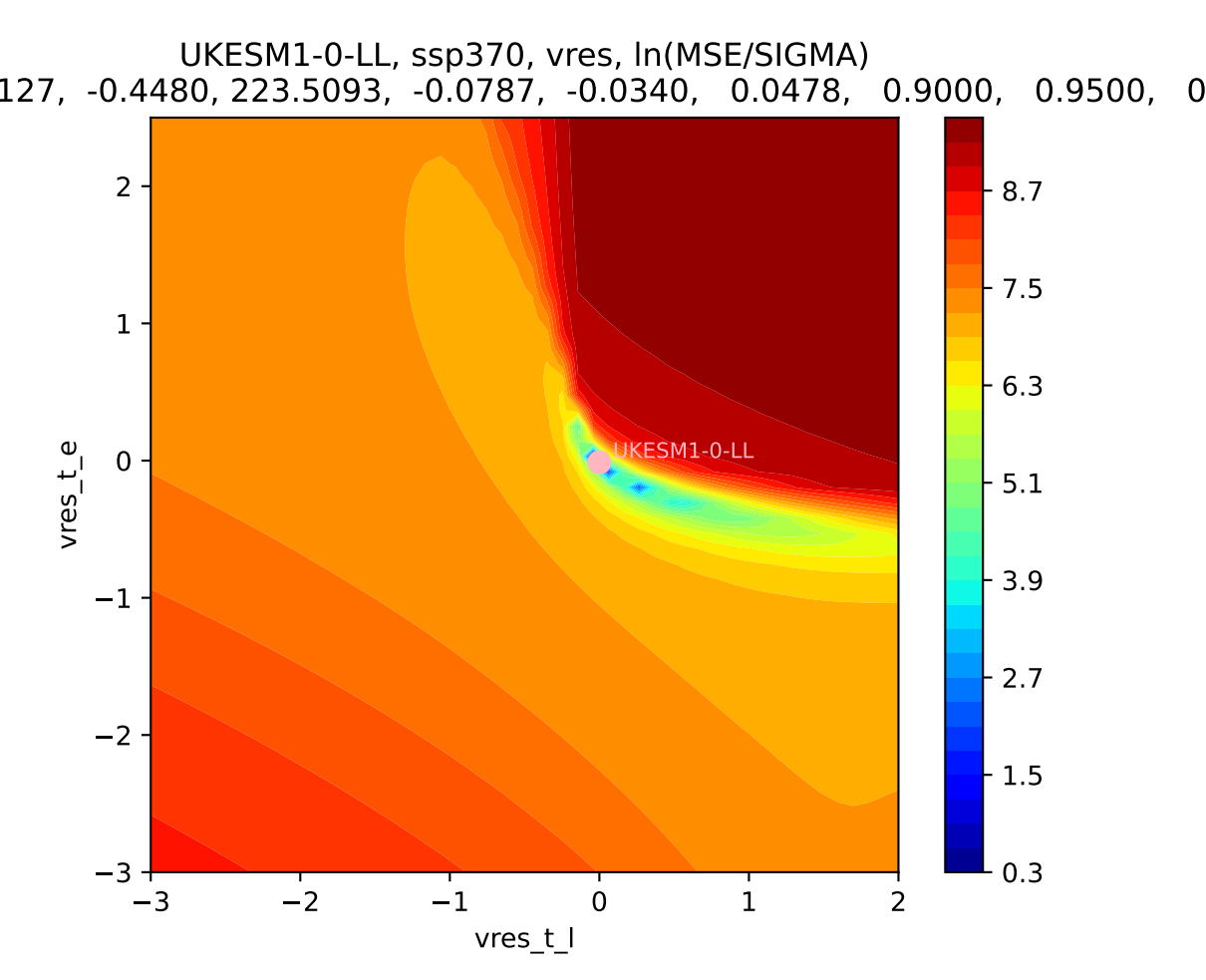

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
Year

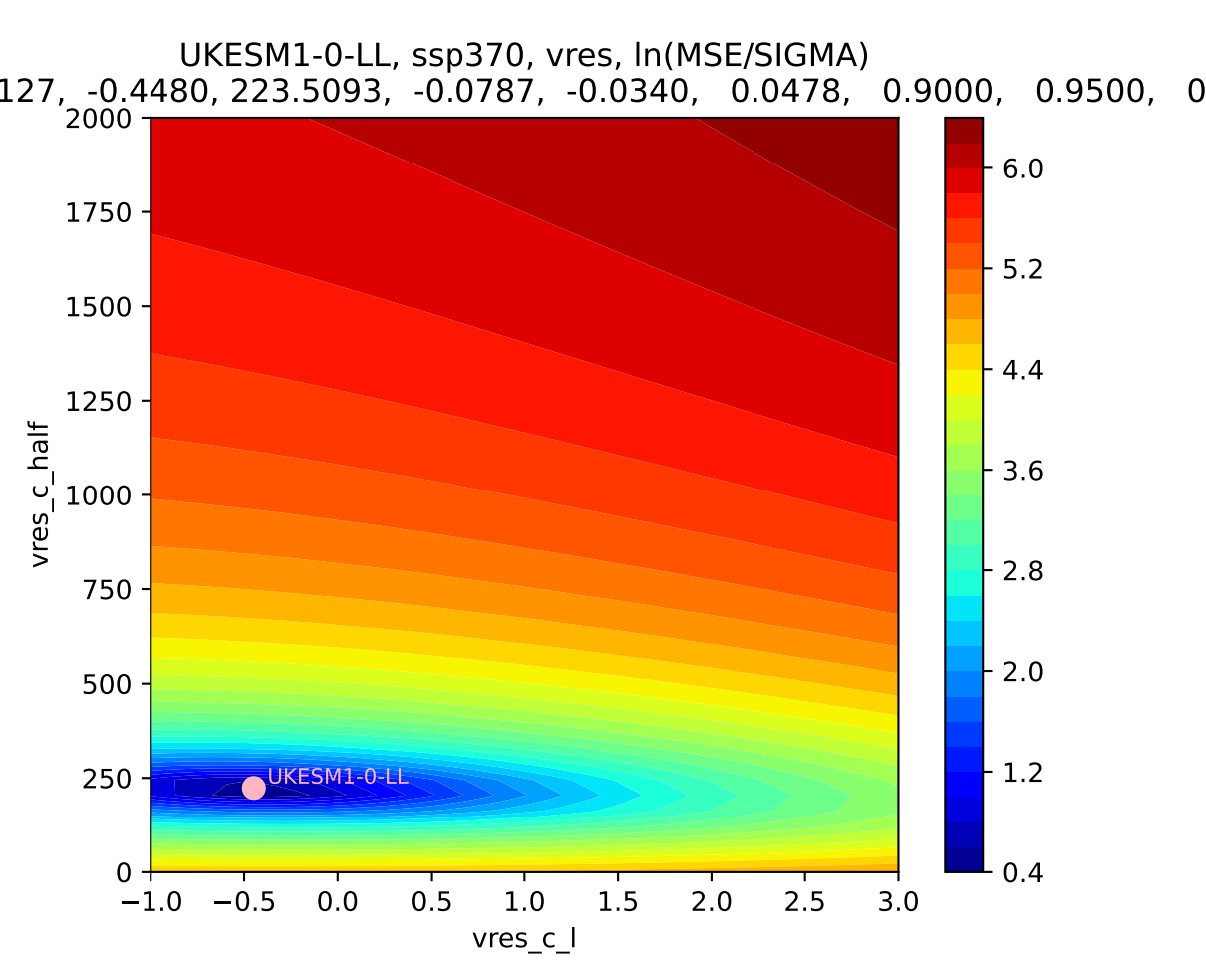

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
ΔT

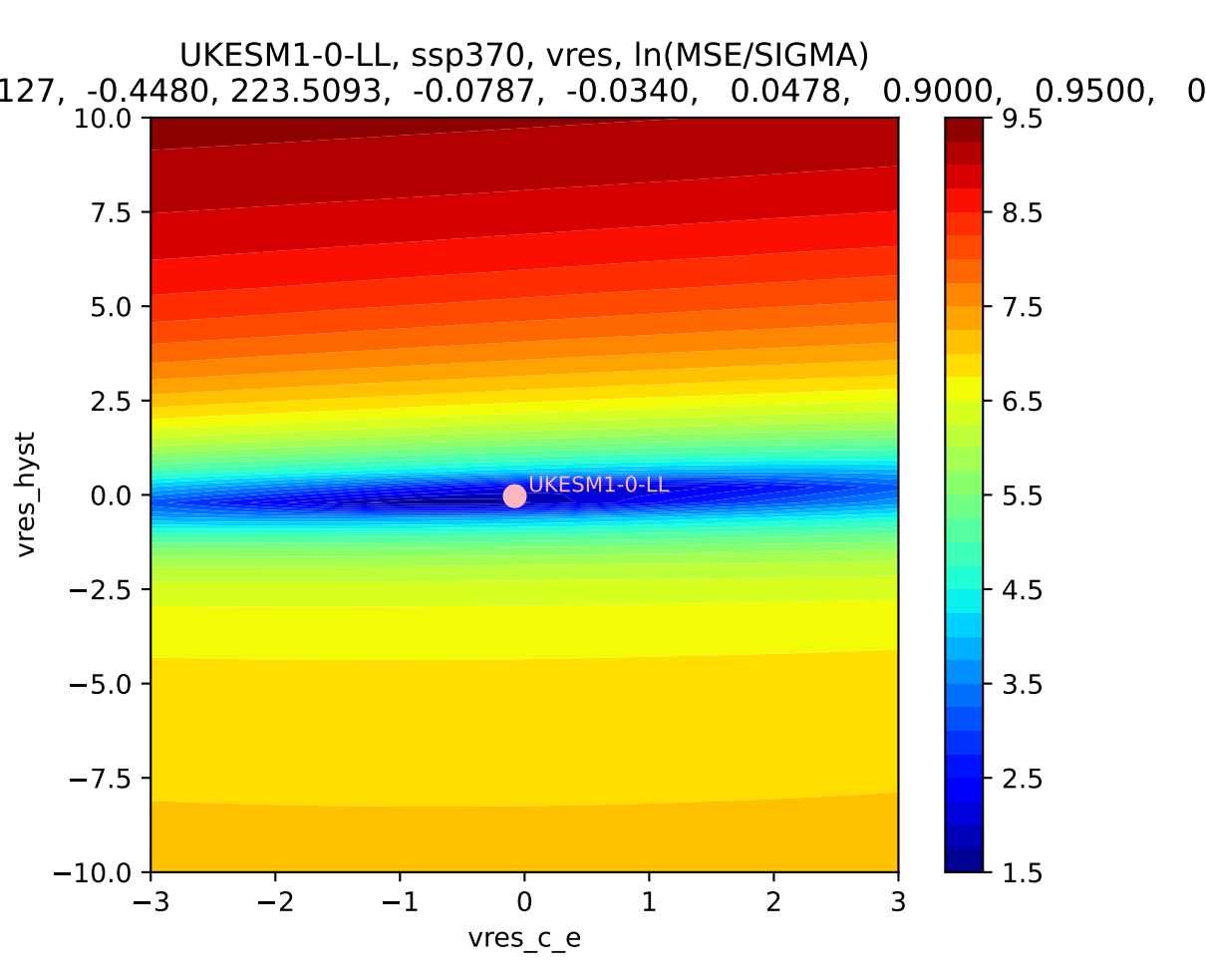

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
ΔT

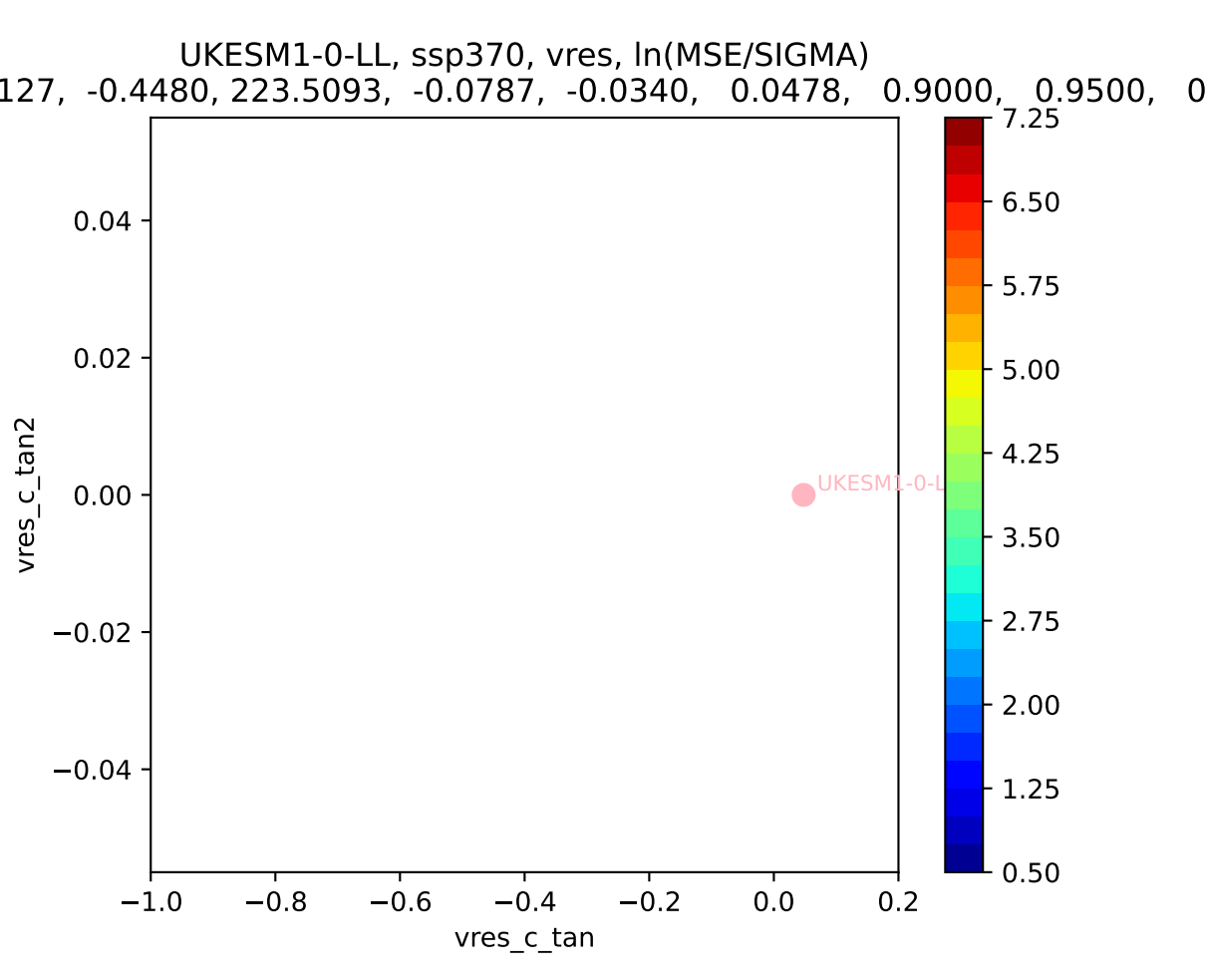

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
