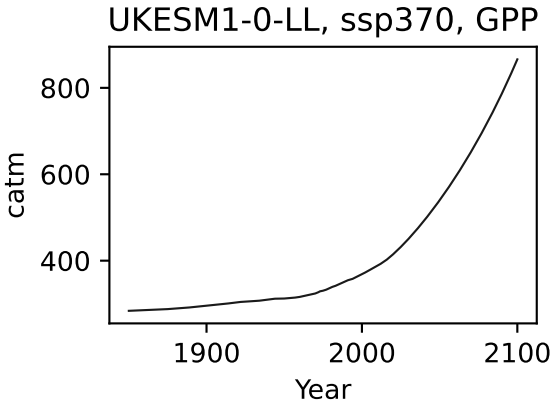
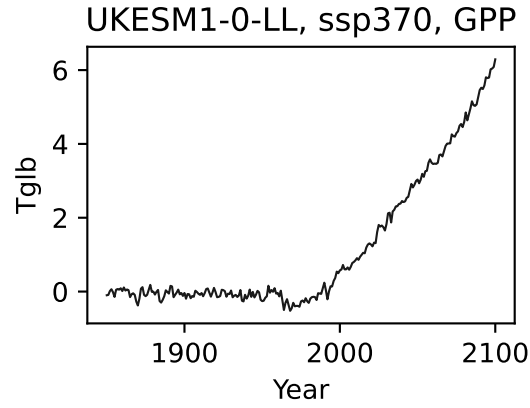
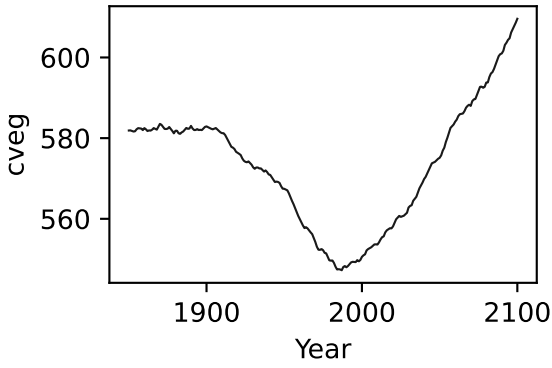
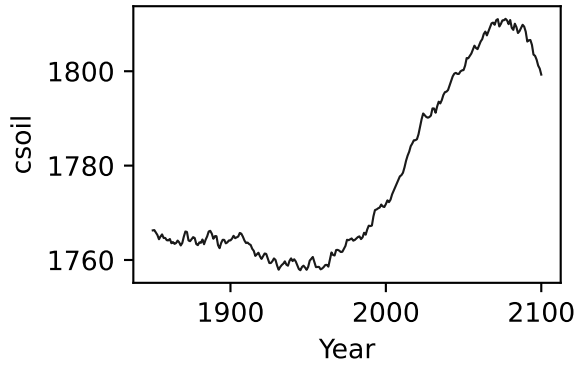
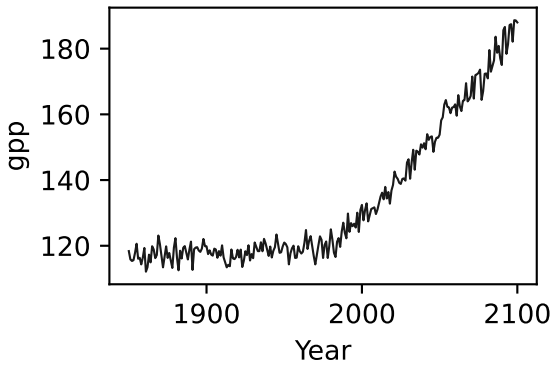
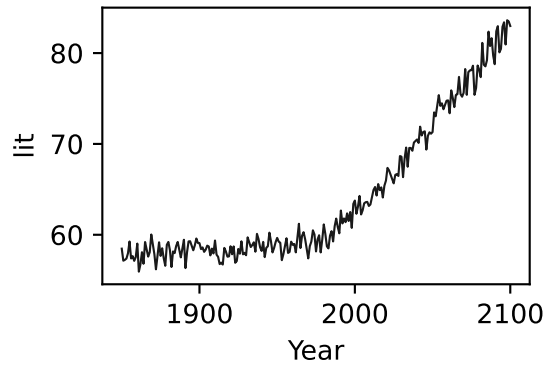