c_atm

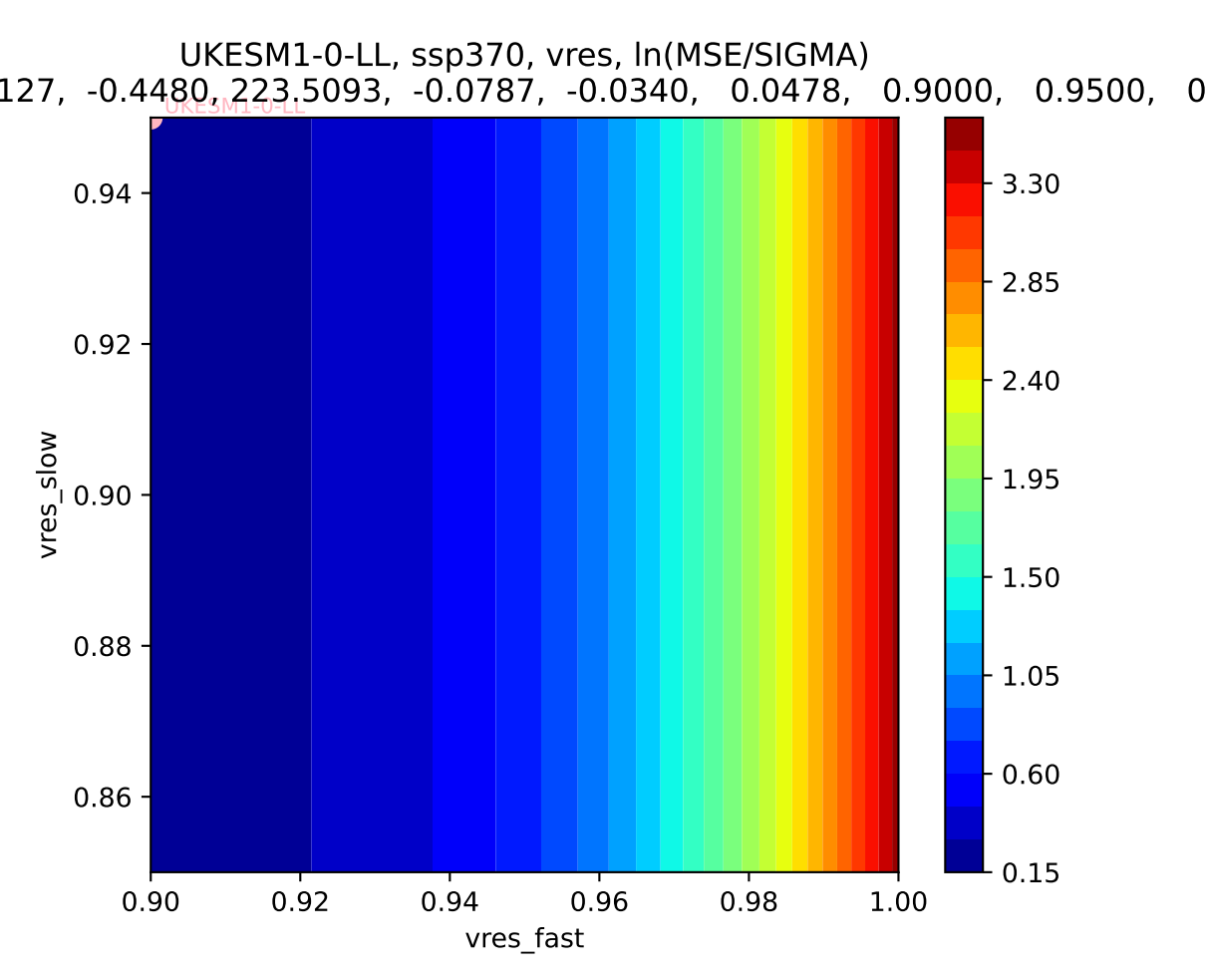

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
c_atm

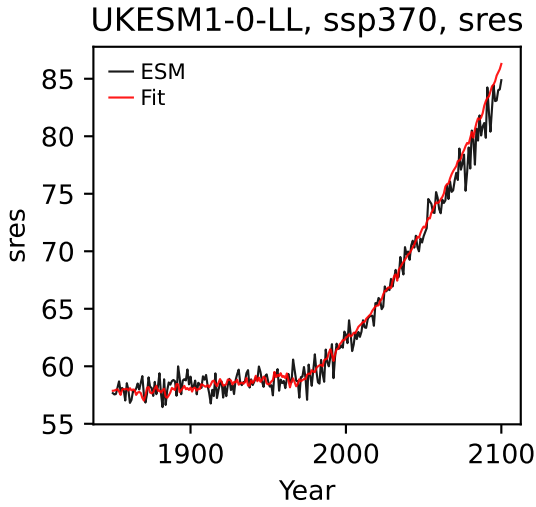

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
127, -0.4480, 223.5093, -0.0787, -0.0340, 0.0478, 0.9000, 0.9500, 0
UKESM1-0-LL
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
8.7
7.5
6.3
5.1
3.9
2.7
1.5
0.3

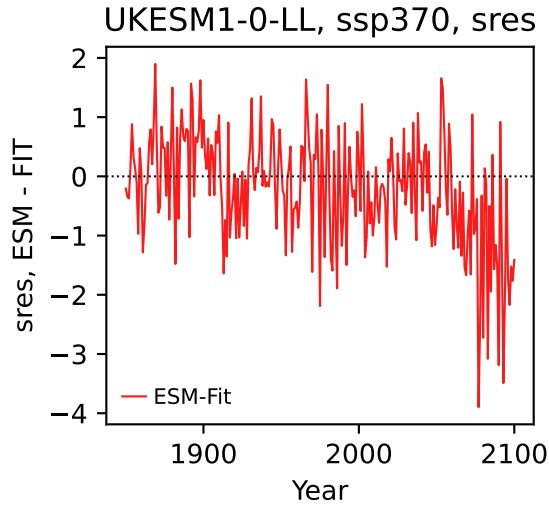

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
127, -0.4480, 223.5093, -0.0787, -0.0340, 0.0478, 0.9000, 0.9500, 0
2000
1750
1500
1250
1000
750
500
250
0
vres_c_half
UKESM1-0-LL
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
vres_c_l
6.0
5.2
4.4
3.6
2.8
2.0
1.2
0.4

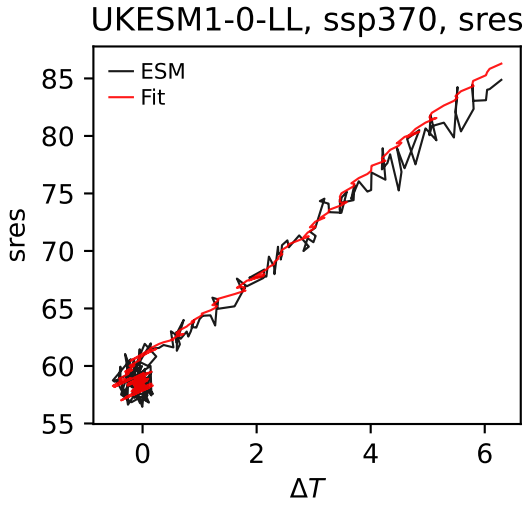

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
127, -0.4480, 223.5093, -0.0787, -0.0340, 0.0478, 0.9000, 0.9500, 0
UKESM1-0-LL
vres_hyst
vres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
9.5
8.5
7.5
6.5
5.5
4.5
3.5
2.5
1.5

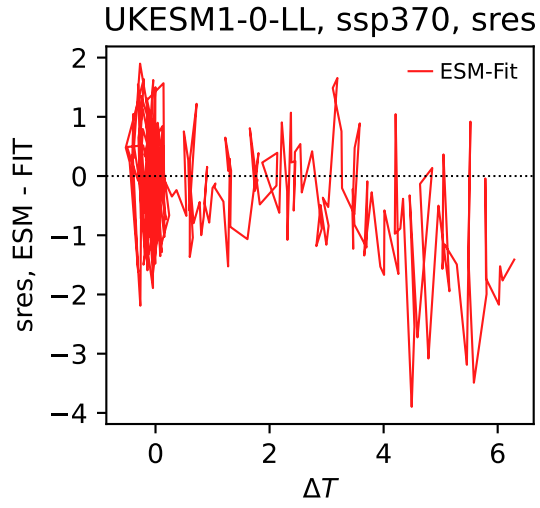

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
127, -0.4480, 223.5093, -0.0787, -0.0340, 0.0478, 0.9000, 0.9500, 0
0.04
0.02
0.00
−0.02
−0.04
vres_c_tan2
UKESM1-0-L
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
vres_c_tan
7.25
6.50
5.75
5.00
4.25
3.50
2.75
2.00
1.25
0.50

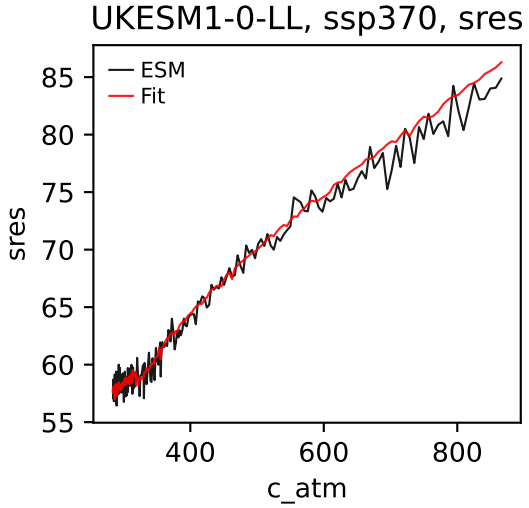

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
127, -0.4480, 223.5093, -0.0787, -0.0340, 0.0478, 0.9000, 0.9500, 0
UKESM1-0-LL
0.94
0.92
0.90
0.88
0.86
vres_slow
0.90
0.92
0.94
0.96
0.98
1.00
vres_fast
3.30
2.85
2.40
1.95
1.50
1.05
0.60
0.15