UKESM1-0-LL, ssp370, GPP
catm
800
600
400
1900
2000
2100
Year

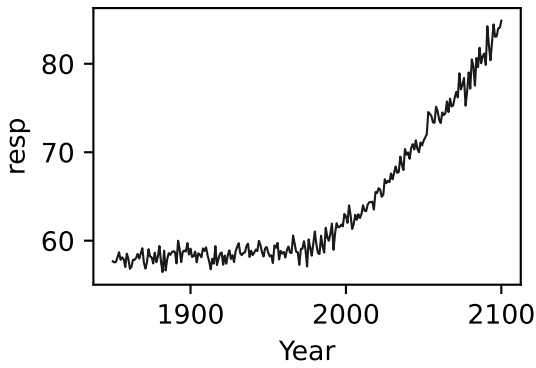

UKESM1-0-LL, ssp370, GPP
Tglb
6
4
2
0
1900
2000
2100
Year

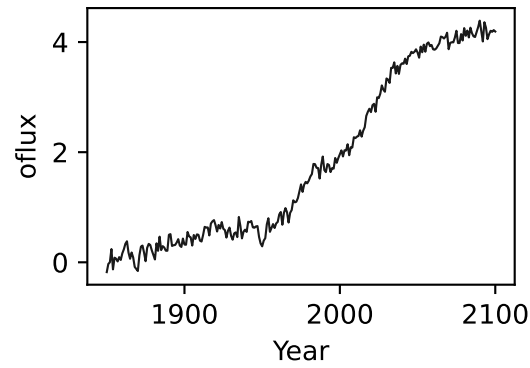

cveg
600
580
560
1900
2000
2100
Year

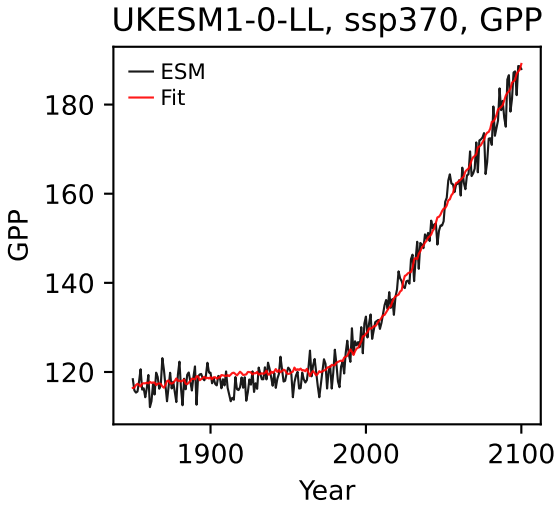

csoil
1800
1780
1760
1900
2000
2100
Year

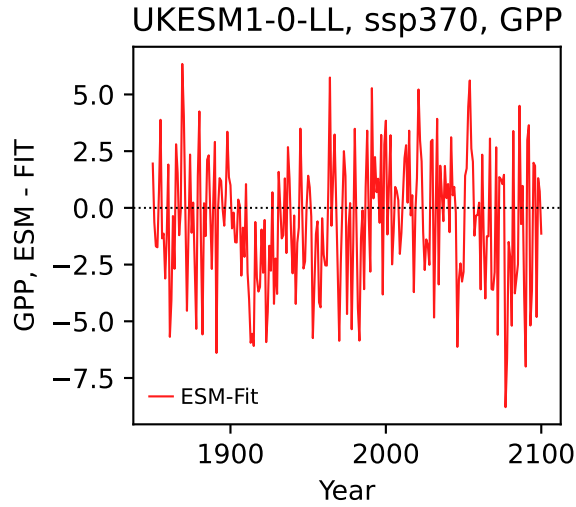

gpp
180
160
140
120
1900
2000
2100
Year

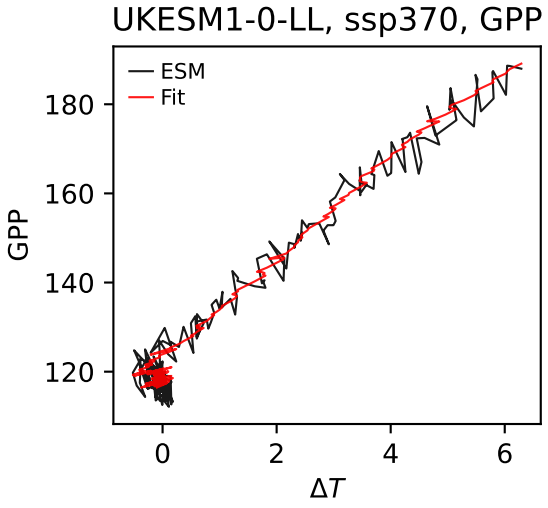

lit
80
70
60
1900
2000
2100
Year

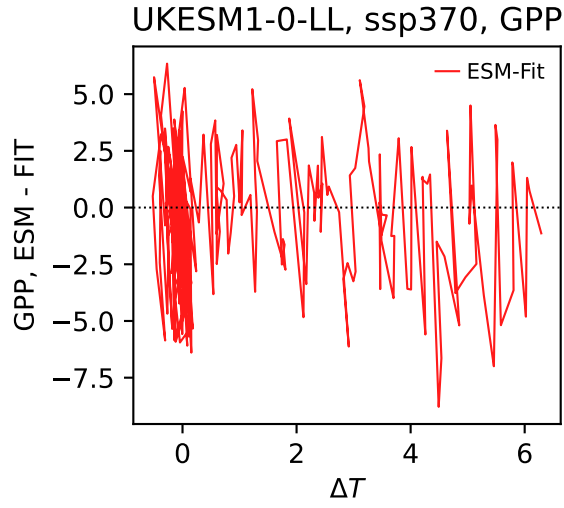

resp
80
70
60
1900
2000
2100
Year

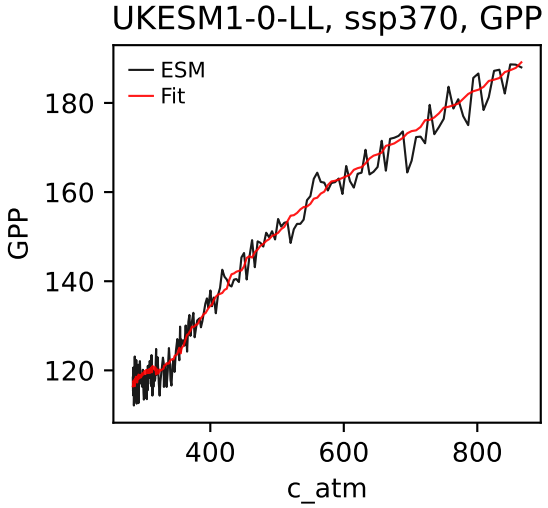

oflux
4
2
0
1900
2000
2100
Year

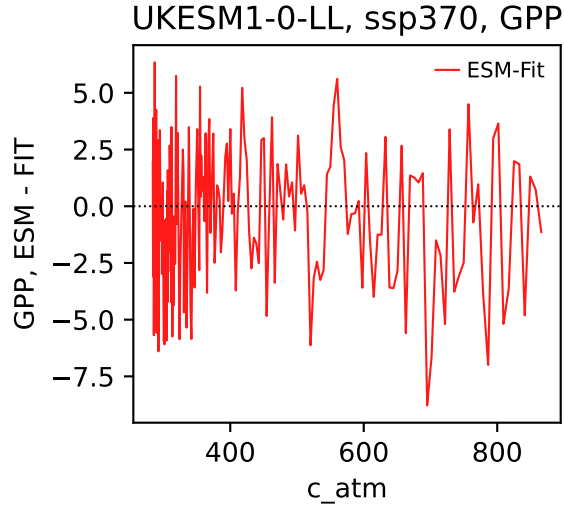

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
Year

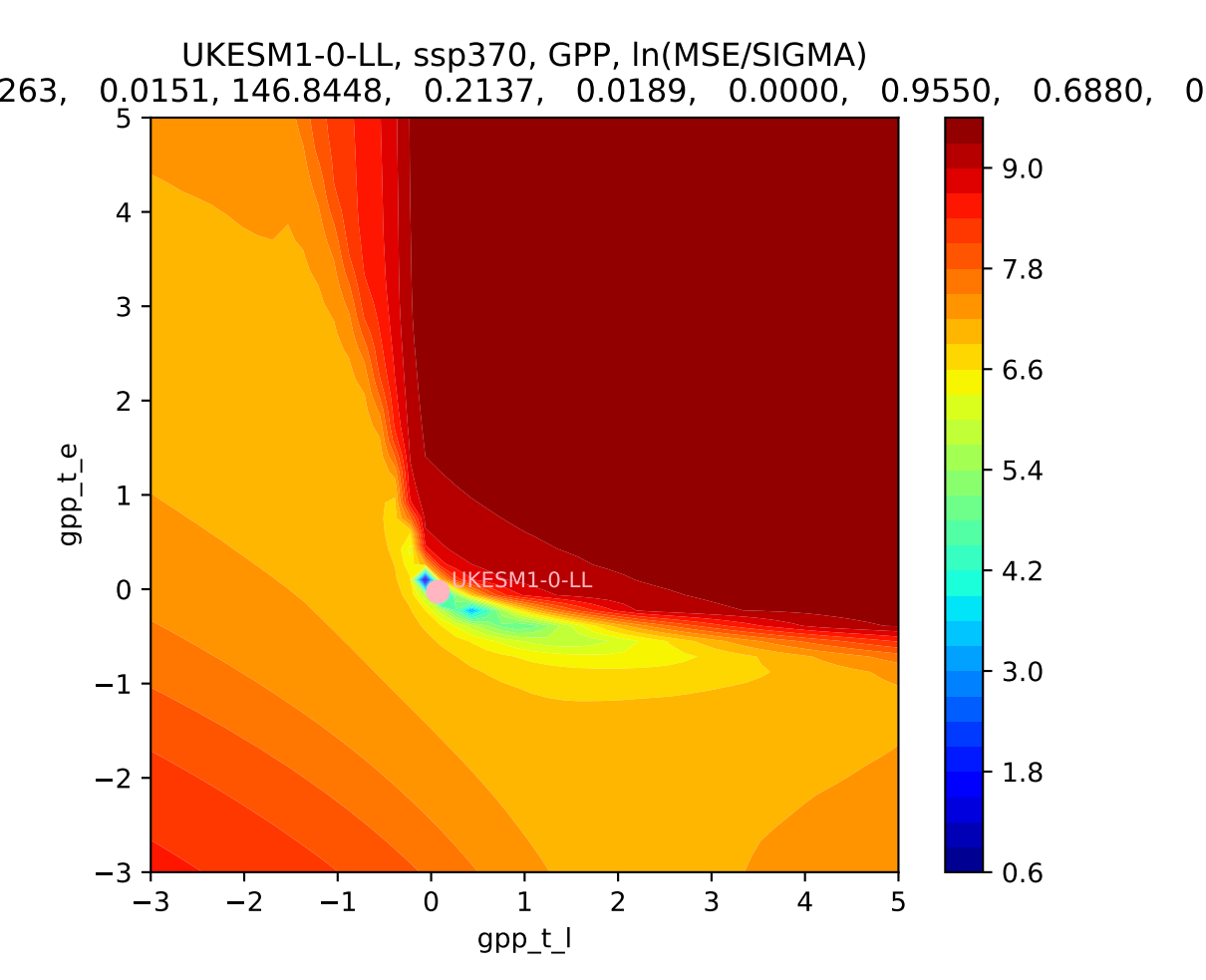

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
Year

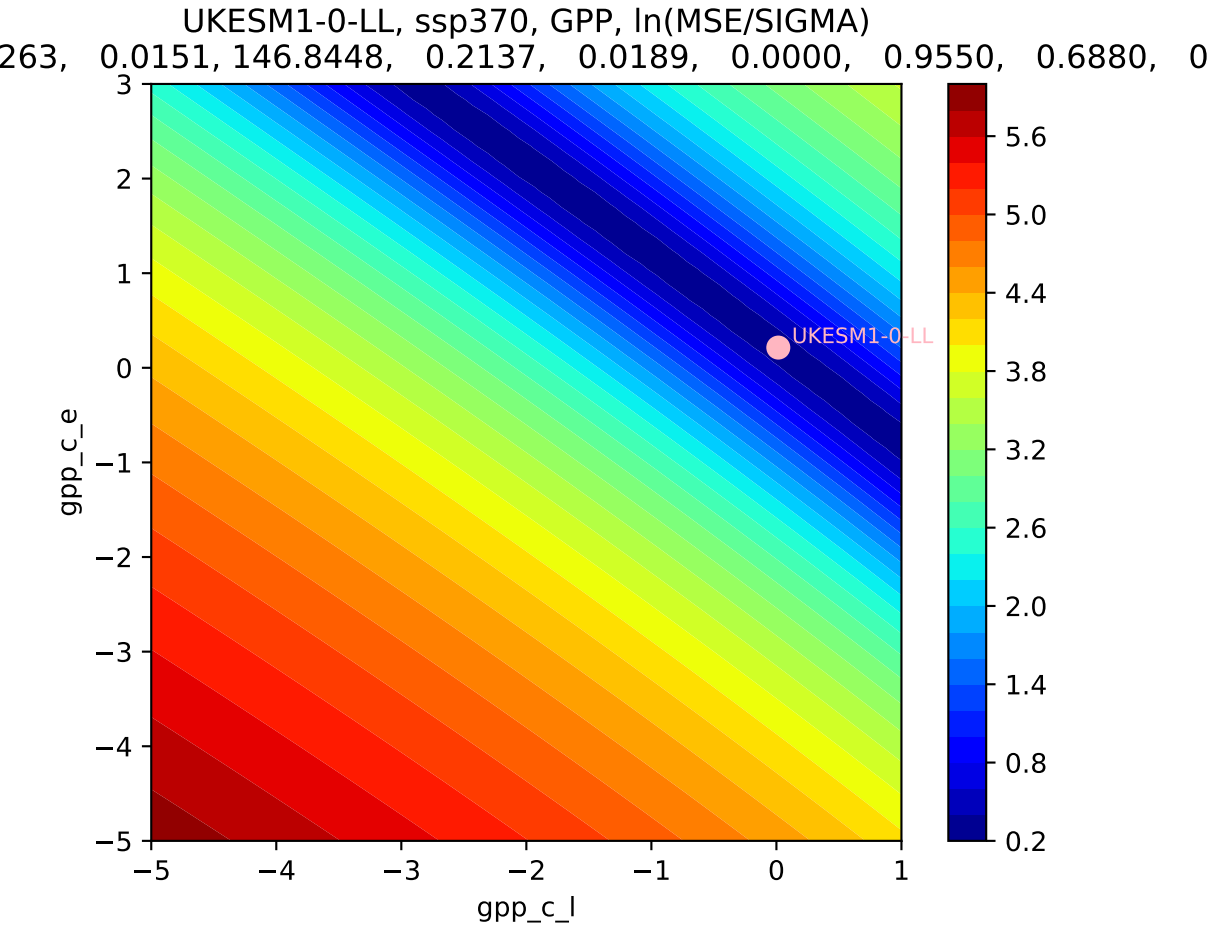

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
ΔT

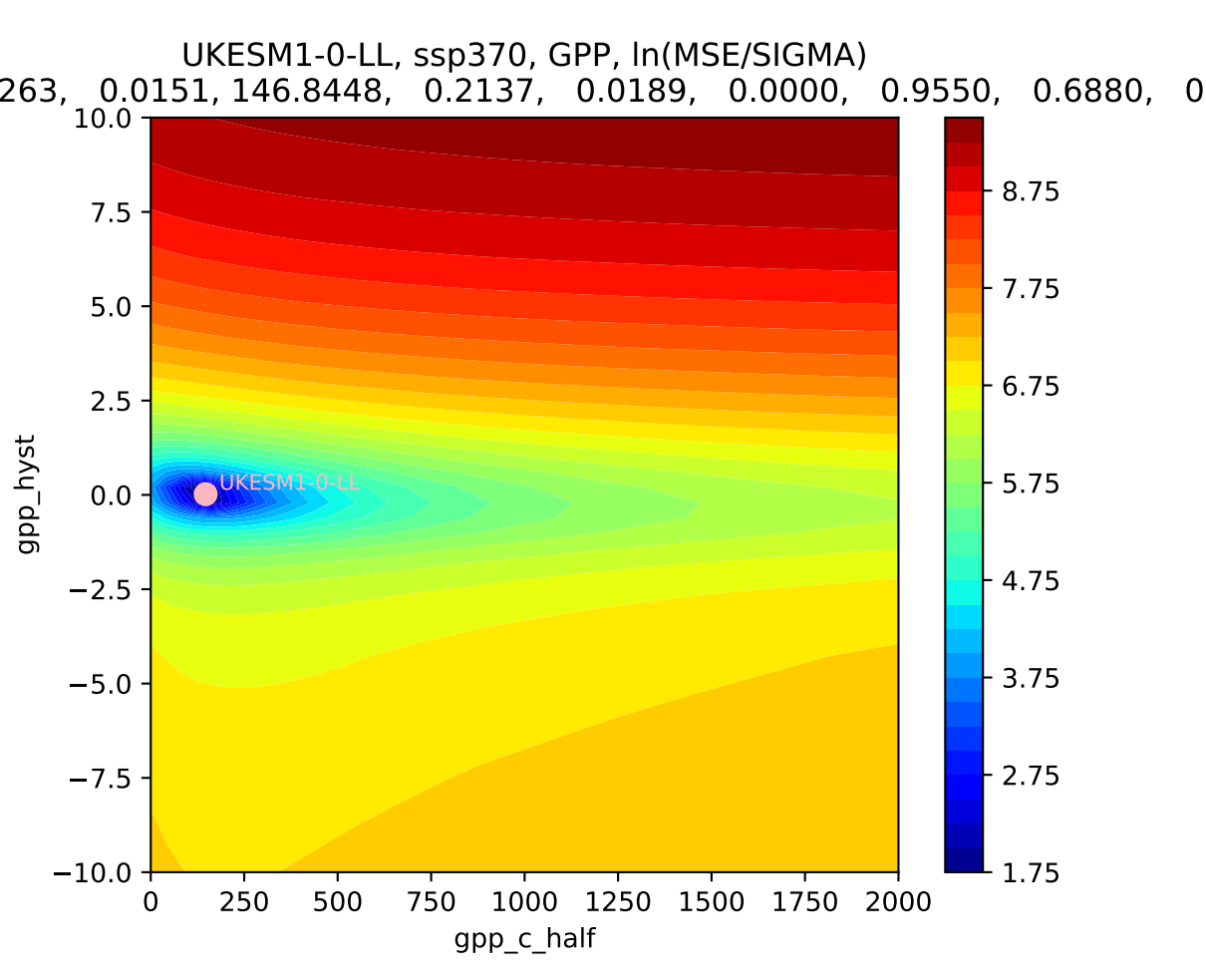

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
ΔT

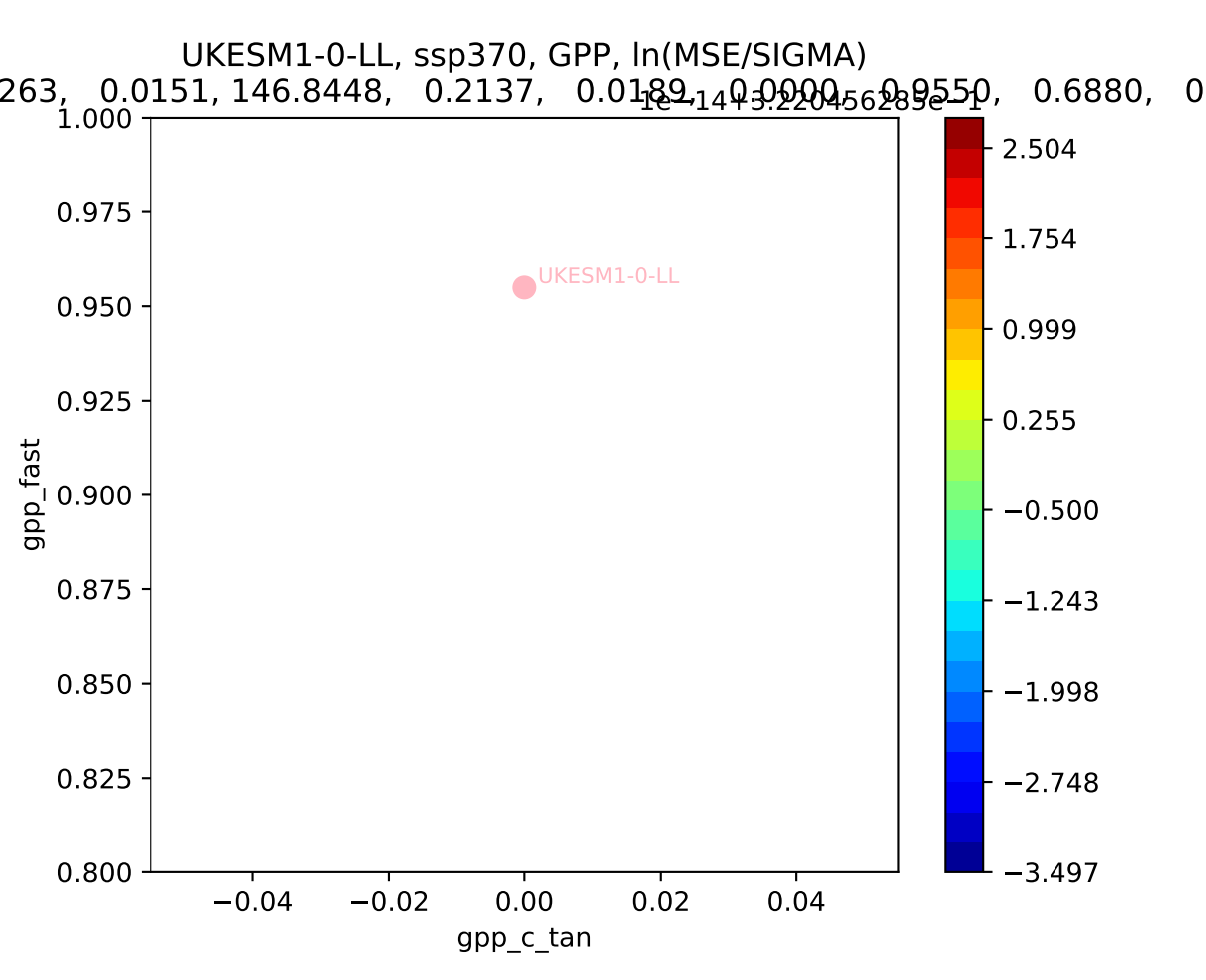

UKESM1-0-LL, ssp370, GPP
ESM
Fit
GPP
c_atm

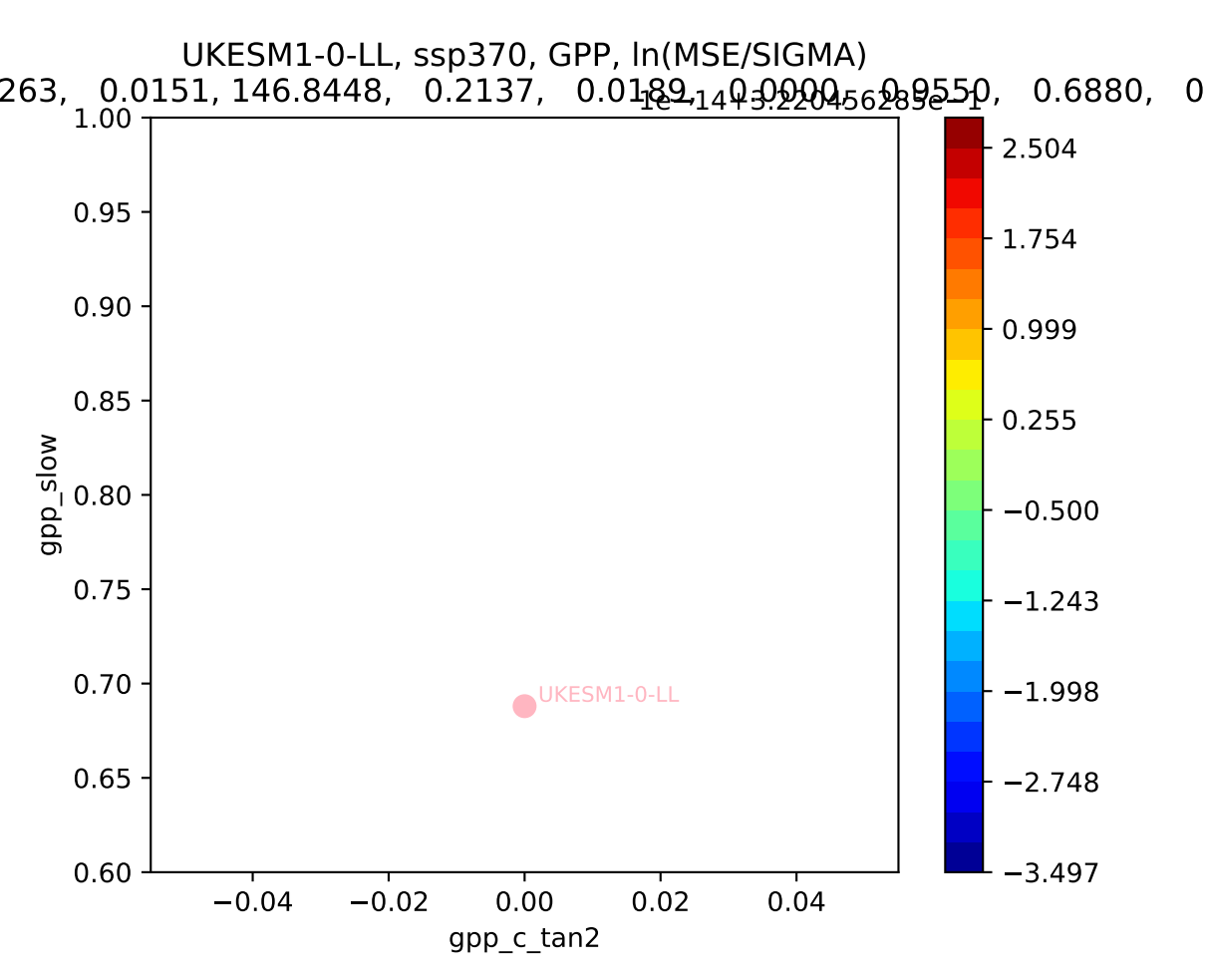

UKESM1-0-LL, ssp370, GPP
GPP, ESM - FIT
ESM-Fit
c_atm

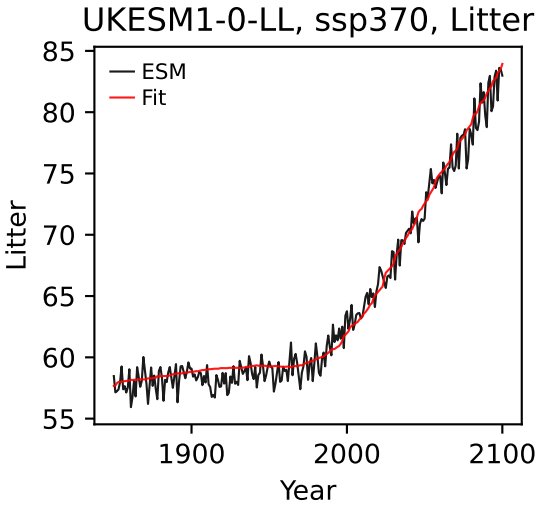

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8448, 0.2137, 0.0189, 0.0000, 0.9550, 0.6880, 0
gpp_t_e
gpp_t_l
UKESM1-0-LL
9.0
7.8
6.6
5.4
4.2
3.0
1.8
0.6

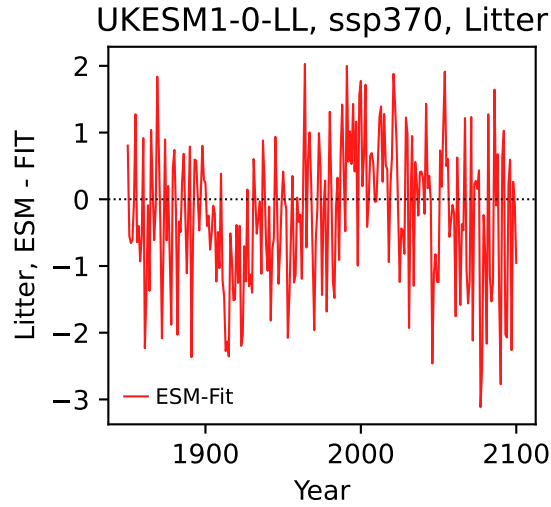

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8448, 0.2137, 0.0189, 0.0000, 0.9550, 0.6880, 0
UKESM1-0-LL
gpp_c_e
gpp_c_l
3
2
1
0
−1
−2
−3
−4
−5
−5
−4
−3
−2
−1
0
1
5.6
5.0
4.4
3.8
3.2
2.6
2.0
1.4
0.8
0.2

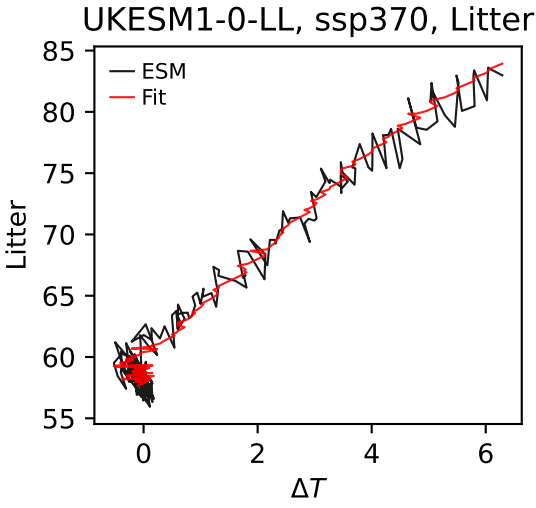

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8448, 0.2137, 0.0189, 0.0000, 0.9550, 0.6880, 0
UKESM1-0-LL
gpp_hyst
gpp_c_half
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
0
250
500
750
1000
1250
1500
1750
2000
8.75
7.75
6.75
5.75
4.75
3.75
2.75
1.75

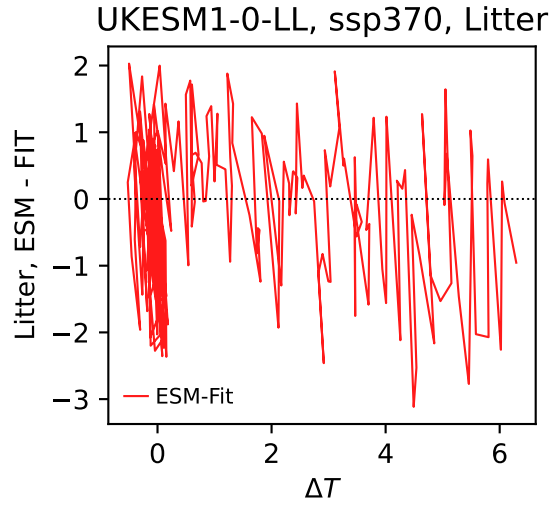

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8448, 0.2137, 0.0189, 0.0000, 0.9550, 0.6880, 0
1e−14+3.220456285e−1
UKESM1-0-LL
gpp_fast
gpp_c_tan
1.000
0.975
0.950
0.925
0.900
0.875
0.850
0.825
0.800
−0.04
−0.02
0.00
0.02
0.04
2.504
1.754
0.999
0.255
−0.500
−1.243
−1.998
−2.748
−3.497

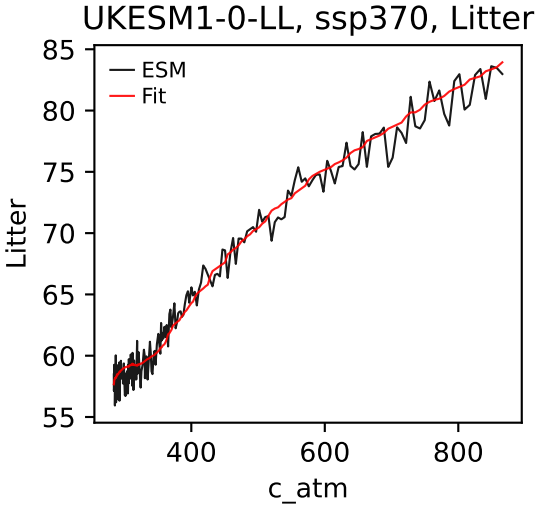

UKESM1-0-LL, ssp370, GPP, ln(MSE/SIGMA)
263, 0.0151, 146.8448, 0.2137, 0.0189, 0.0000, 0.9550, 0.6880, 0
1e−14+3.220456285e−1
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
gpp_slow
UKESM1-0-LL
−0.04
−0.02
0.00
0.02
0.04
gpp_c_tan2
2.504
1.754
0.999
0.255
−0.500
−1.243
−1.998
−2.748
−3.497