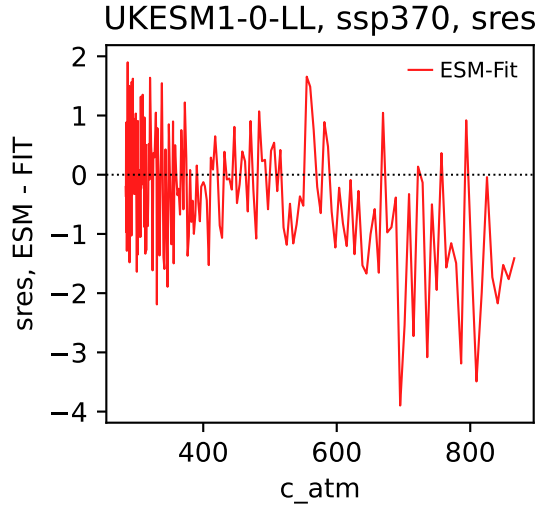

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
Year

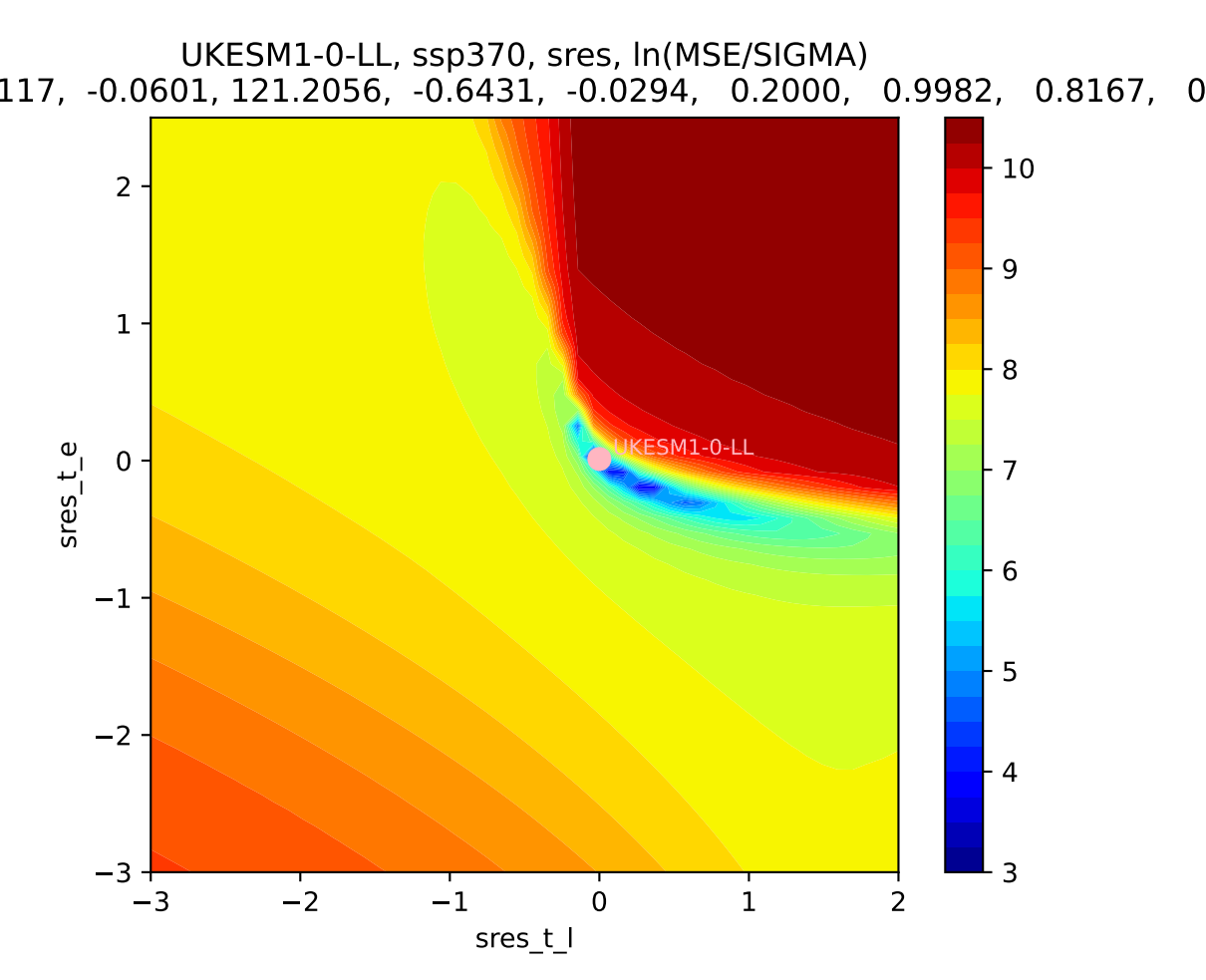

UKESM1-0-LL, ssp370, sres
sres, ESM - FIT
ESM-Fit
Year

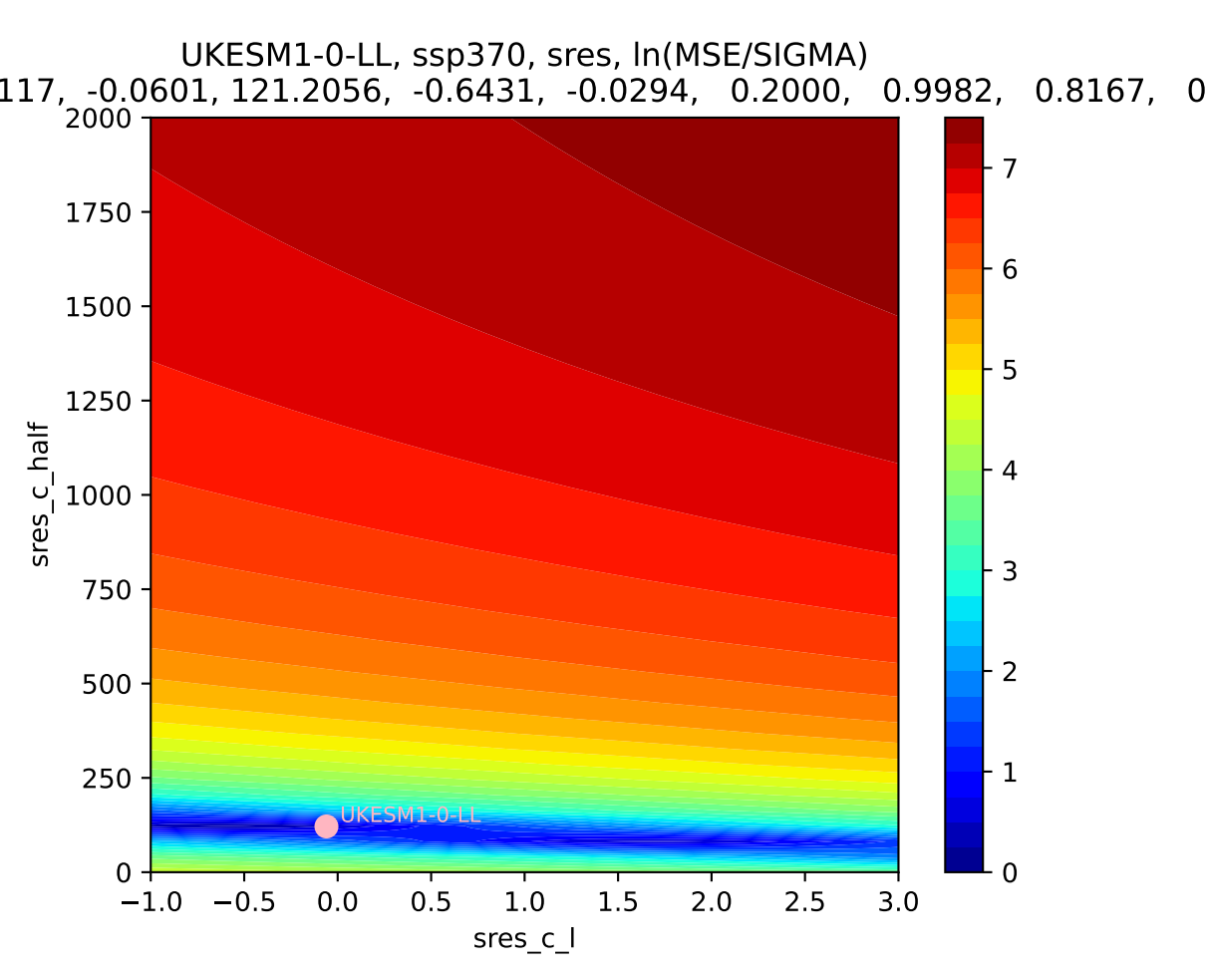

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
ΔT

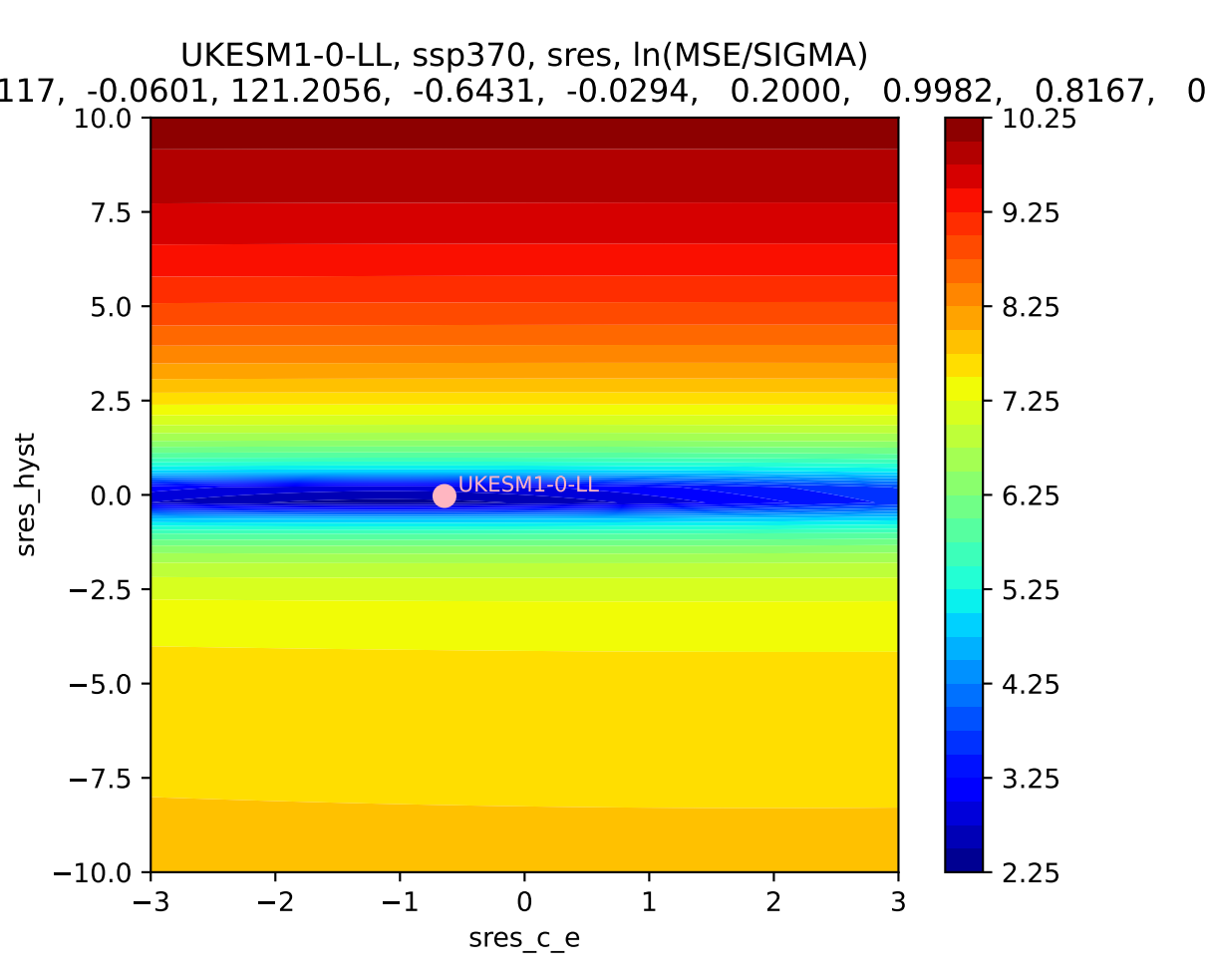

UKESM1-0-LL, ssp370, sres
sres, ESM - FIT
ESM-Fit
ΔT

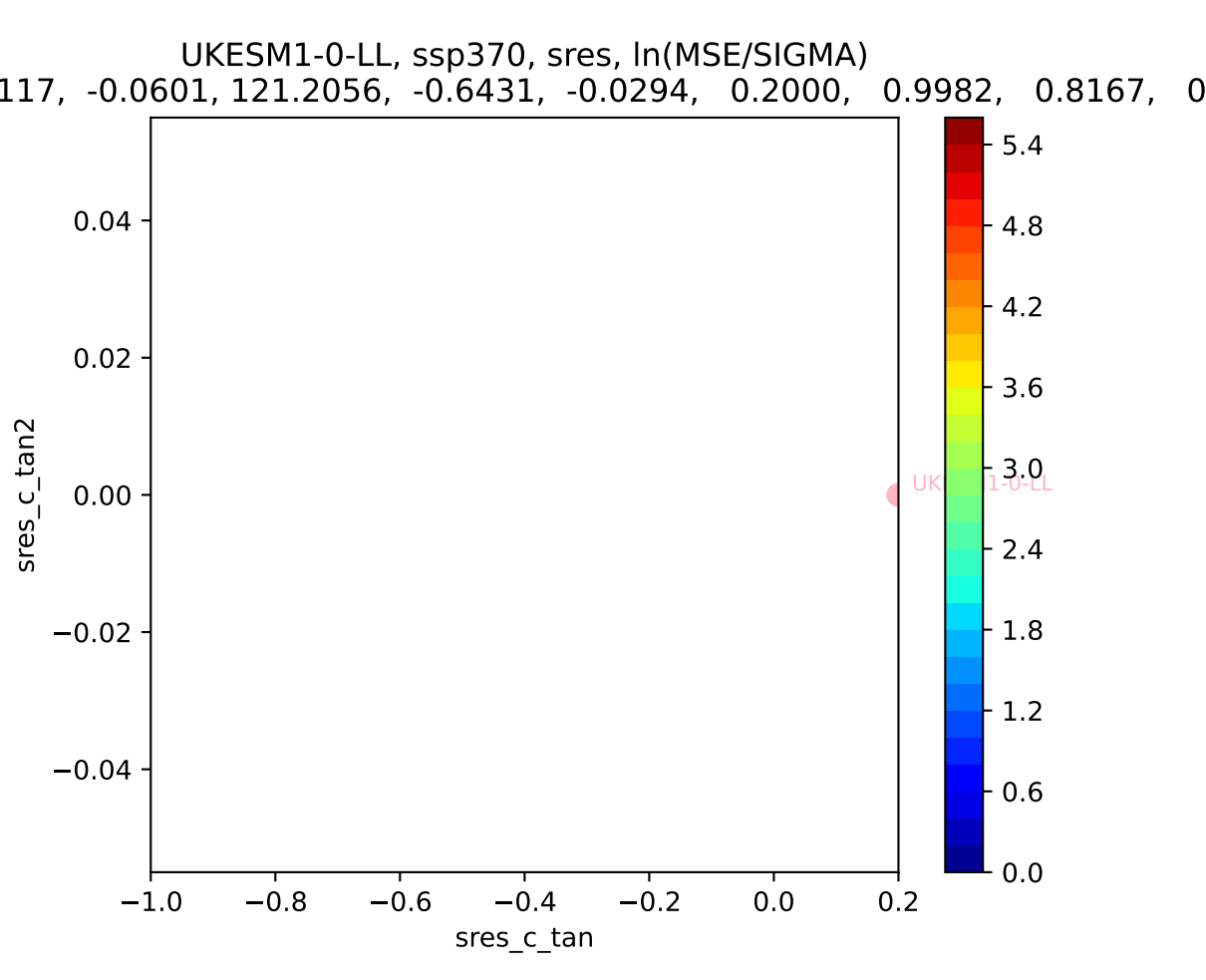

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
c_atm

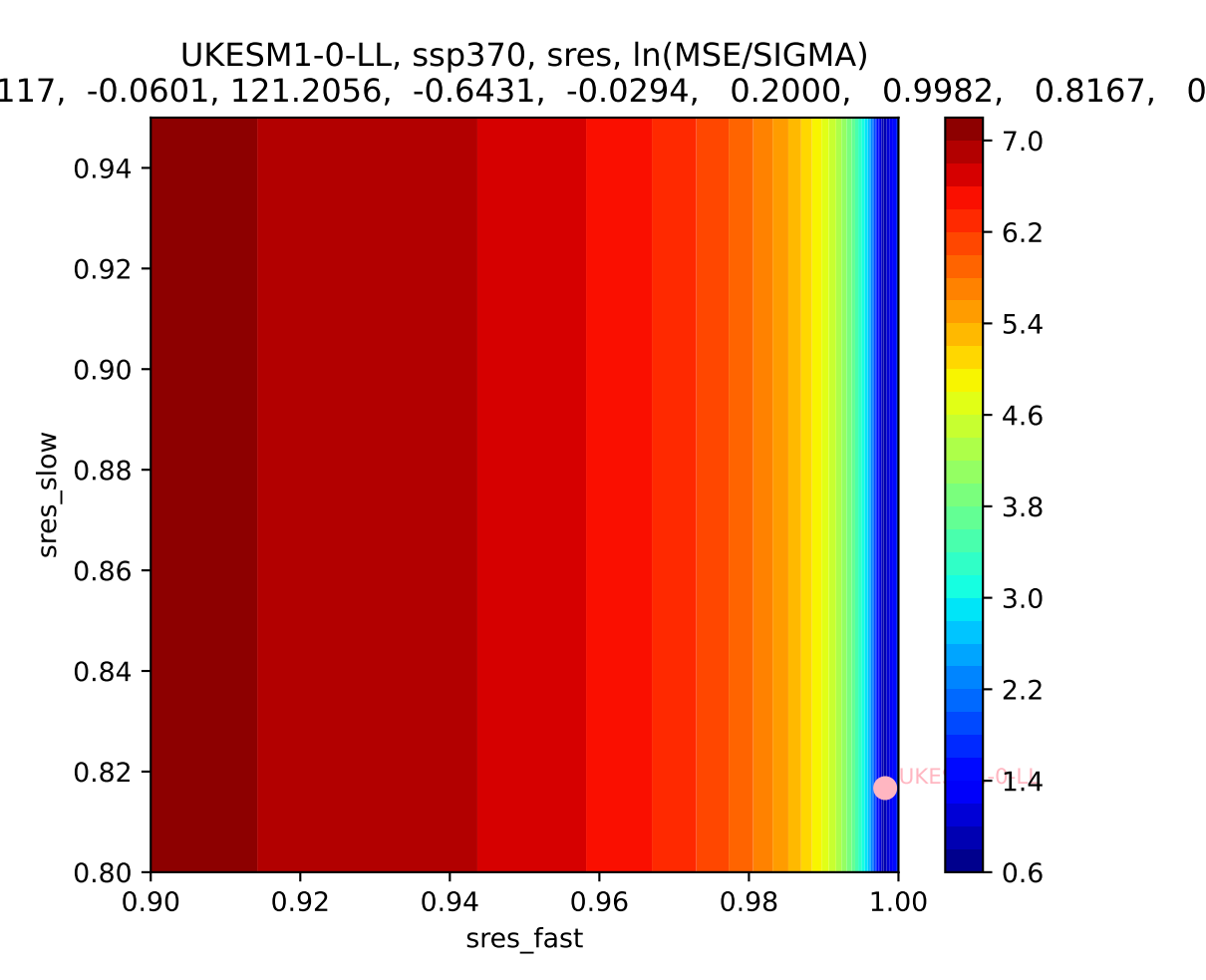

UKESM1-0-LL, ssp370, sres
sres, ESM - FIT
ESM-Fit
c_atm

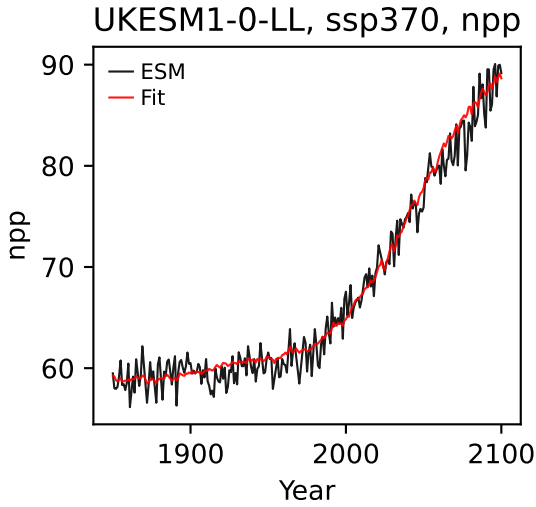

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
117, -0.0601, 121.2056, -0.6431, -0.0294, 0.2000, 0.9982, 0.8167, 0
UKESM1-0-LL
sres_t_e
sres_t_l
2
1
0
−1
−2
−3
10
9
8
7
6
5
4
3

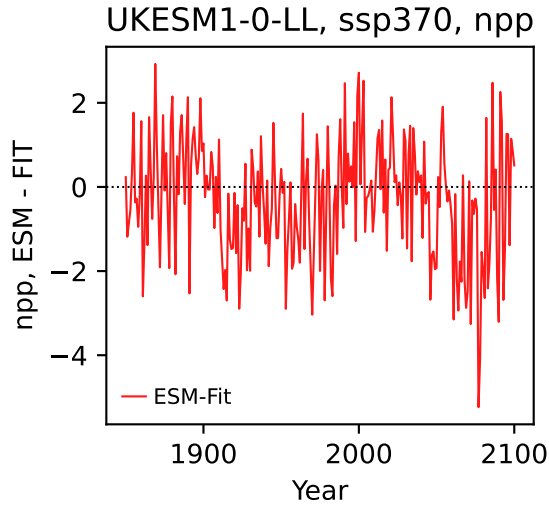

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
117, -0.0601, 121.2056, -0.6431, -0.0294, 0.2000, 0.9982, 0.8167, 0
sres_c_half
sres_c_l
UKESM1-0-LL