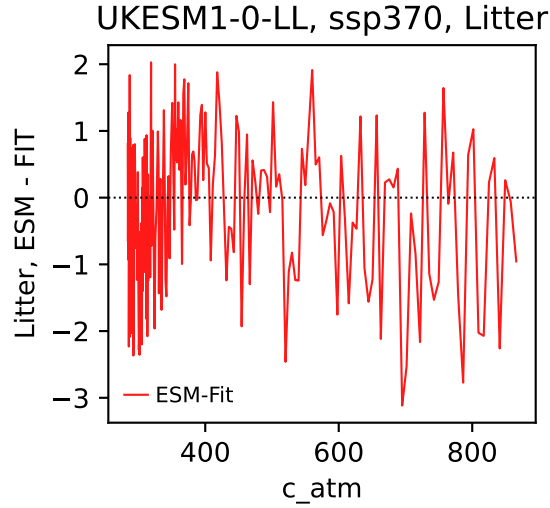

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
Year

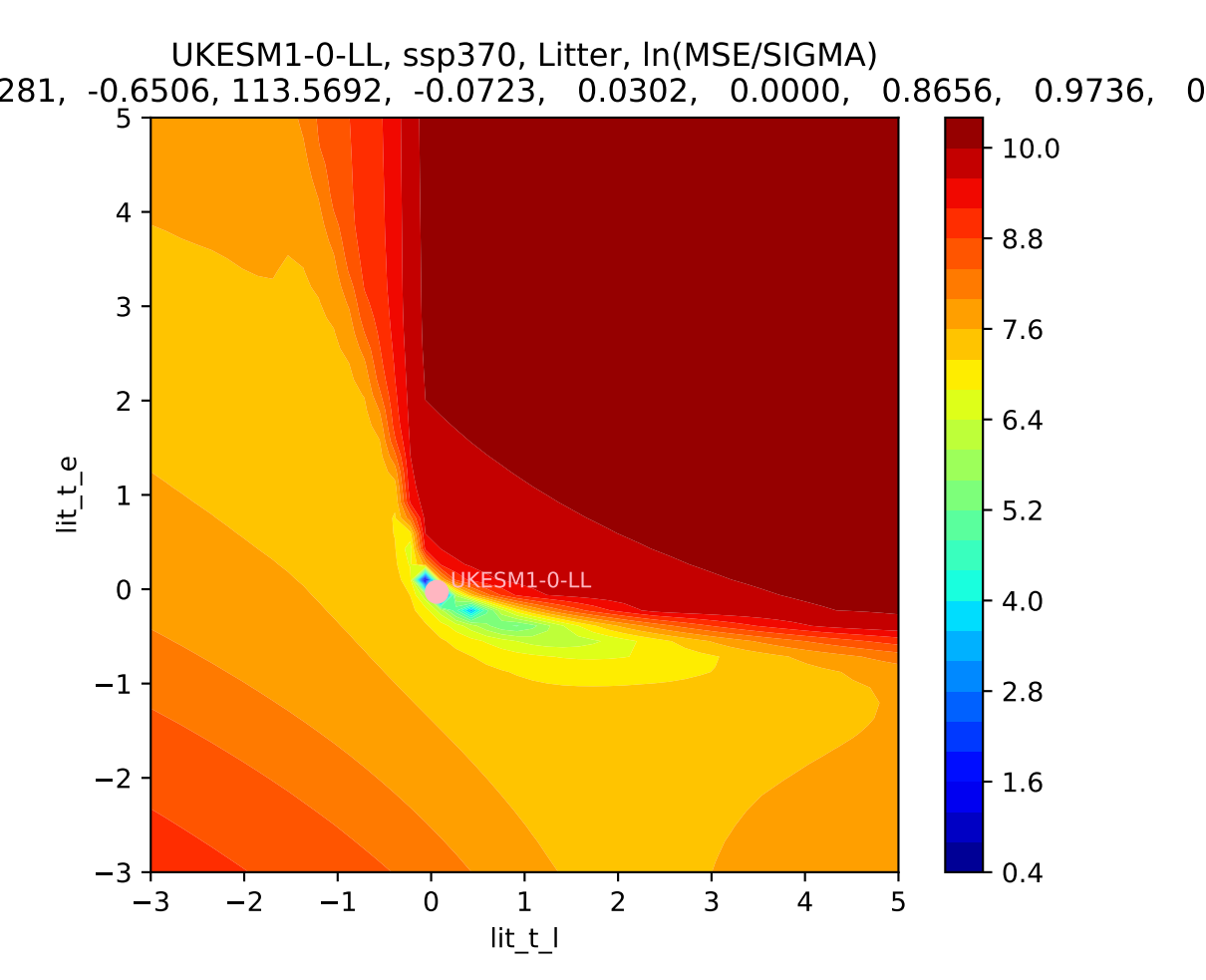

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
Year

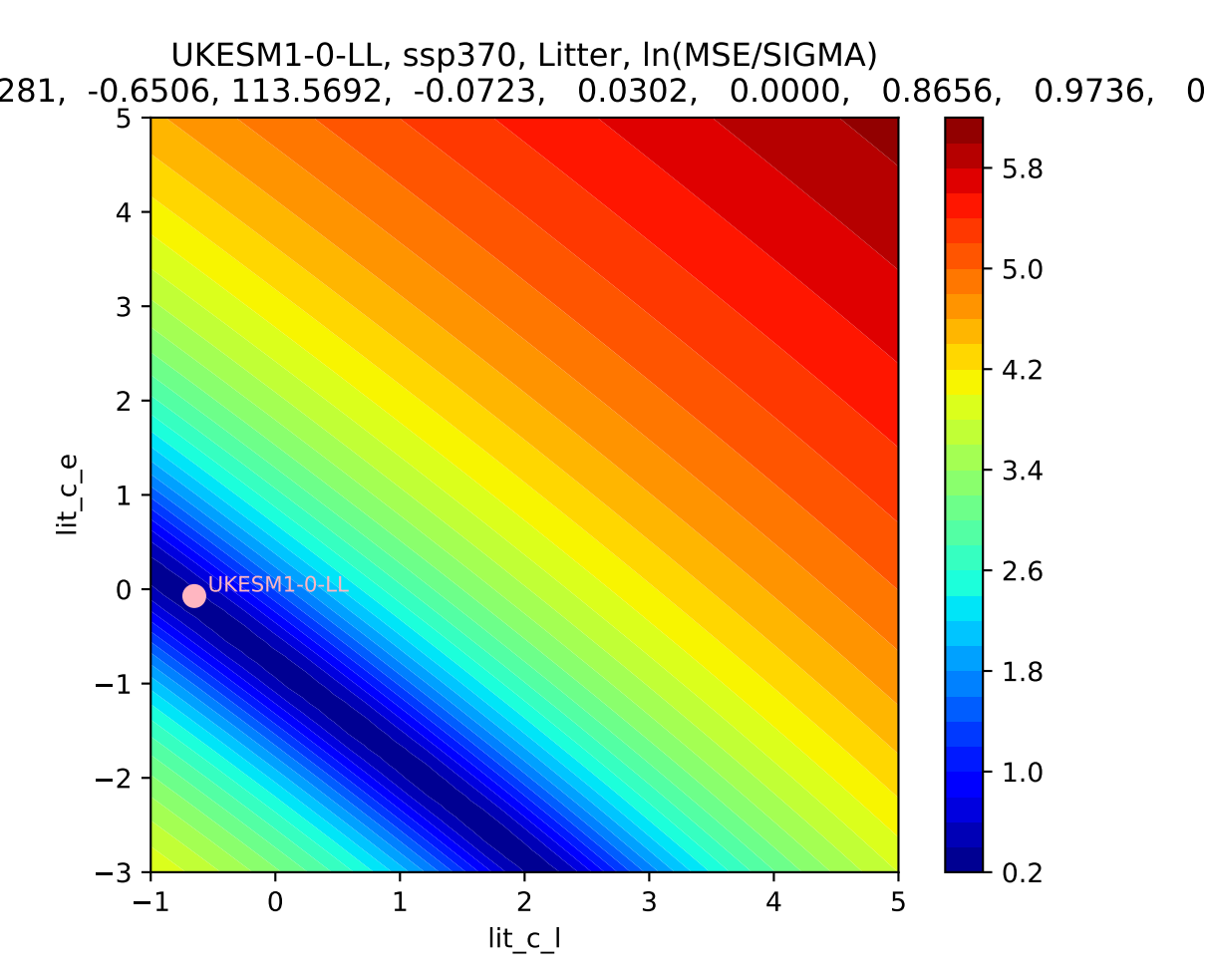

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
ΔT

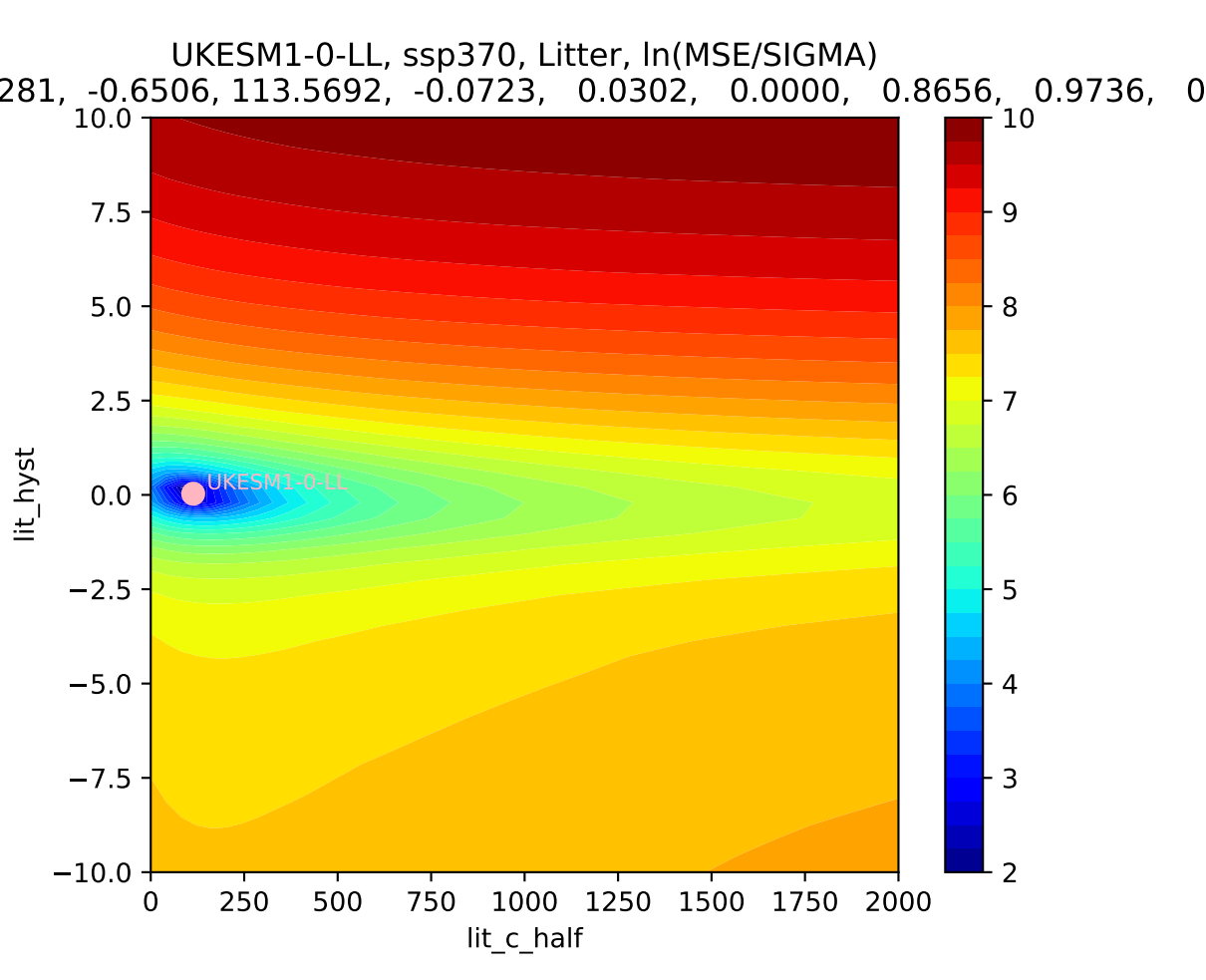

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
ΔT

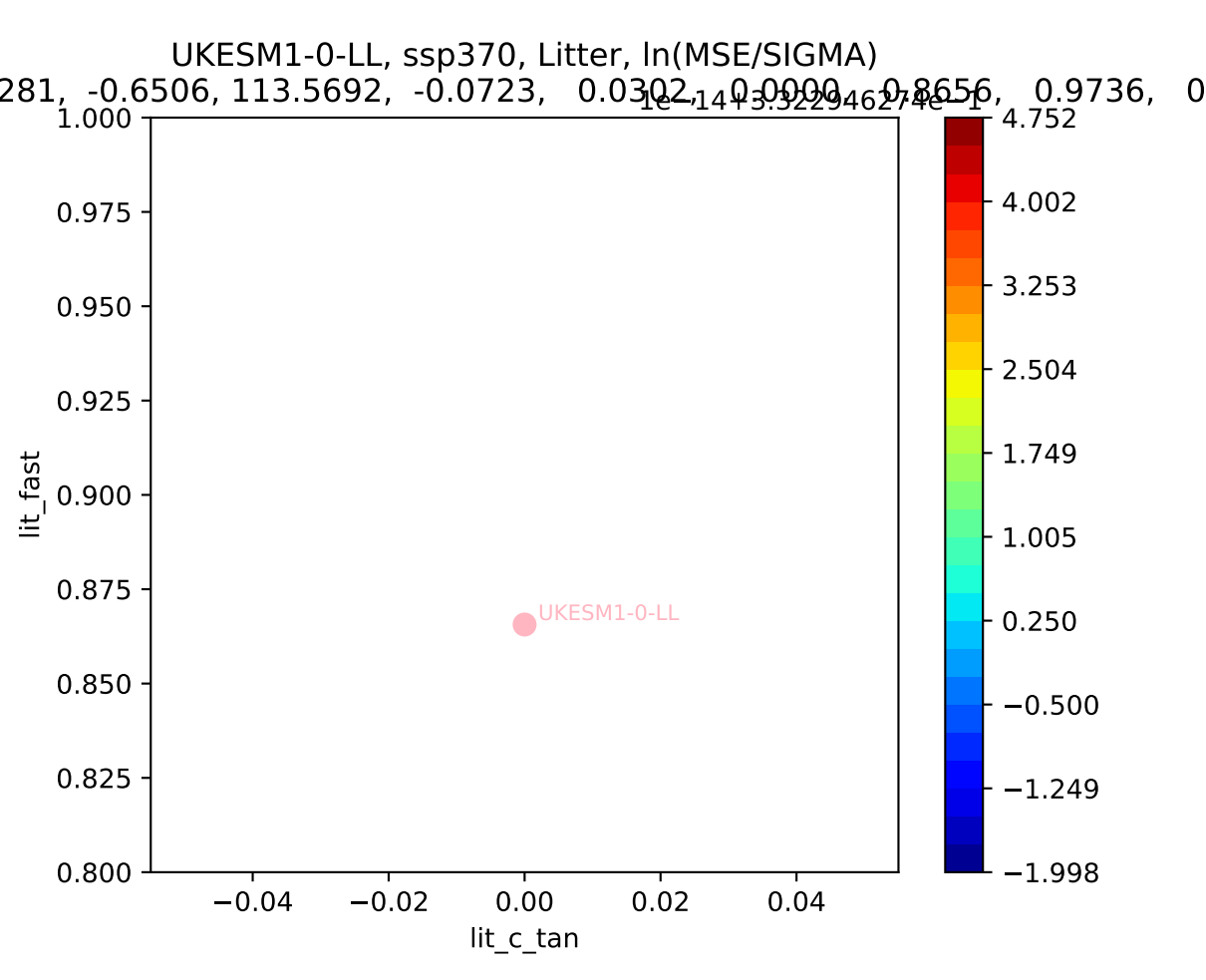

UKESM1-0-LL, ssp370, Litter
ESM
Fit
Litter
c_atm

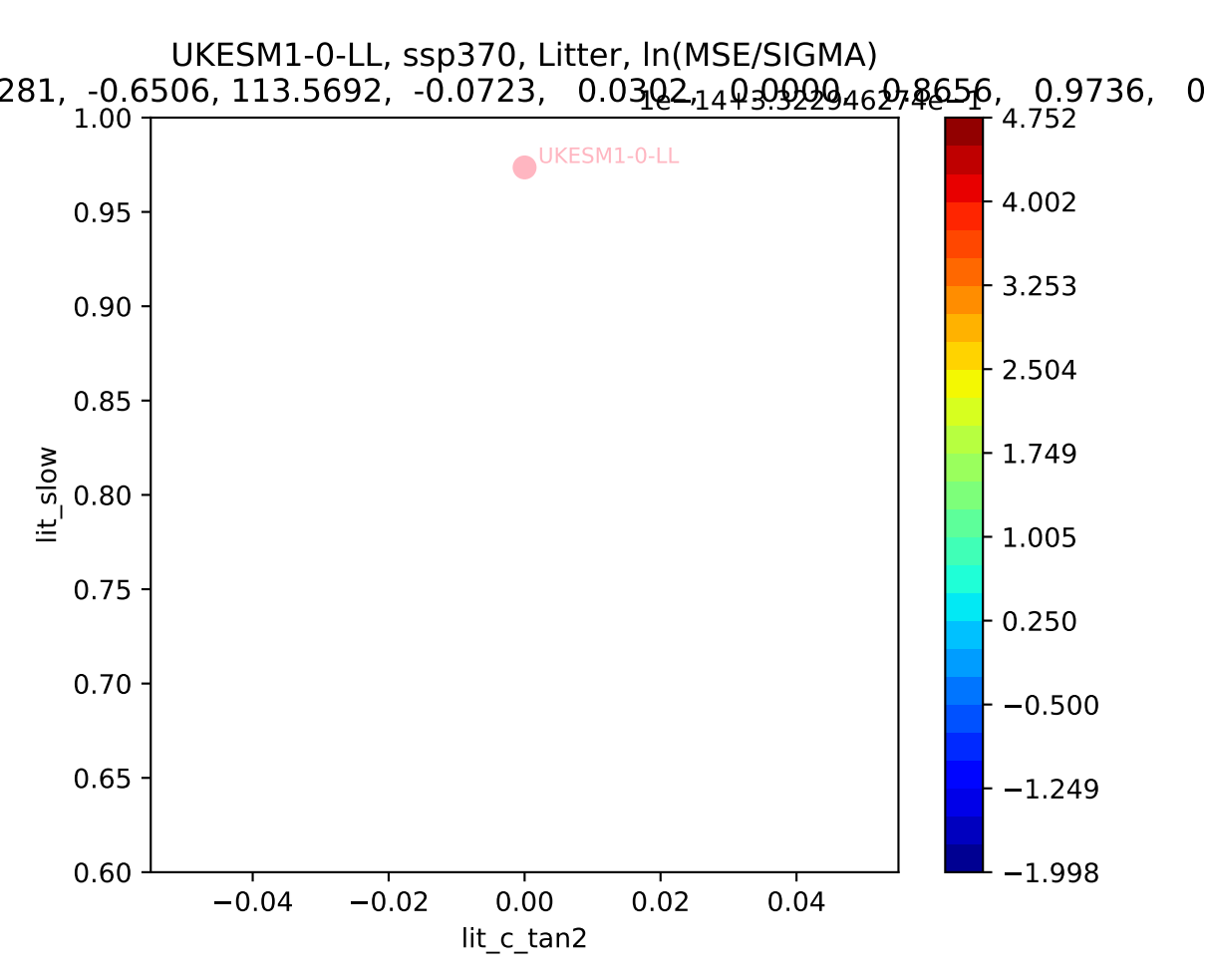

UKESM1-0-LL, ssp370, Litter
Litter, ESM - FIT
ESM-Fit
c_atm

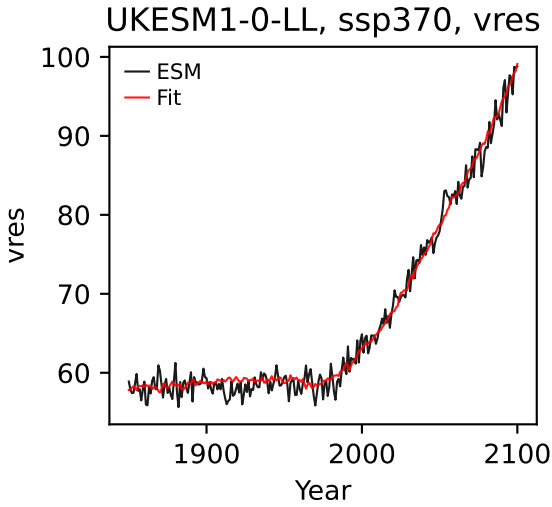

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5692, -0.0723, 0.0302, 0.0000, 0.8656, 0.9736, 0
UKESM1-0-LL
lit_t_e
lit_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
10.0
8.8
7.6
6.4
5.2
4.0
2.8
1.6
0.4

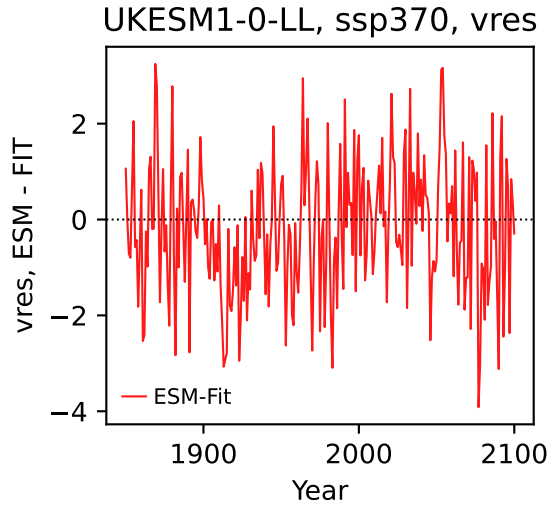

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5692, -0.0723, 0.0302, 0.0000, 0.8656, 0.9736, 0
UKESM1-0-LL
lit_c_e
lit_c_l
5
4
3
2
1
0
−1
−2
−3
−1
0
1
2
3
4
5
5.8
5.0
4.2
3.4
2.6
1.8
1.0
0.2

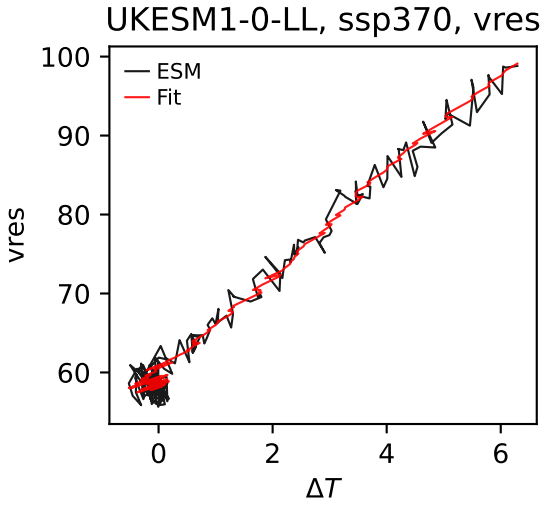

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5692, -0.0723, 0.0302, 0.0000, 0.8656, 0.9736, 0
UKESM1-0-LL
lit_hyst
lit_c_half
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
0
250
500
750
1000
1250
1500
1750
2000
10
9
8
7
6
5
4
3
2

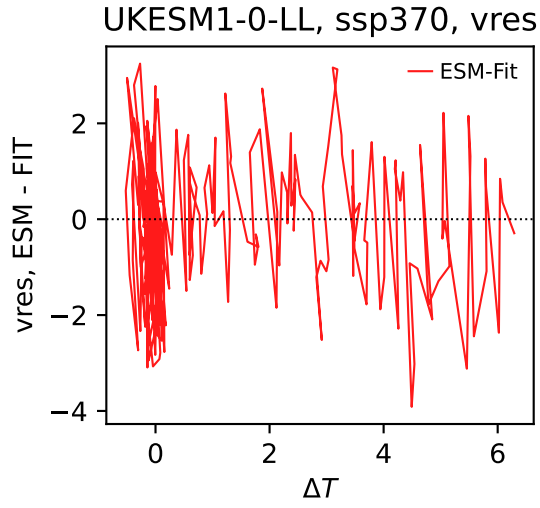

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5692, -0.0723, 0.0302, 0.0000, 0.8656, 0.9736, 0
1e−14+3.3229462274e−1
1.000
0.975
0.950
0.925
0.900
0.875
0.850
0.825
0.800
lit_fast
UKESM1-0-LL
−0.04
−0.02
0.00
0.02
0.04
lit_c_tan
4.752
4.002
3.253
2.504
1.749
1.005
0.250
−0.500
−1.249
−1.998

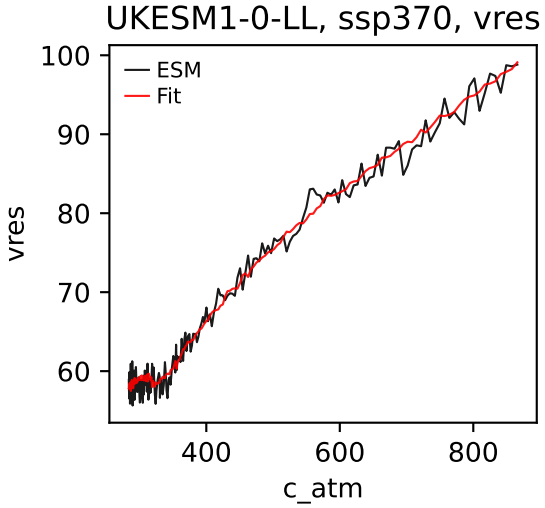

UKESM1-0-LL, ssp370, Litter, ln(MSE/SIGMA)
281, -0.6506, 113.5692, -0.0723, 0.0302, 0.0000, 0.8656, 0.9736, 0
1e−14+3.3229462748e−1
UKESM1-0-LL
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
lit_slow
−0.04
−0.02
0.00
0.02
0.04
lit_c_tan2
4.752
4.002
3.253
2.504
1.749
1.005
0.250
−0.500
−1.249
−1.998

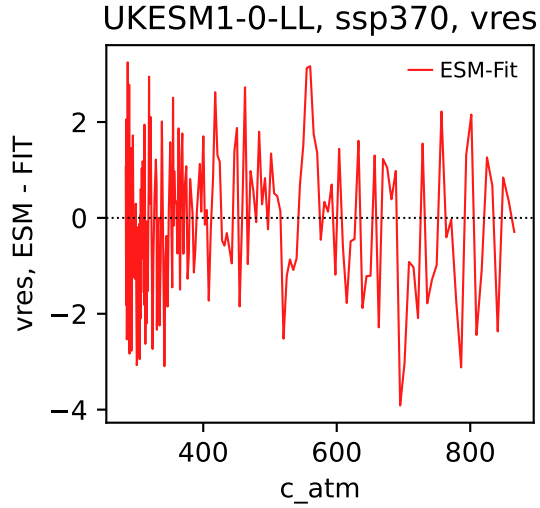

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
Year

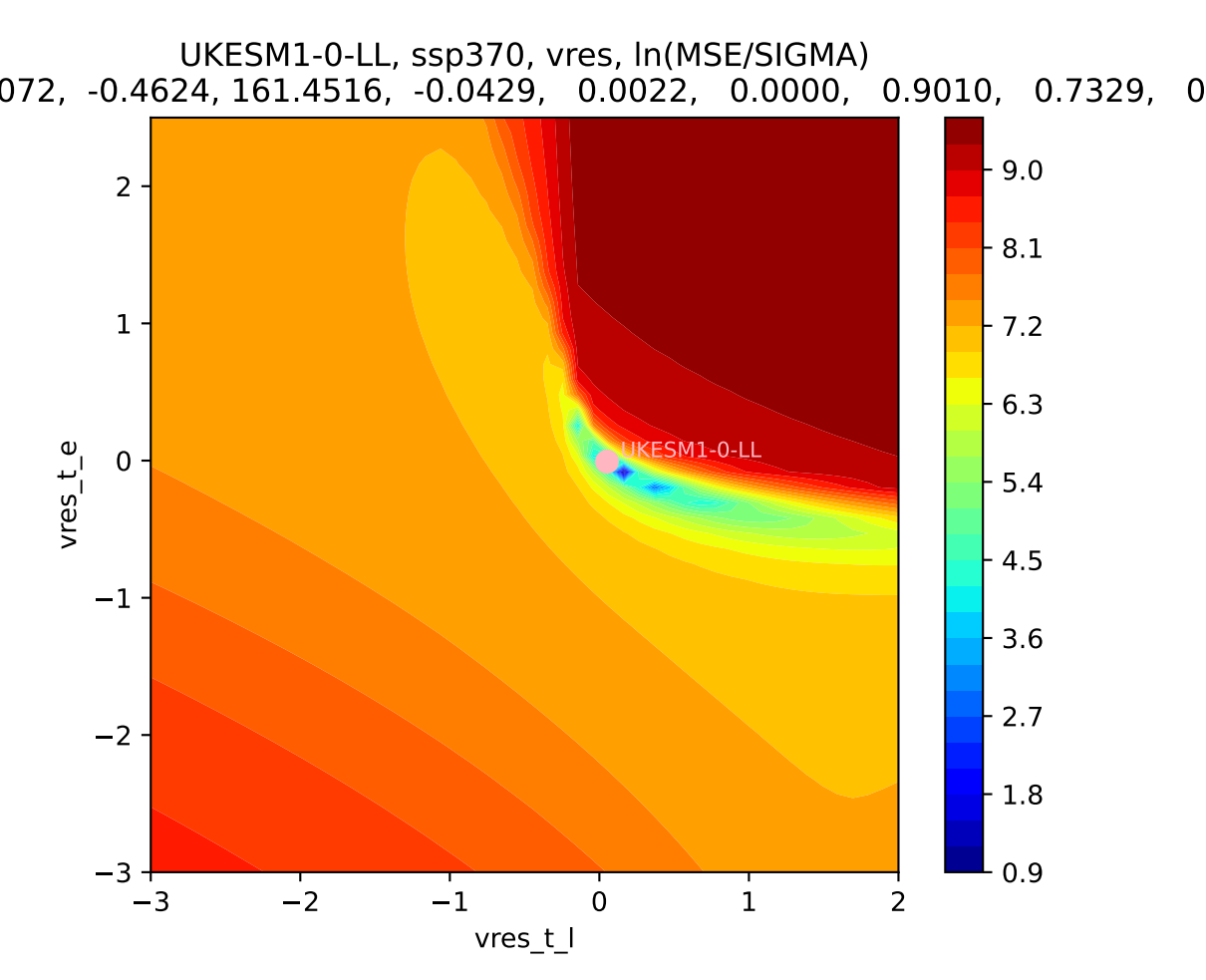

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
Year

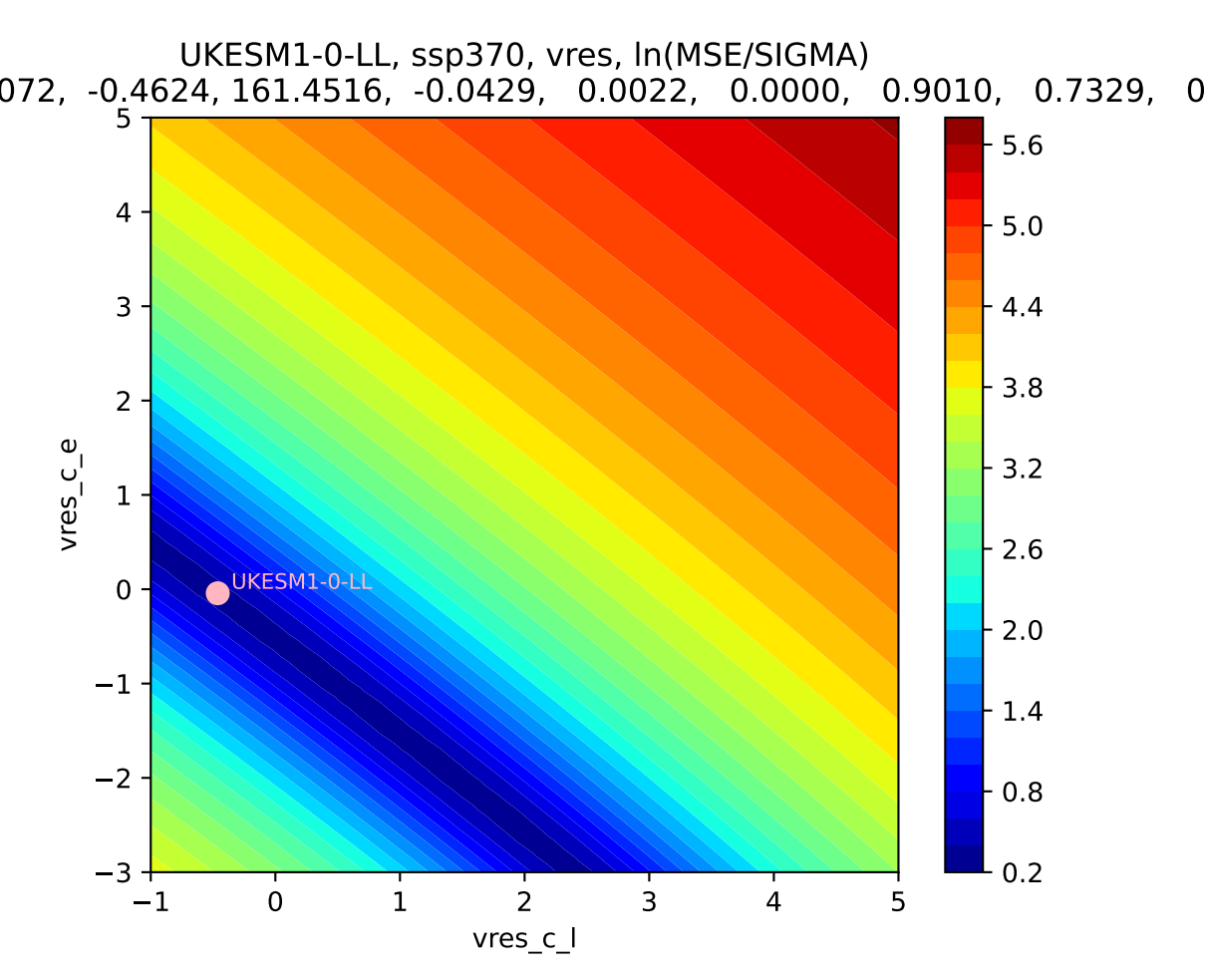

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
ΔT

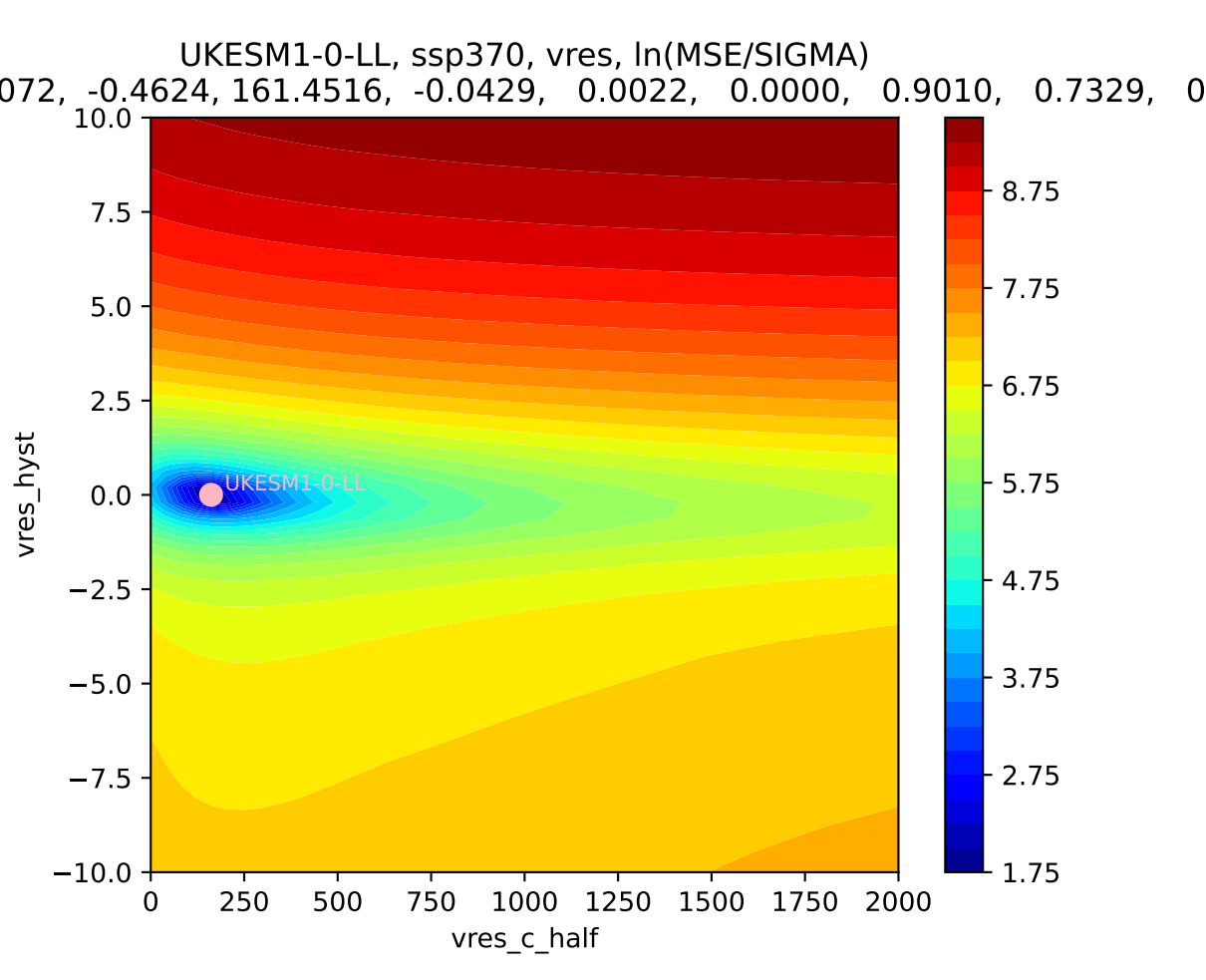

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
ΔT

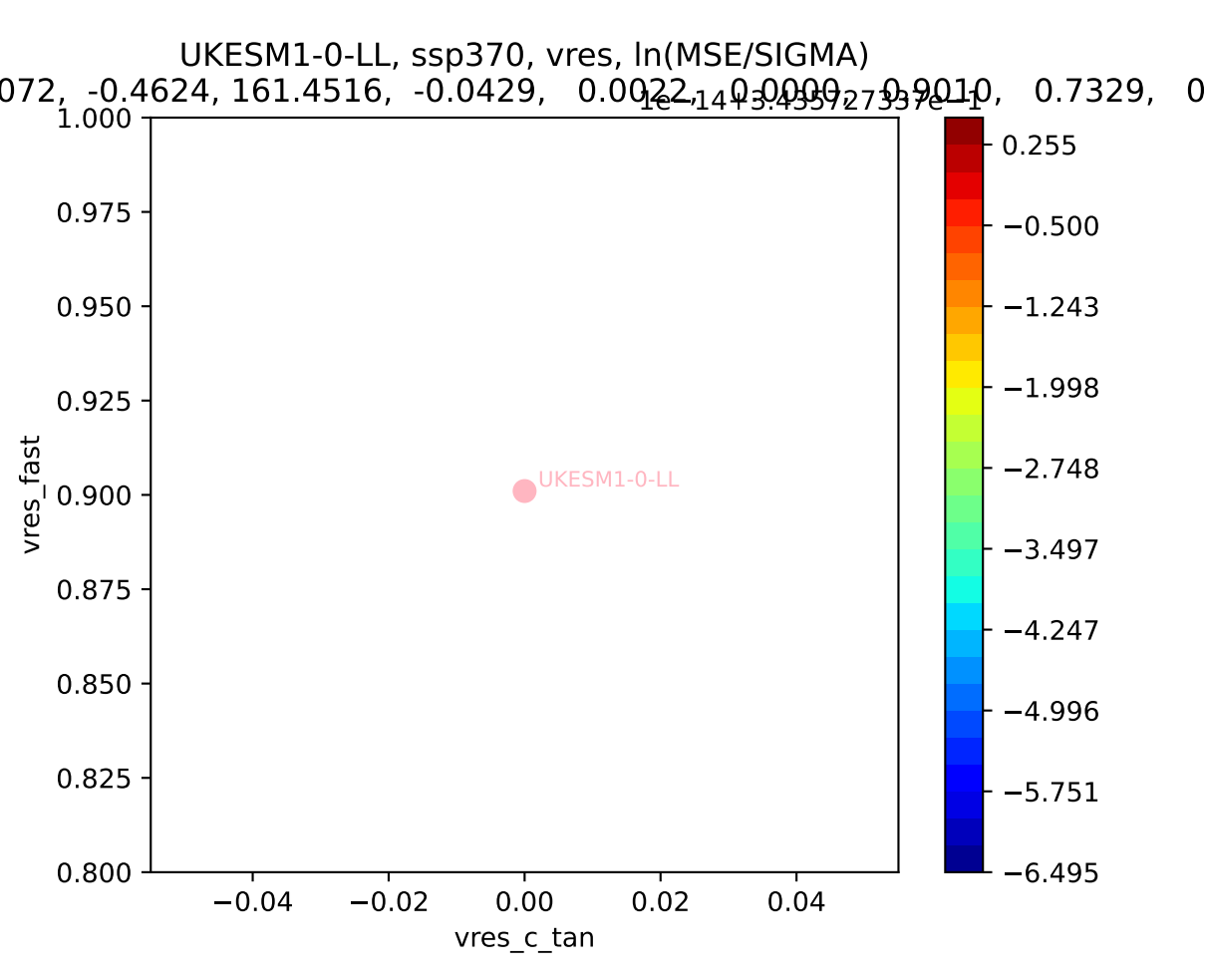

UKESM1-0-LL, ssp370, vres
ESM
Fit
vres
c_atm

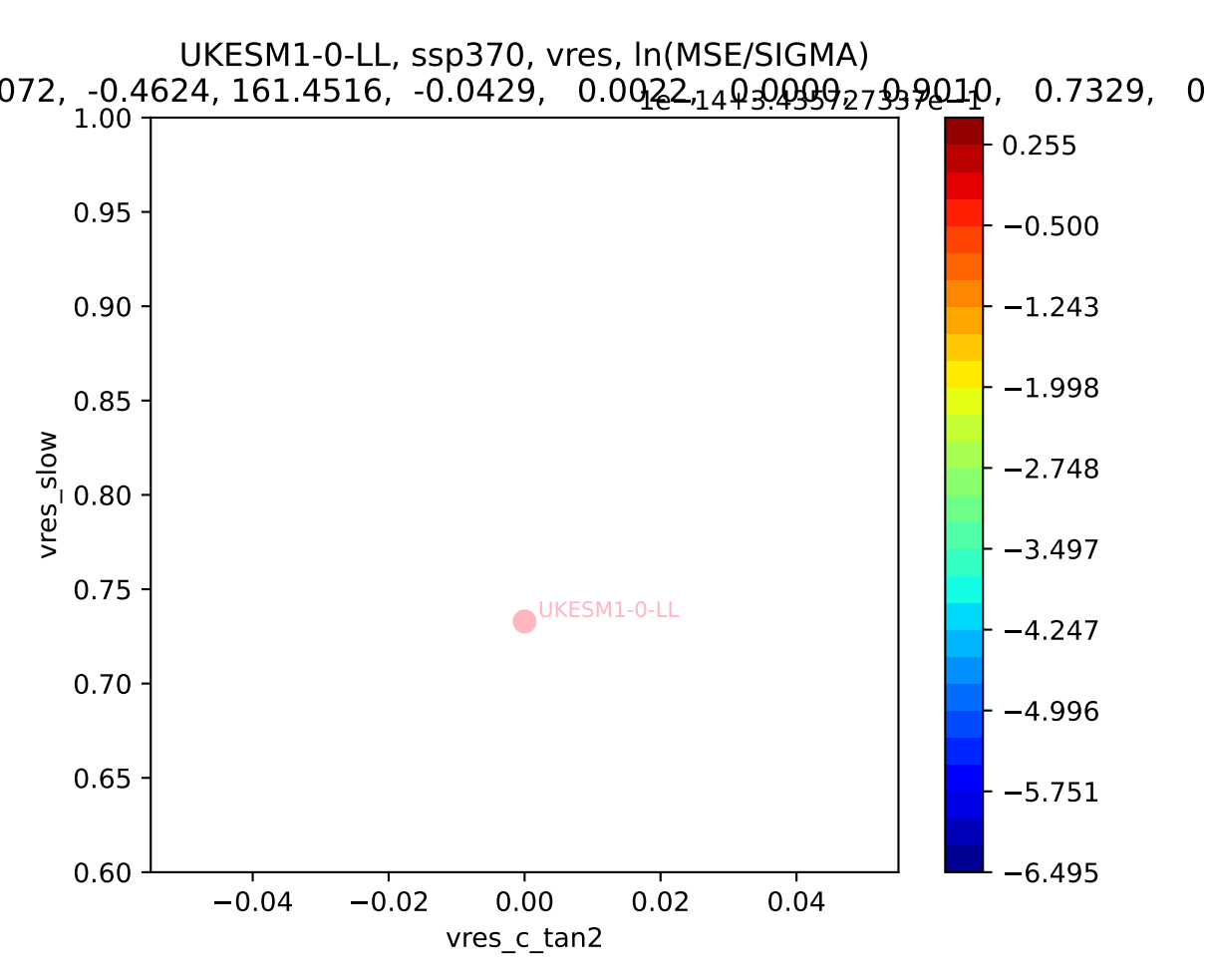

UKESM1-0-LL, ssp370, vres
ESM-Fit
vres, ESM - FIT
c_atm

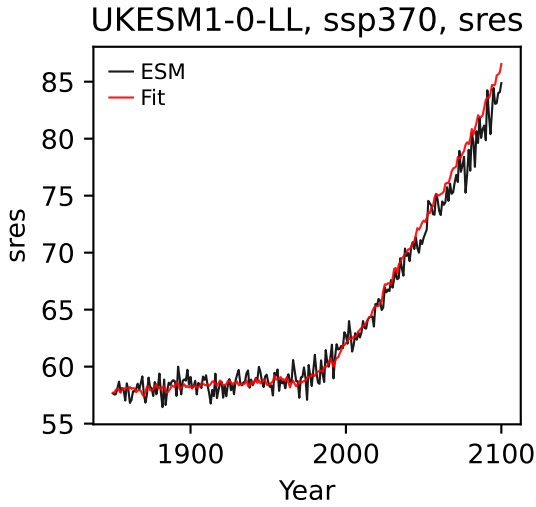

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4516, -0.0429, 0.0022, 0.0000, 0.9010, 0.7329, 0
UKESM1-0-LL
vres_t_e
vres_t_l
2
1
0
−1
−2
−3
9.0
8.1
7.2
6.3
5.4
4.5
3.6
2.7
1.8
0.9

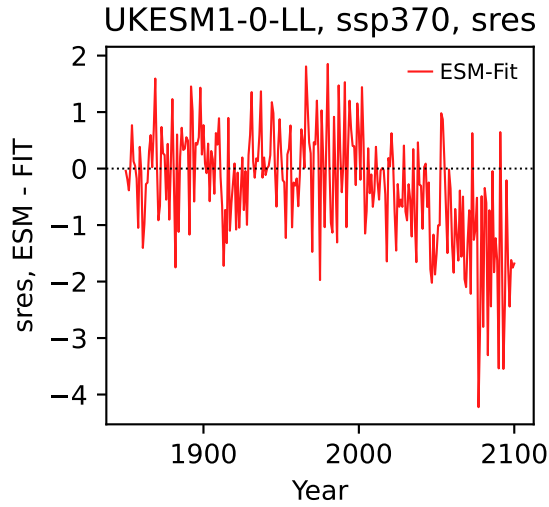

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4516, -0.0429, 0.0022, 0.0000, 0.9010, 0.7329, 0
vres_c_e
vres_c_l
UKESM1-0-LL
5
4
3
2
1
0
−1
−2
−3
−1
0
1
2
3
4
5
5.6
5.0
4.4
3.8
3.2
2.6
2.0
1.4
0.8
0.2

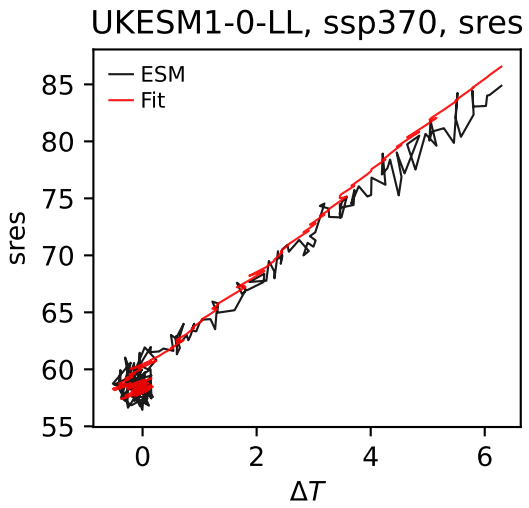

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4516, -0.0429, 0.0022, 0.0000, 0.9010, 0.7329, 0
UKESM1-0-LL
vres_hyst
vres_c_half
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
0
250
500
750
1000
1250
1500
1750
2000
8.75
7.75
6.75
5.75
4.75
3.75
2.75
1.75

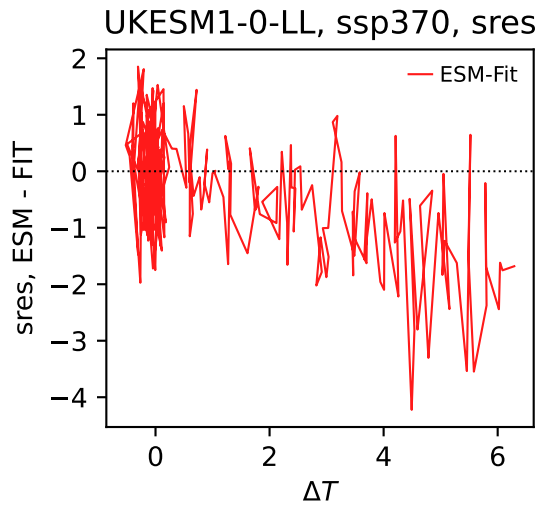

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4516, -0.0429, 0.0022, 0.0000, 0.9010, 0.7329, 0
1e−14+3.4357273 7e−1
1.000
0.975
0.950
0.925
0.900
0.875
0.850
0.825
0.800
vres_fast
UKESM1-0-LL
−0.04
−0.02
0.00
0.02
0.04
vres_c_tan
0.255
−0.500
−1.243
−1.998
−2.748
−3.497
−4.247
−4.996
−5.751
−6.495