2000
1750
1500
1250
1000
750
500
250
0
−1.0
−0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
7
6
5
4
3
2
1
0

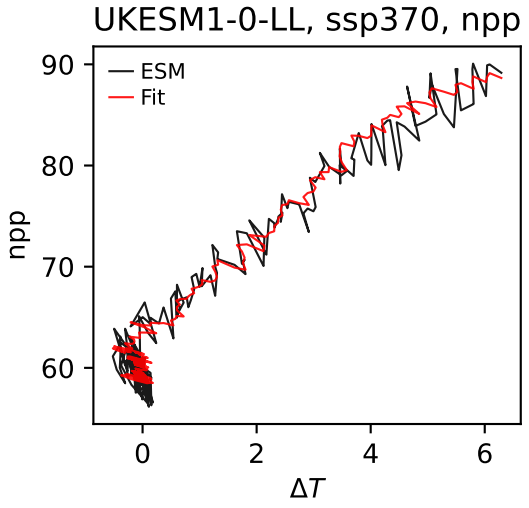

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
117, -0.0601, 121.2056, -0.6431, -0.0294, 0.2000, 0.9982, 0.8167, 0
UKESM1-0-LL
sres_hyst
sres_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
10.25
9.25
8.25
7.25
6.25
5.25
4.25
3.25
2.25

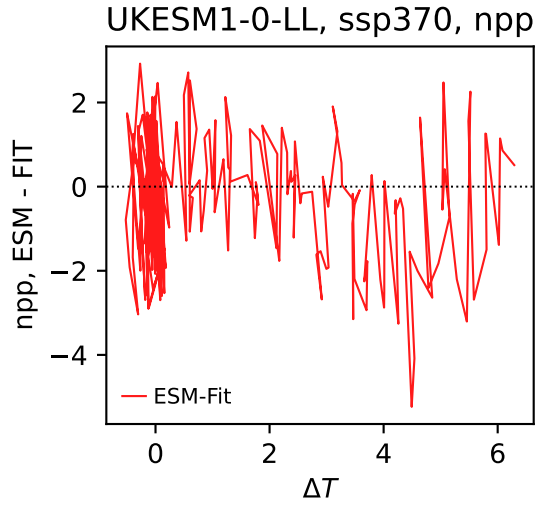

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
117, -0.0601, 121.2056, -0.6431, -0.0294, 0.2000, 0.9982, 0.8167, 0
sres_c_tan2
sres_c_tan
0.04
0.02
0.00
−0.02
−0.04
−1.0
−0.8
−0.6
−0.4
−0.2
0.0
0.2
5.4
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6
0.0

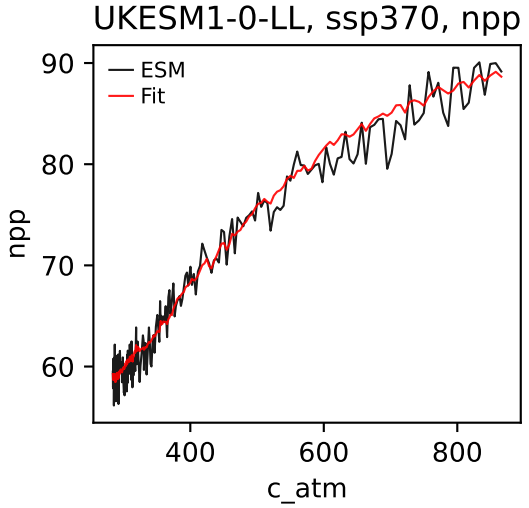

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
117, -0.0601, 121.2056, -0.6431, -0.0294, 0.2000, 0.9982, 0.8167, 0
sres_slow
sres_fast
0.80
0.82
0.84
0.86
0.88
0.90
0.92
0.94
0.90
0.92
0.94
0.96
0.98
1.00
7.0
6.2
5.4
4.6
3.8
3.0
2.2
1.4
0.6