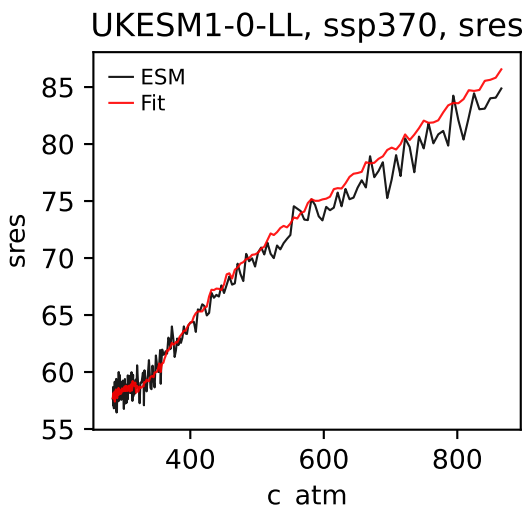

UKESM1-0-LL, ssp370, vres, ln(MSE/SIGMA)
072, -0.4624, 161.4516, -0.0429, 0.0022, 0.0000, 0.9010, 0.7329, 0
1e−14+3.43572737e−1
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
vres_slow
UKESM1-0-LL
−0.04
−0.02
0.00
0.02
0.04
vres_c_tan2
0.255
−0.500
−1.243
−1.998
−2.748
−3.497
−4.247
−4.996
−5.751
−6.495

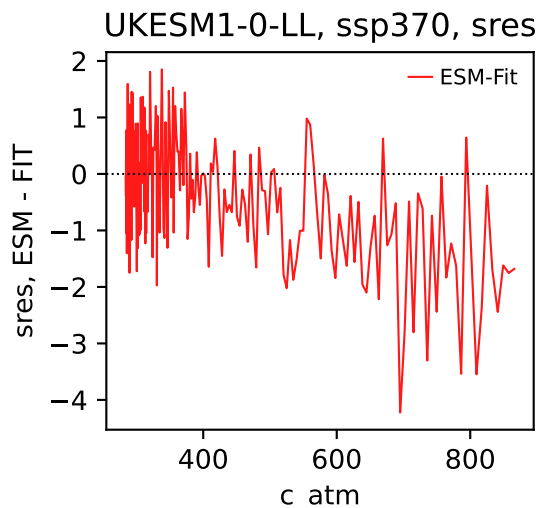

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
Year

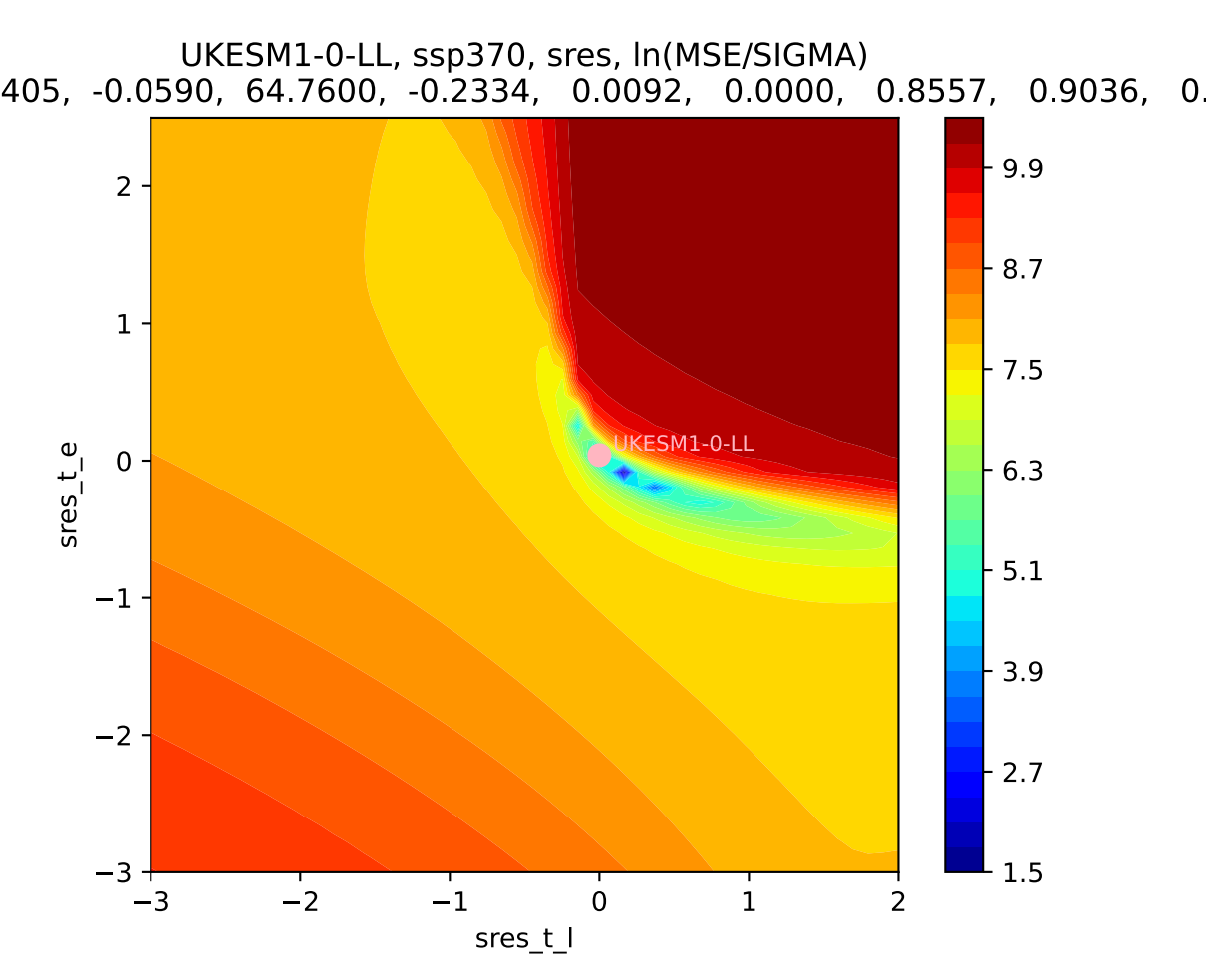

UKESM1-0-LL, ssp370, sres
ESM-Fit
sres, ESM - FIT
Year

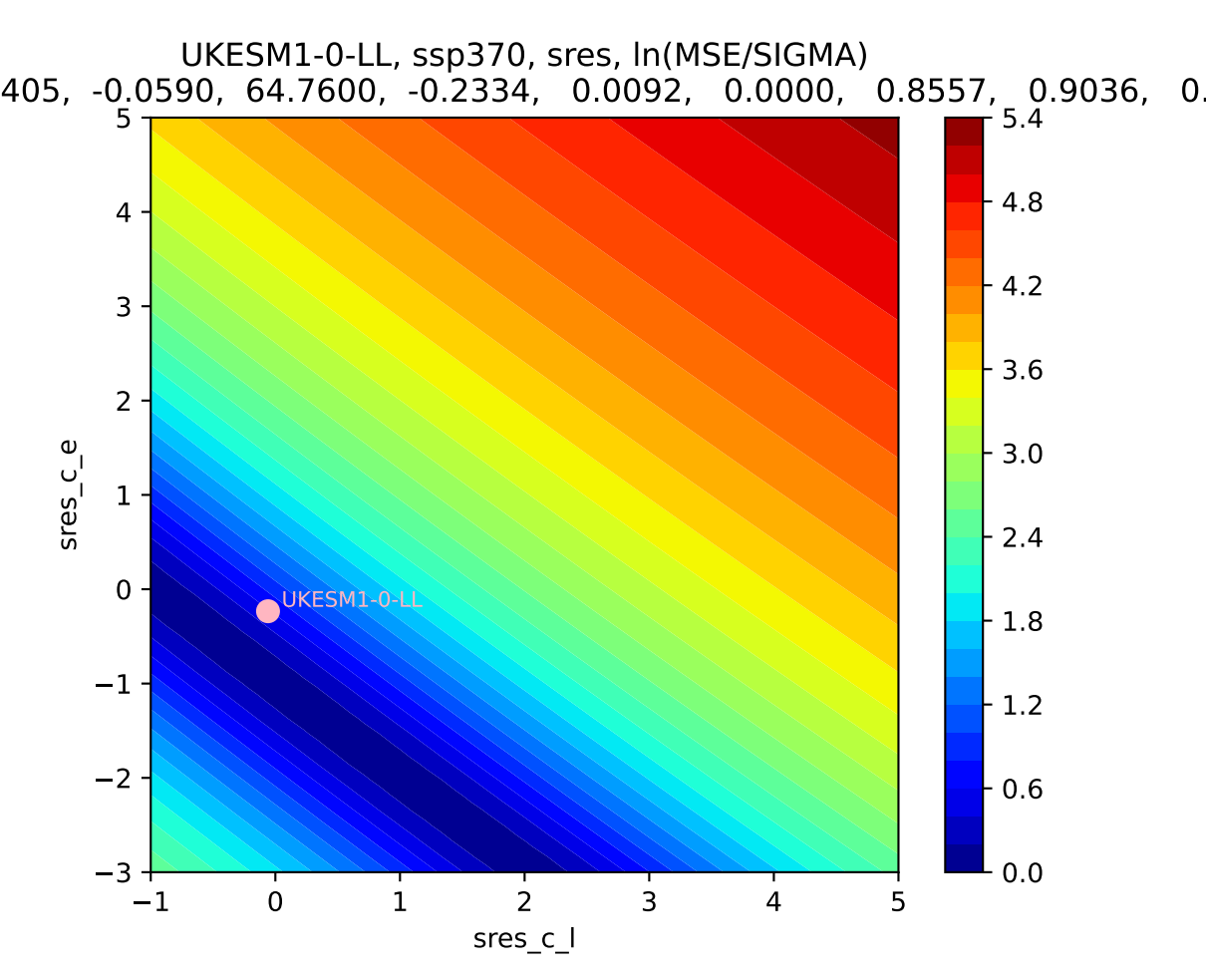

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
ΔT

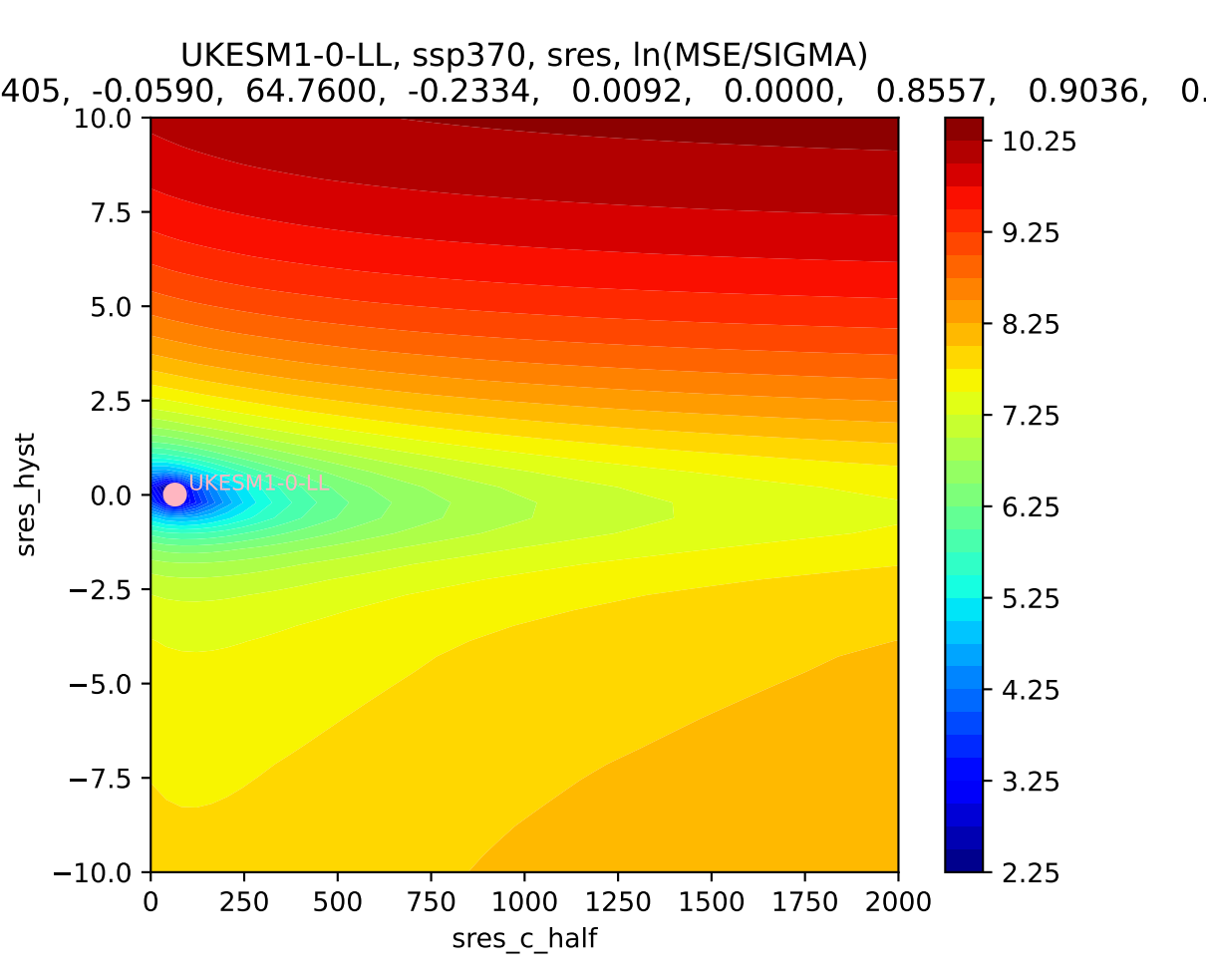

UKESM1-0-LL, ssp370, sres
ESM-Fit
sres, ESM - FIT
ΔT

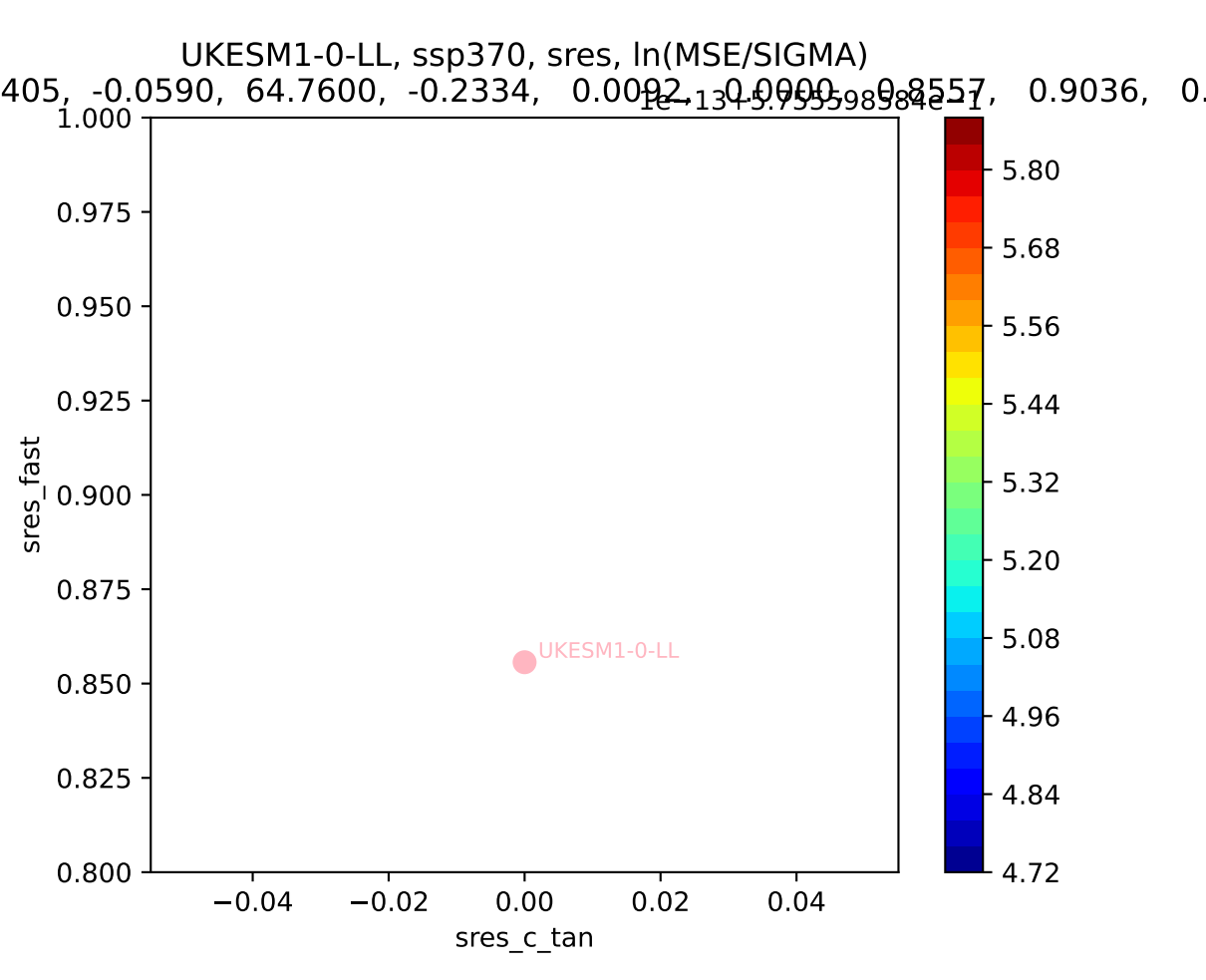

UKESM1-0-LL, ssp370, sres
ESM
Fit
sres
c_atm

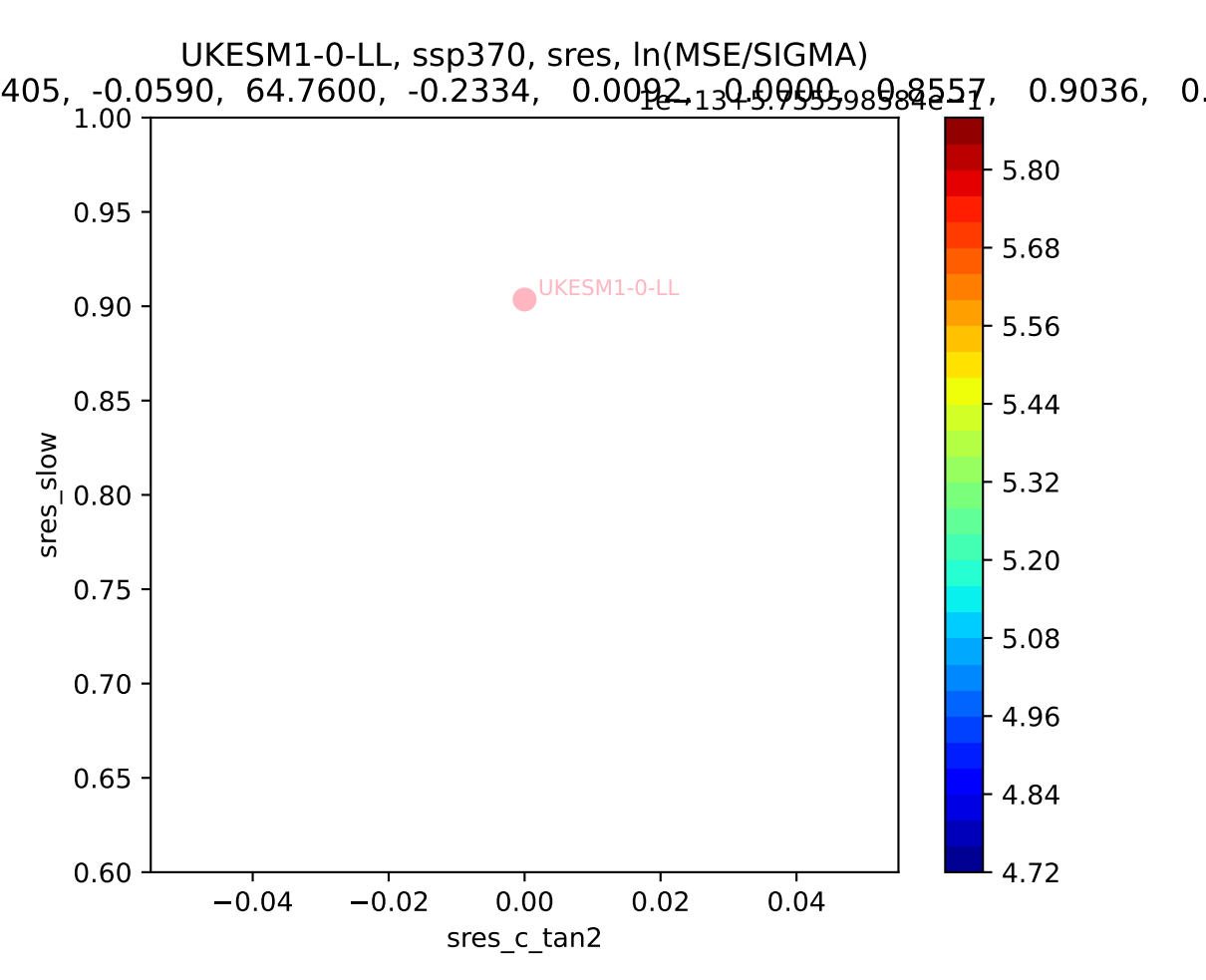

UKESM1-0-LL, ssp370, sres
ESM-Fit
sres, ESM - FIT
c_atm

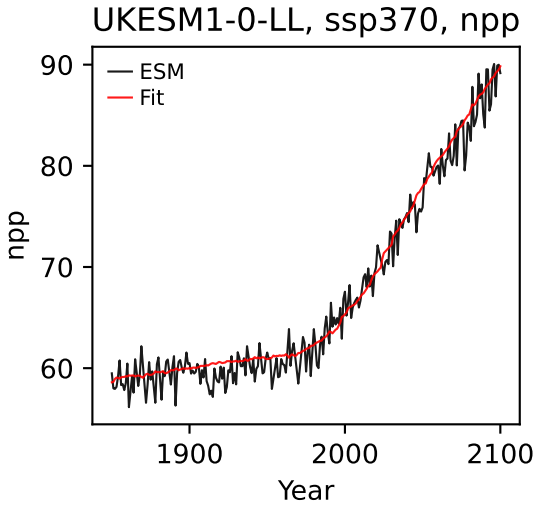

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0590, 64.7600, -0.2334, 0.0092, 0.0000, 0.8557, 0.9036, 0.
UKESM1-0-LL
sres_t_e
sres_t_l
−3
−2
−1
0
1
2
9.9
8.7
7.5
6.3
5.1
3.9
2.7
1.5

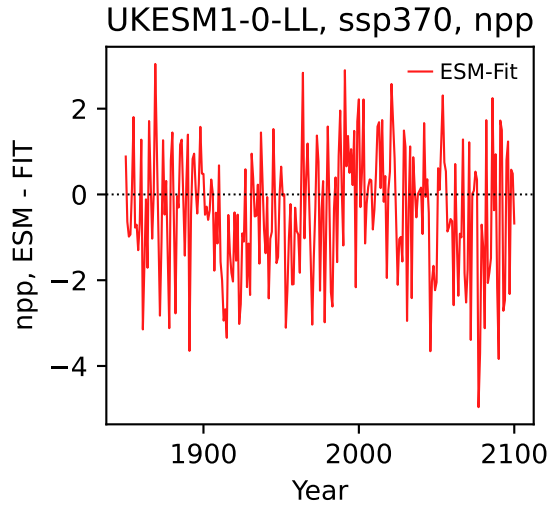

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0590, 64.7600, -0.2334, 0.0092, 0.0000, 0.8557, 0.9036, 0.
UKESM1-0-LL
sres_c_e
sres_c_l
5
4
3
2
1
0
−1
−2
−3
−1
0
1
2
3
4
5
5.4
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6
0.0

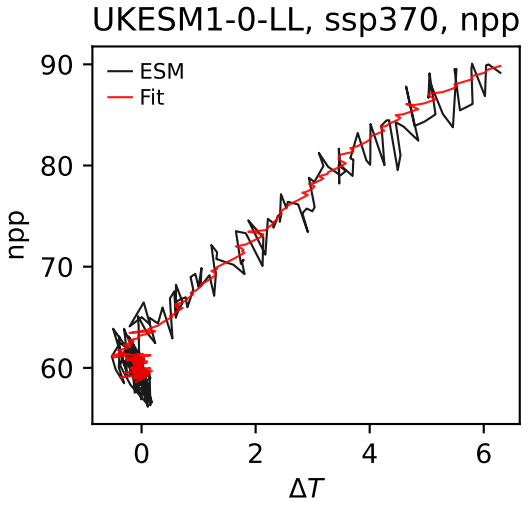

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0590, 64.7600, -0.2334, 0.0092, 0.0000, 0.8557, 0.9036, 0.
UKESM1-0-LL
sres_hyst
sres_c_half
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
0
250
500
750
1000
1250
1500
1750
2000
10.25
9.25
8.25
7.25
6.25
5.25
4.25
3.25
2.25

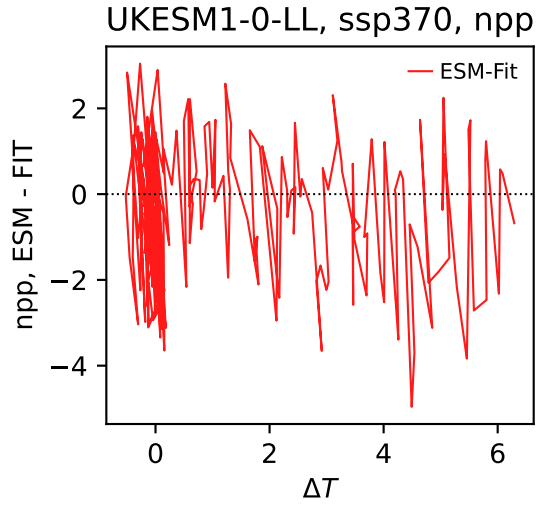

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0590, 64.7600, -0.2334, 0.0092, 0.0000, 0.8557, 0.9036, 0.
1e−13+5.755598584e−1
1.000
0.975
0.950
0.925
0.900
0.875
0.850
0.825
0.800
sres_fast
UKESM1-0-LL
−0.04
−0.02
0.00
0.02
0.04
sres_c_tan
5.80
5.68
5.56
5.44
5.32
5.20
5.08
4.96
4.84
4.72

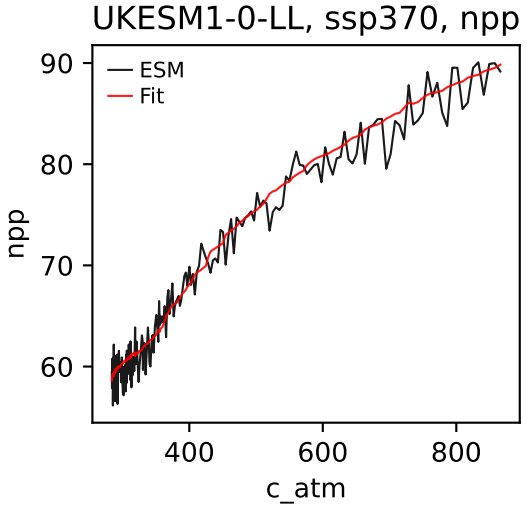

UKESM1-0-LL, ssp370, sres, ln(MSE/SIGMA)
405, -0.0590, 64.7600, -0.2334, 0.0092, 0.0000, 0.8557, 0.9036, 0.
1e−13+5.755598584e−1
UKESM1-0-LL
sres_slow
sres_c_tan2
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
−0.04
−0.02
0.00
0.02
0.04
5.80
5.68
5.56
5.44
5.32
5.20
5.08
4.96
4.84
4.72