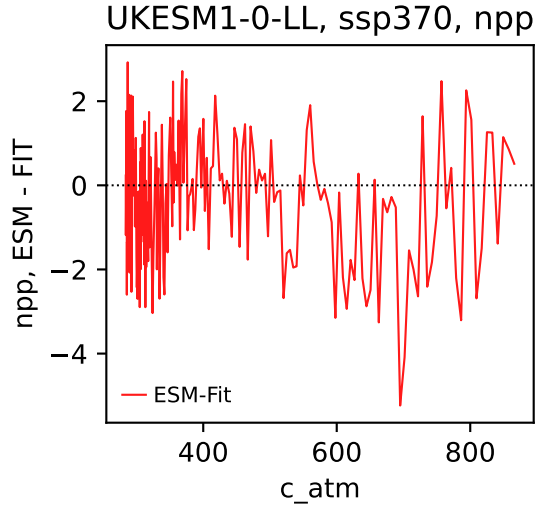

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
Year

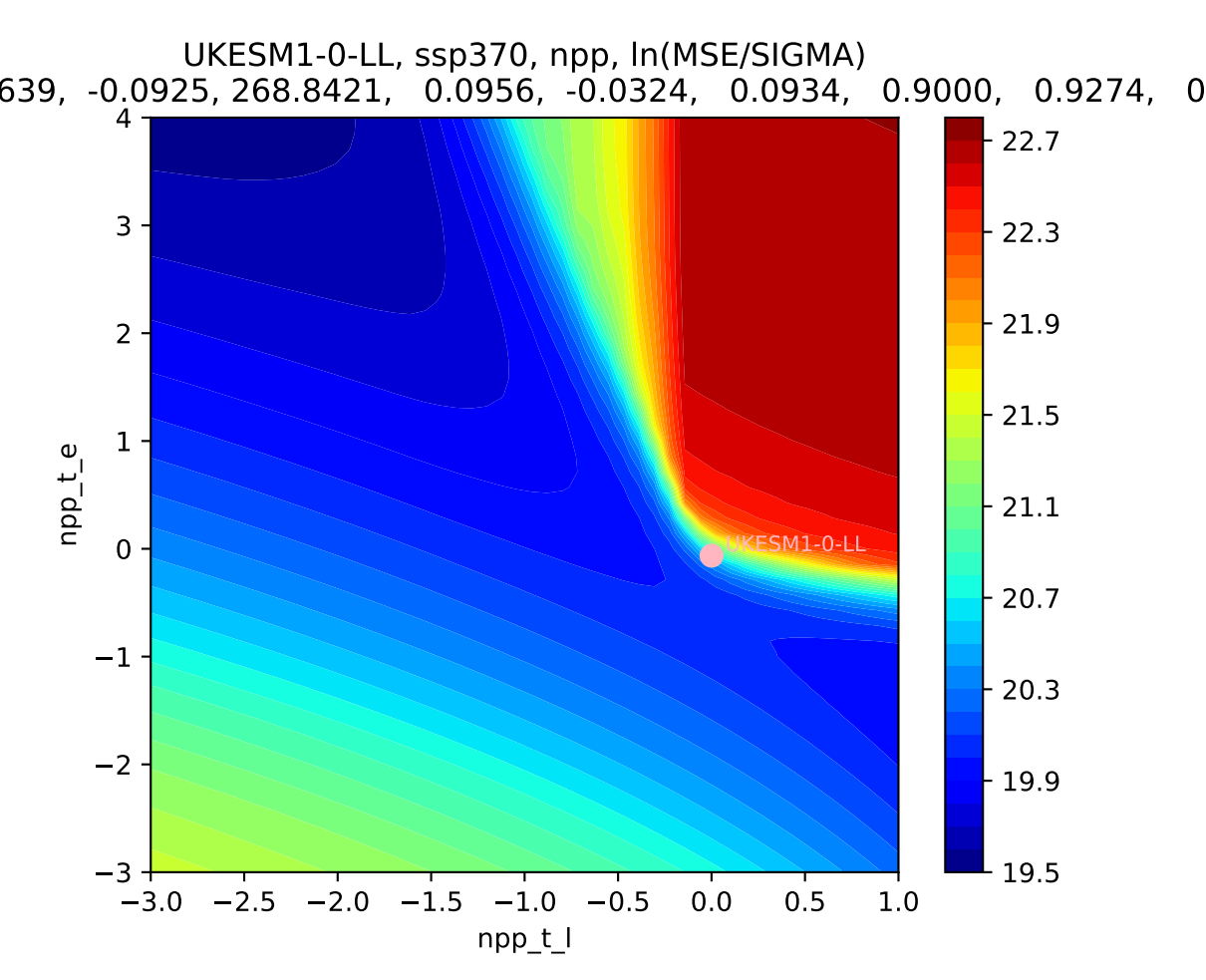

UKESM1-0-LL, ssp370, npp
npp, ESM - FIT
ESM-Fit
Year

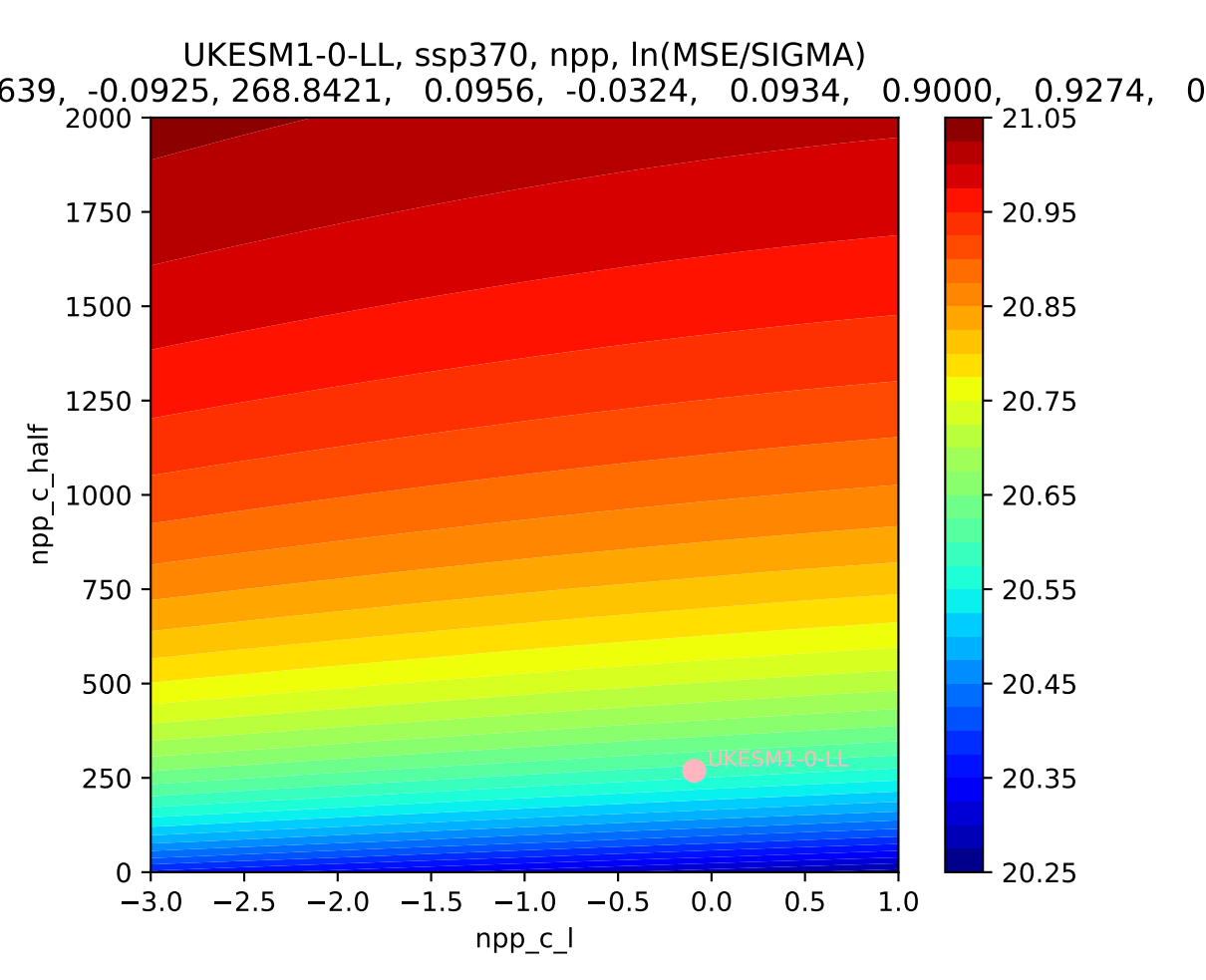

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
ΔT

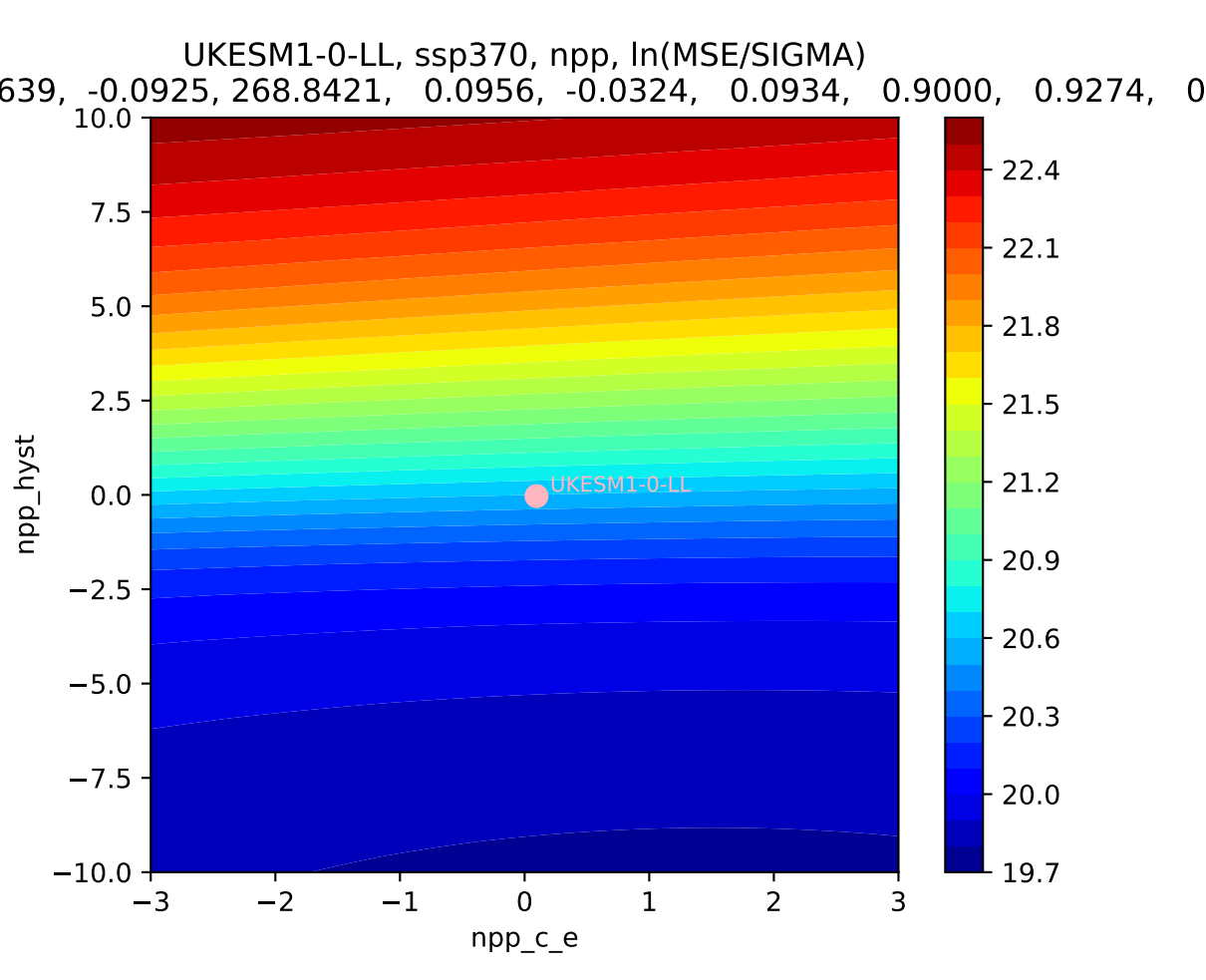

UKESM1-0-LL, ssp370, npp
npp, ESM - FIT
ESM-Fit
ΔT

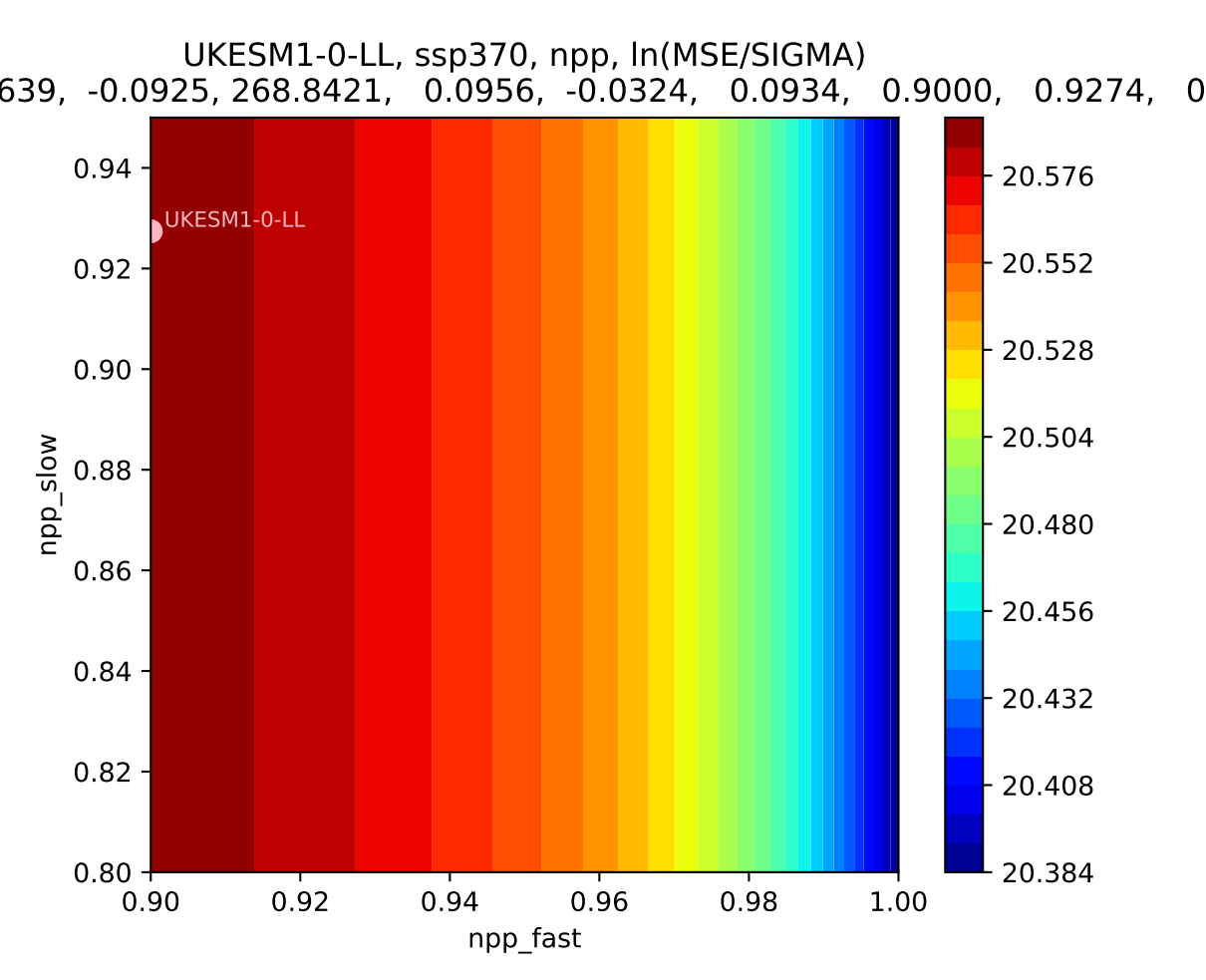

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
c_atm

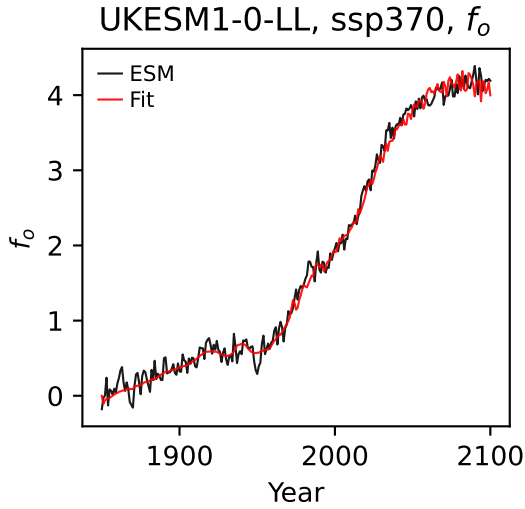

UKESM1-0-LL, ssp370, npp
npp, ESM - FIT
ESM-Fit
c_atm

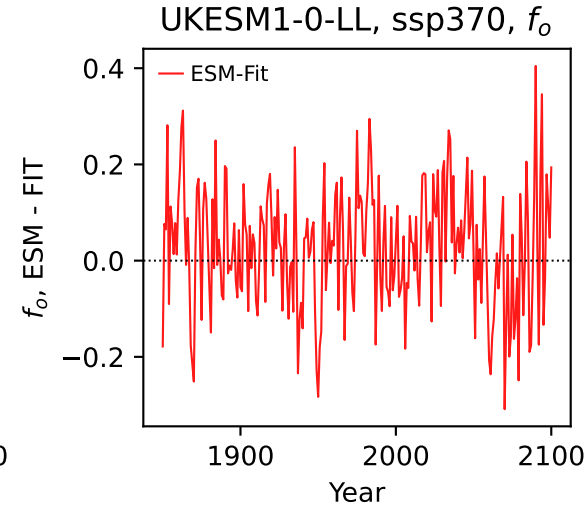

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
639, -0.0925, 268.8421, 0.0956, -0.0324, 0.0934, 0.9000, 0.9274, 0
UKESM1-0-LL
npp_t_e
npp_t_l
4
3
2
1
0
−1
−2
−3
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
22.7
22.3
21.9
21.5
21.1
20.7
20.3
19.9
19.5

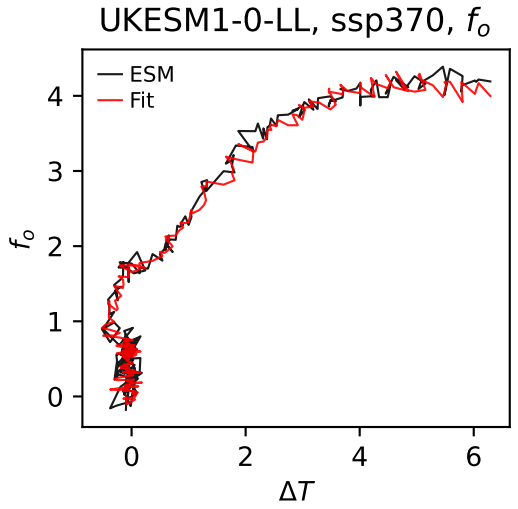

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
639, -0.0925, 268.8421, 0.0956, -0.0324, 0.0934, 0.9000, 0.9274, 0
2000
1750
1500
1250
1000
750
500
250
0
npp_c_half
−3.0
−2.5
−2.0
−1.5
−1.0
−0.5
0.0
0.5
1.0
npp_c_l
UKESM1-0-LL
21.05
20.95
20.85
20.75
20.65
20.55
20.45
20.35
20.25

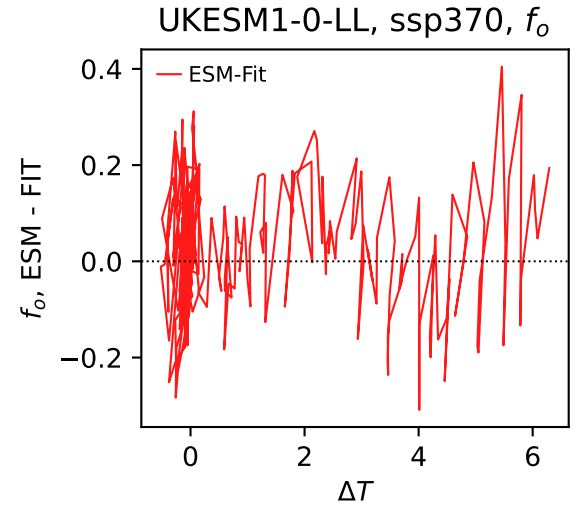

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
639, -0.0925, 268.8421, 0.0956, -0.0324, 0.0934, 0.9000, 0.9274, 0
UKESM1-0-LL
npp_hyst
npp_c_e
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
−3
−2
−1
0
1
2
3
22.4
22.1
21.8
21.5
21.2
20.9
20.6
20.3
20.0
19.7

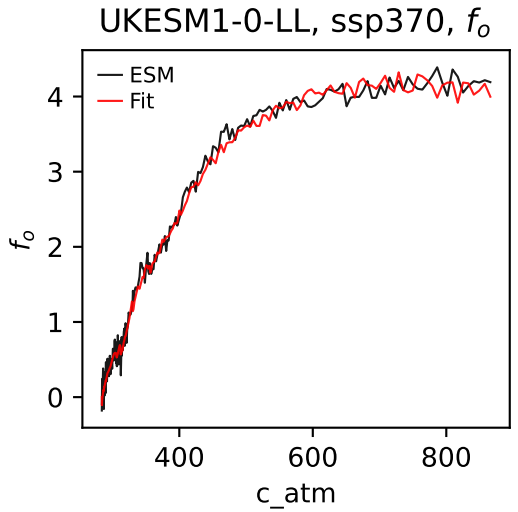

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
639, -0.0925, 268.8421, 0.0956, -0.0324, 0.0934, 0.9000, 0.9274, 0
UKESM1-0-LL
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
npp_slow
0.90
0.92
0.94
0.96
0.98
1.00
npp_fast
20.576
20.552
20.528
20.504
20.480
20.456
20.432
20.408
20.384

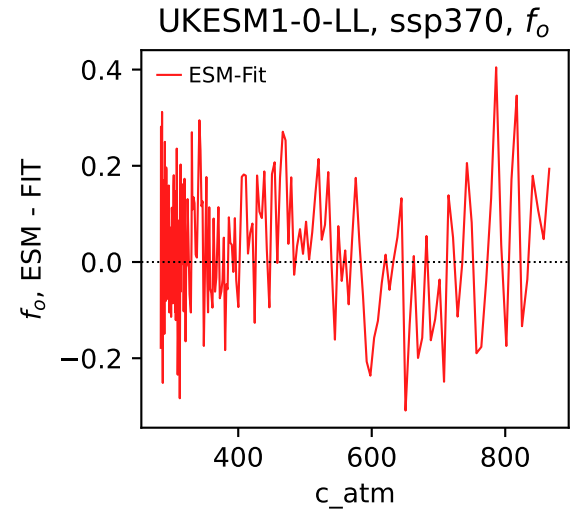

UKESM1-0-LL, ssp370, f_o
ESM
Fit
f_o
Year

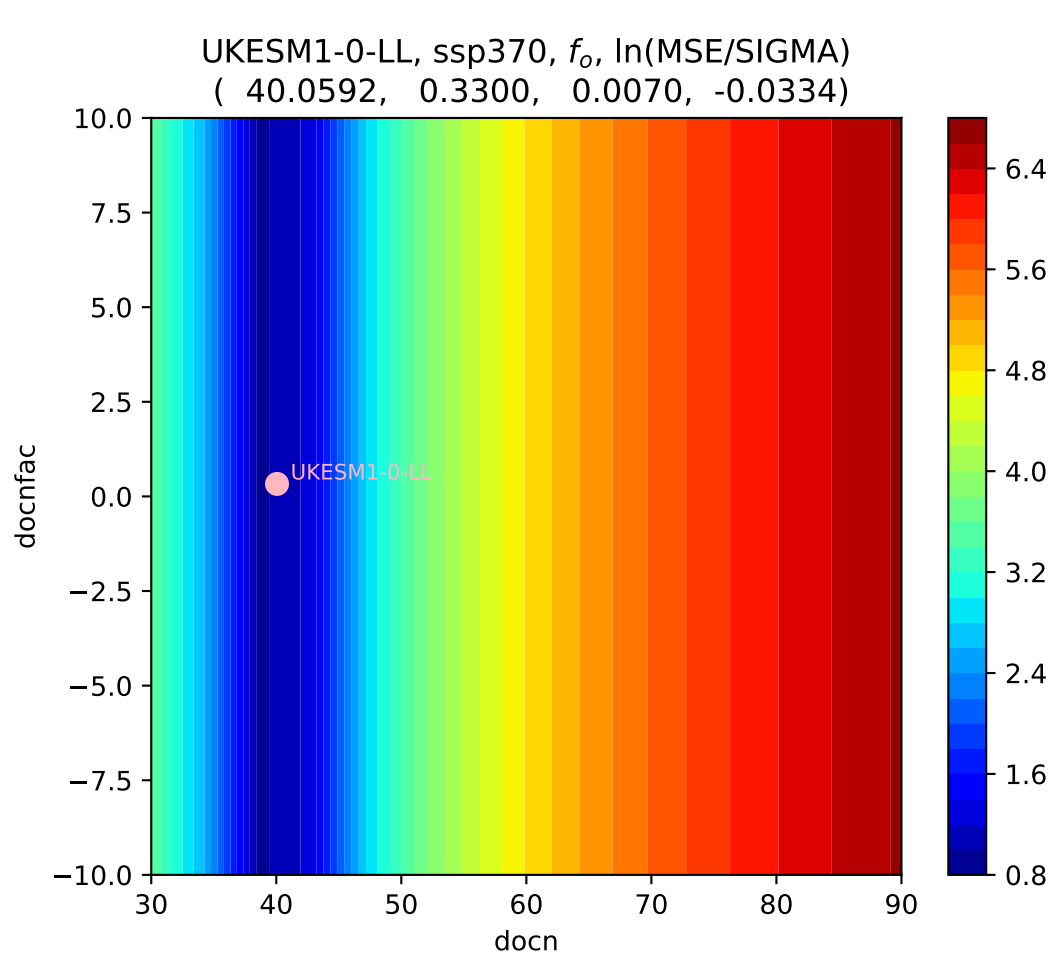

UKESM1-0-LL, ssp370, f_o
ESM-Fit
f_o, ESM - FIT
Year

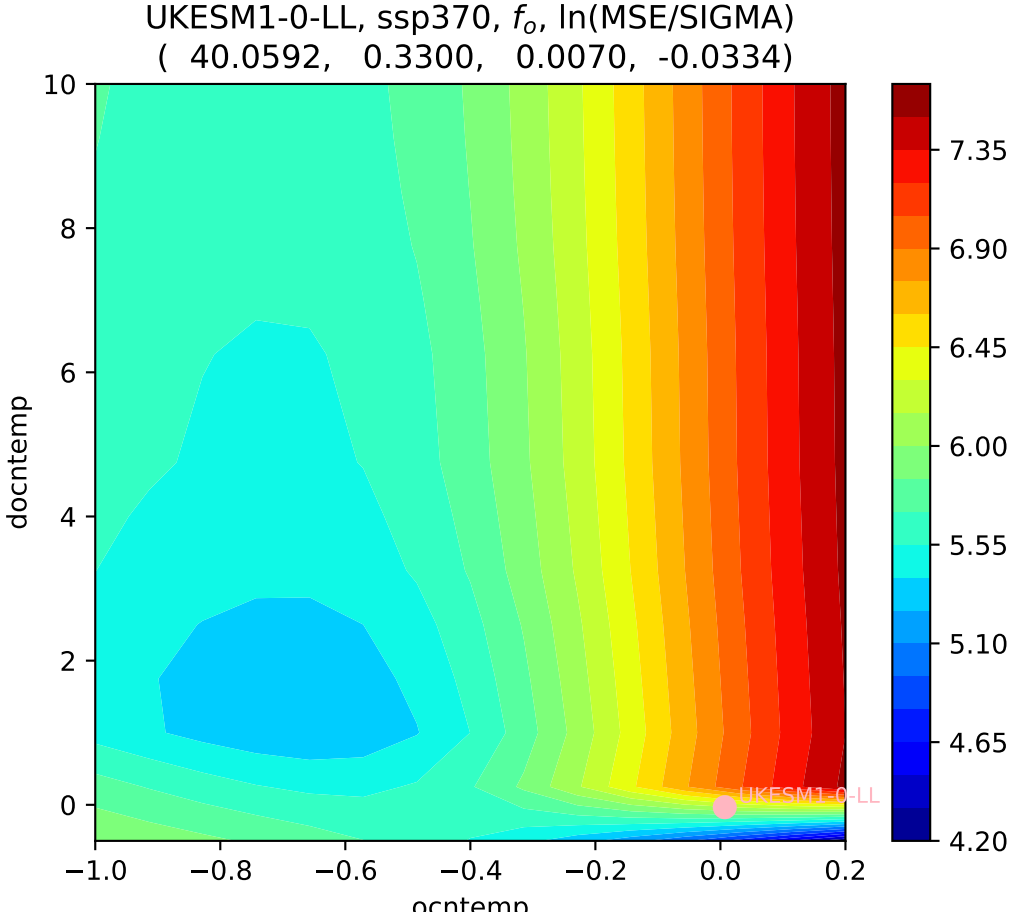

UKESM1-0-LL, ssp370, f_o
ESM
Fit
f_o
ΔT


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