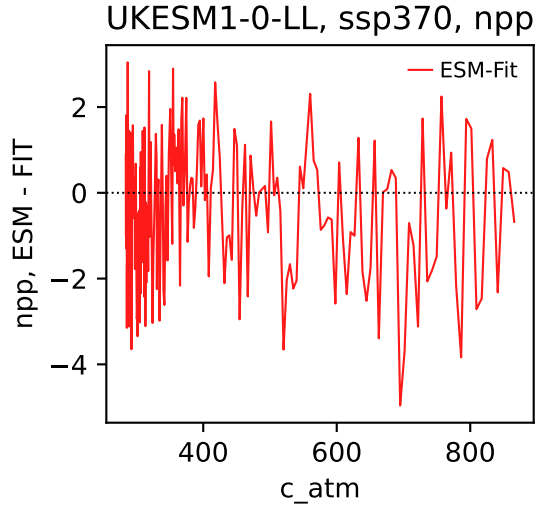

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
Year

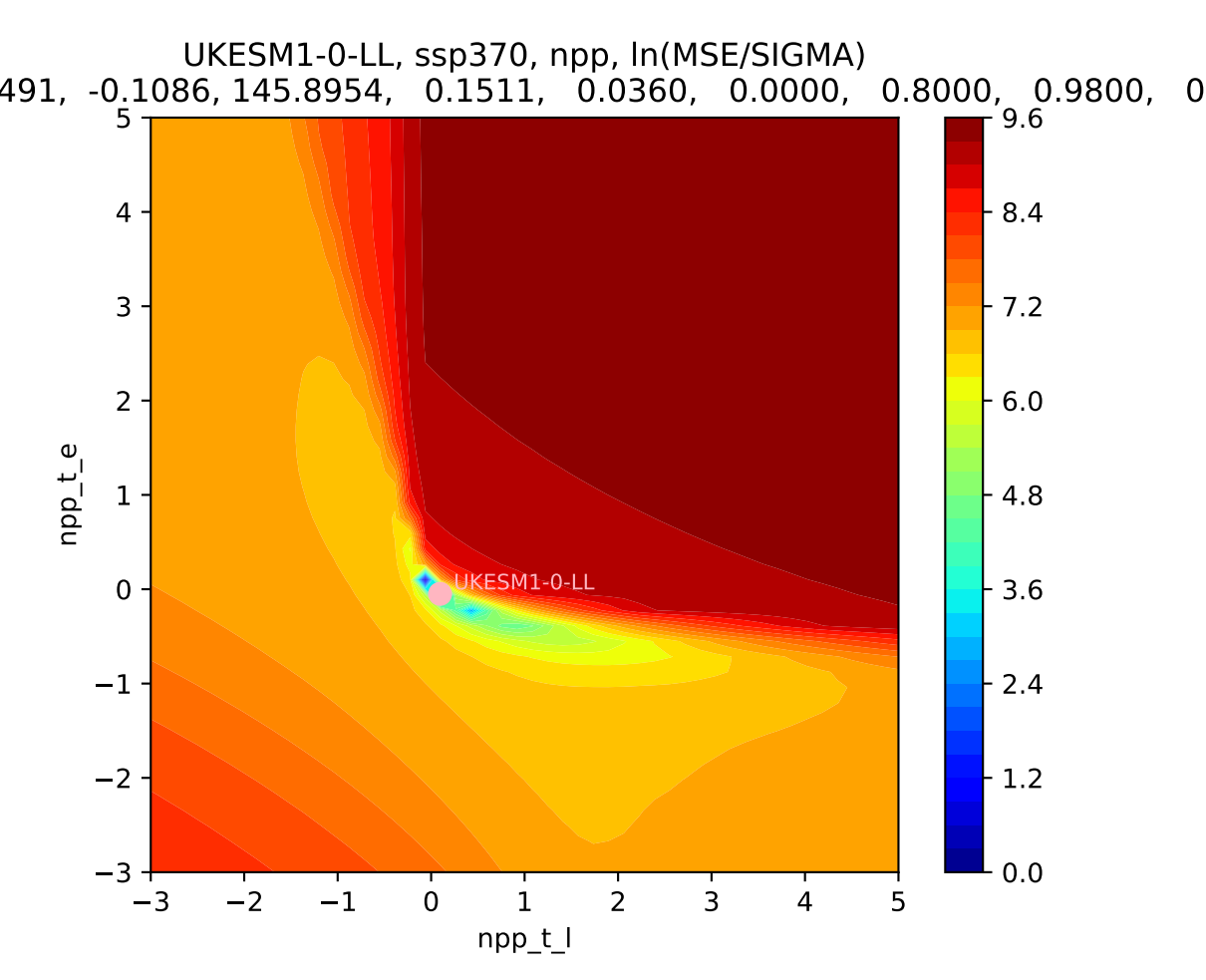

UKESM1-0-LL, ssp370, npp
ESM-Fit
npp, ESM - FIT
Year

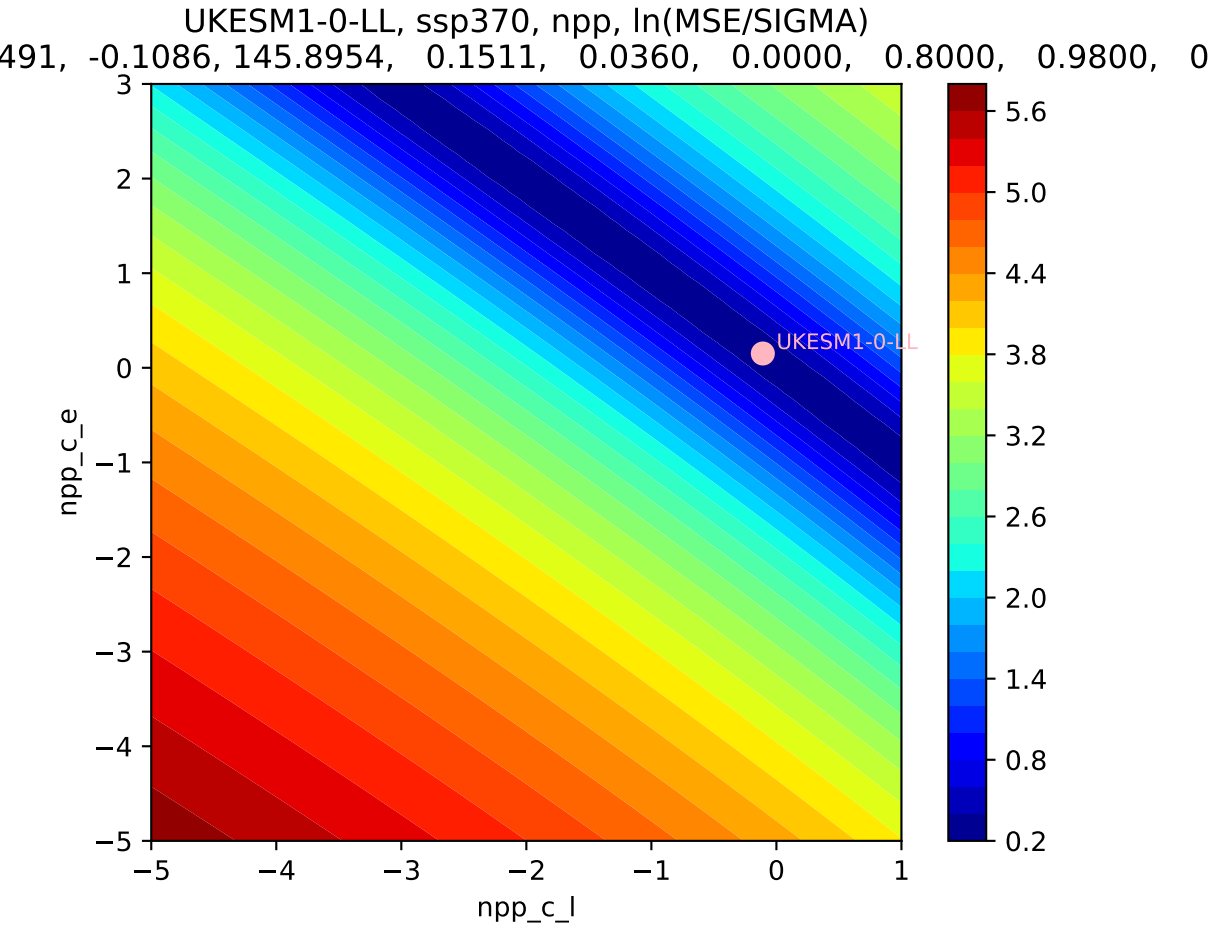

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
ΔT

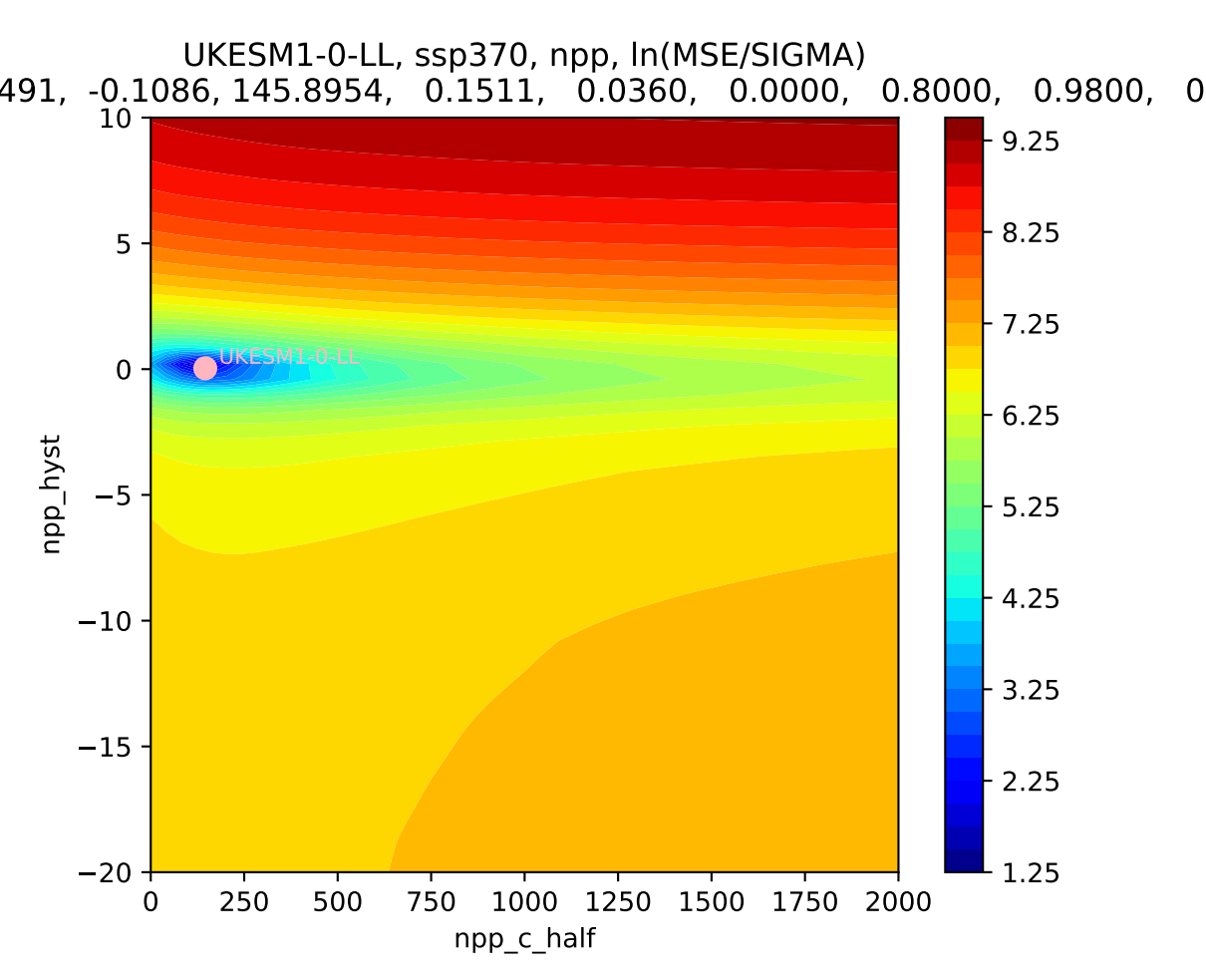

UKESM1-0-LL, ssp370, npp
ESM-Fit
npp, ESM - FIT
ΔT

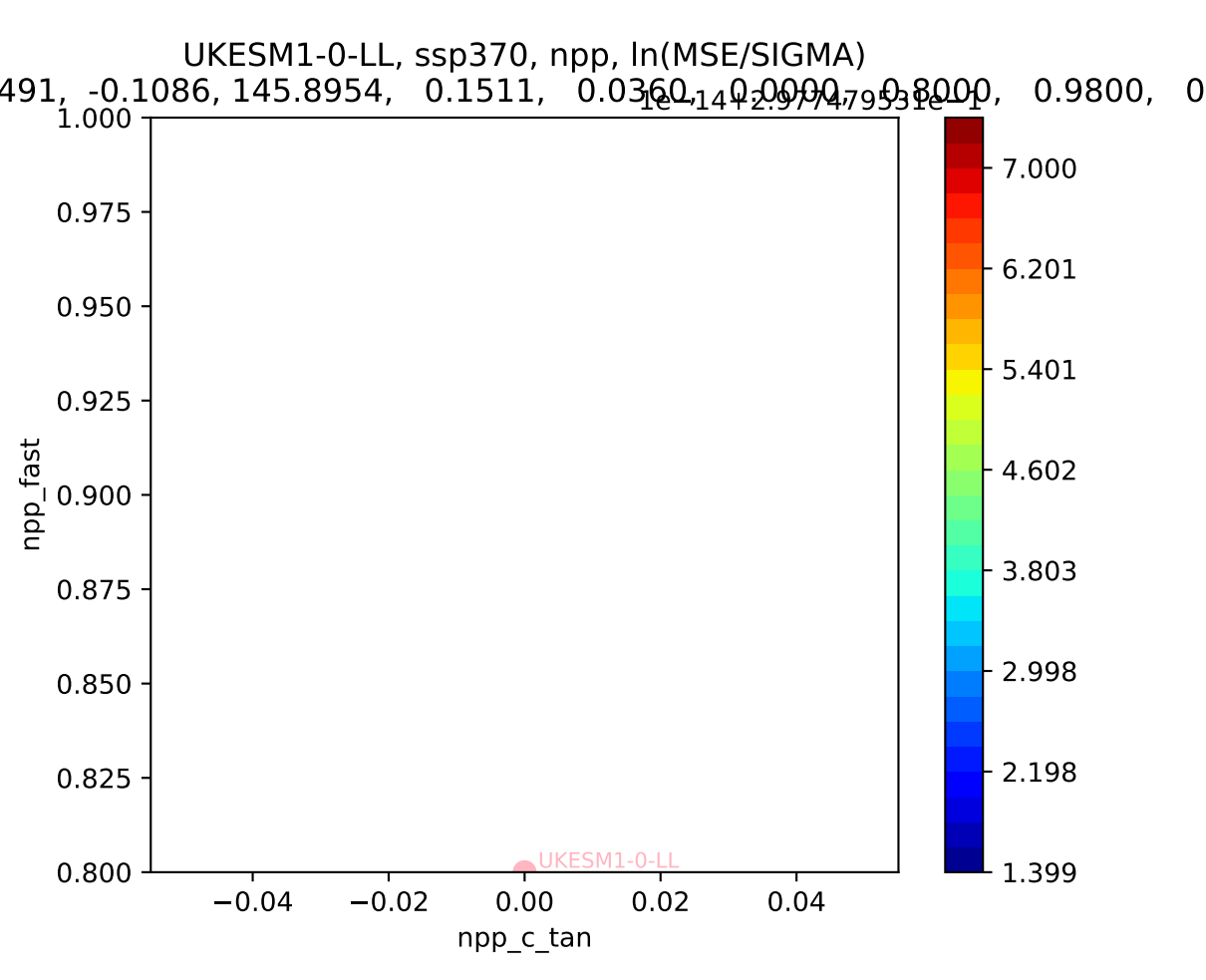

UKESM1-0-LL, ssp370, npp
ESM
Fit
npp
c_atm

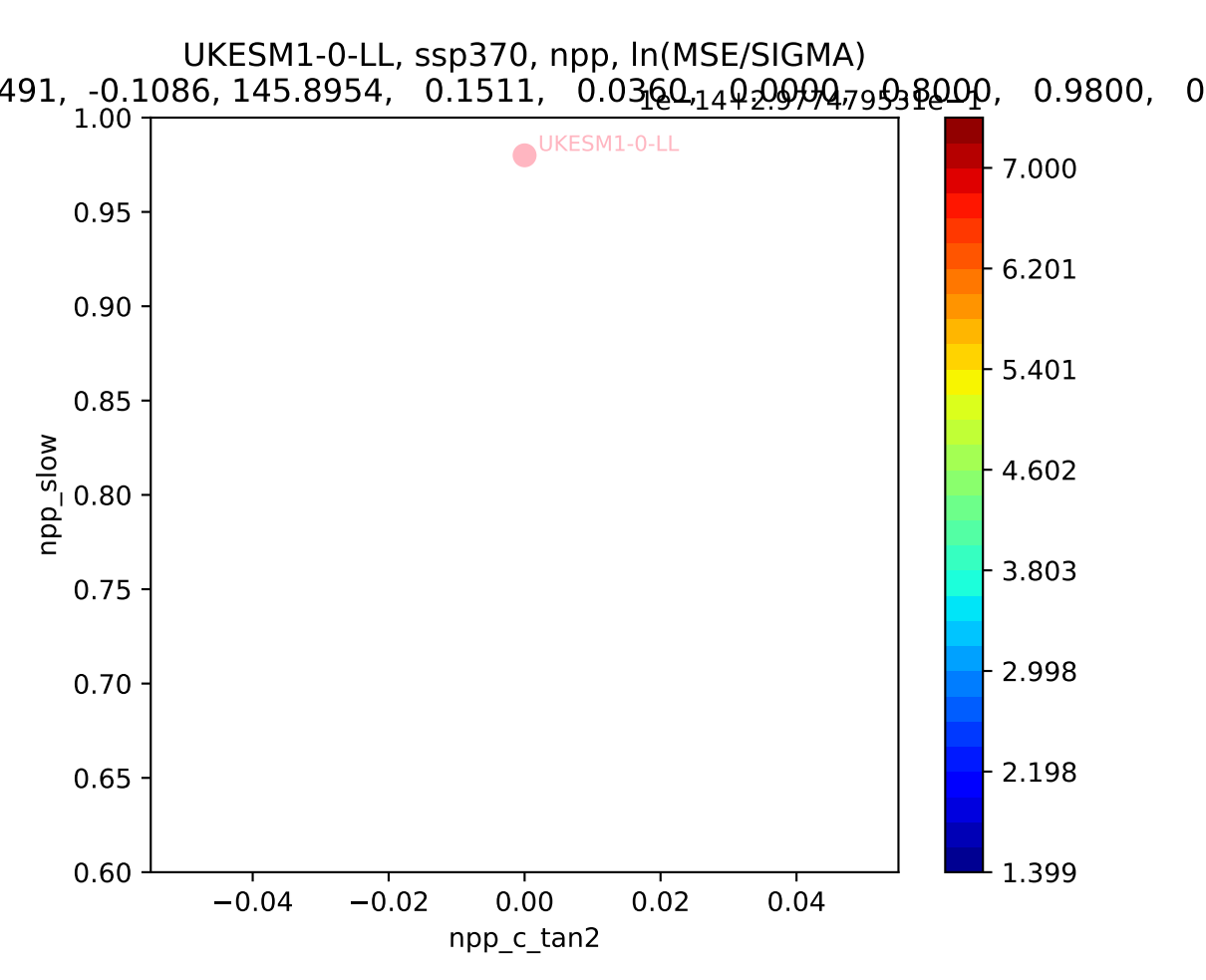

UKESM1-0-LL, ssp370, npp
ESM-Fit
npp, ESM - FIT
c_atm

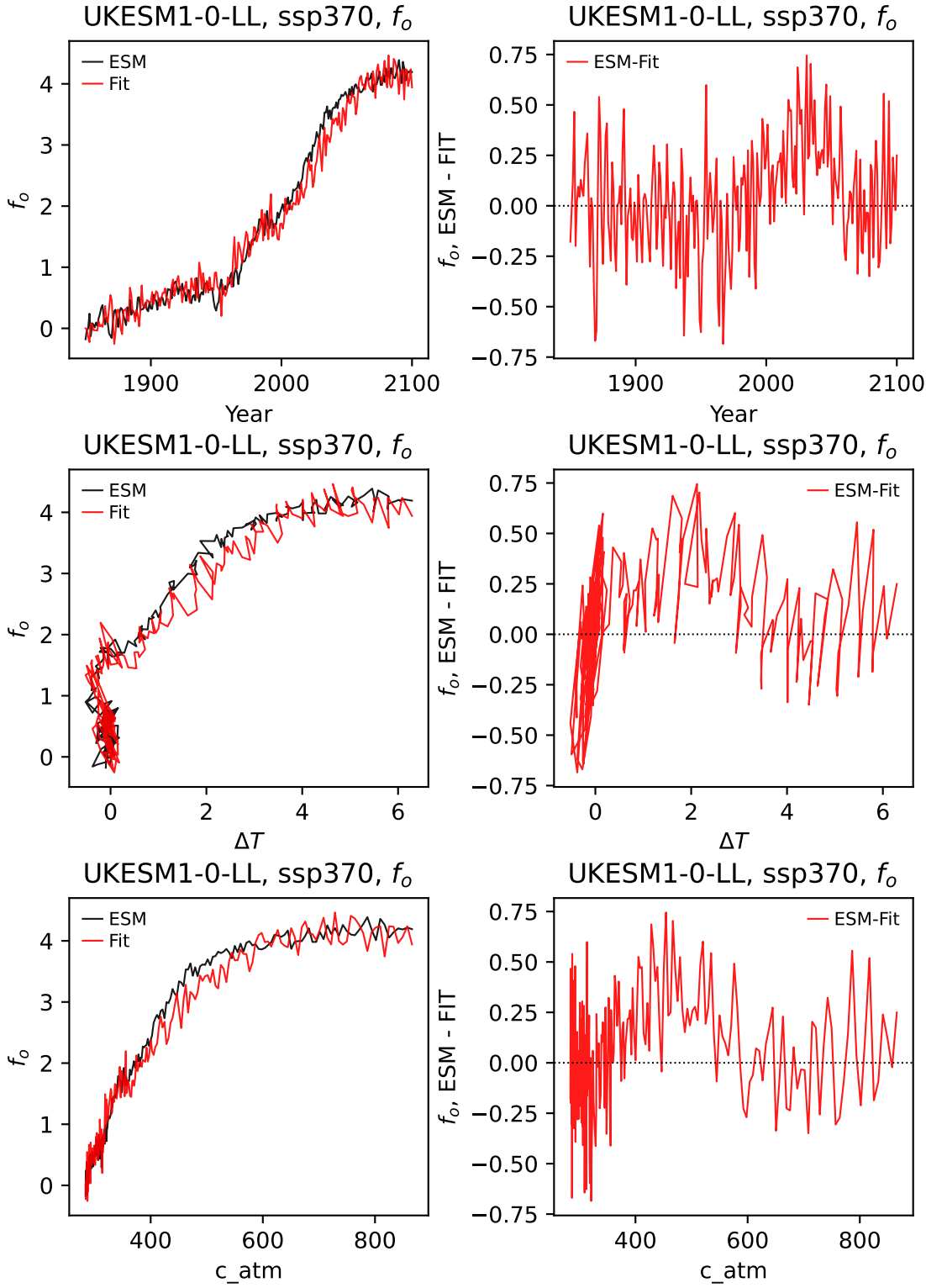

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8954, 0.1511, 0.0360, 0.0000, 0.8000, 0.9800, 0
UKESM1-0-LL
npp_t_e
npp_t_l
5
4
3
2
1
0
−1
−2
−3
−3
−2
−1
0
1
2
3
4
5
9.6
8.4
7.2
6.0
4.8
3.6
2.4
1.2
0.0

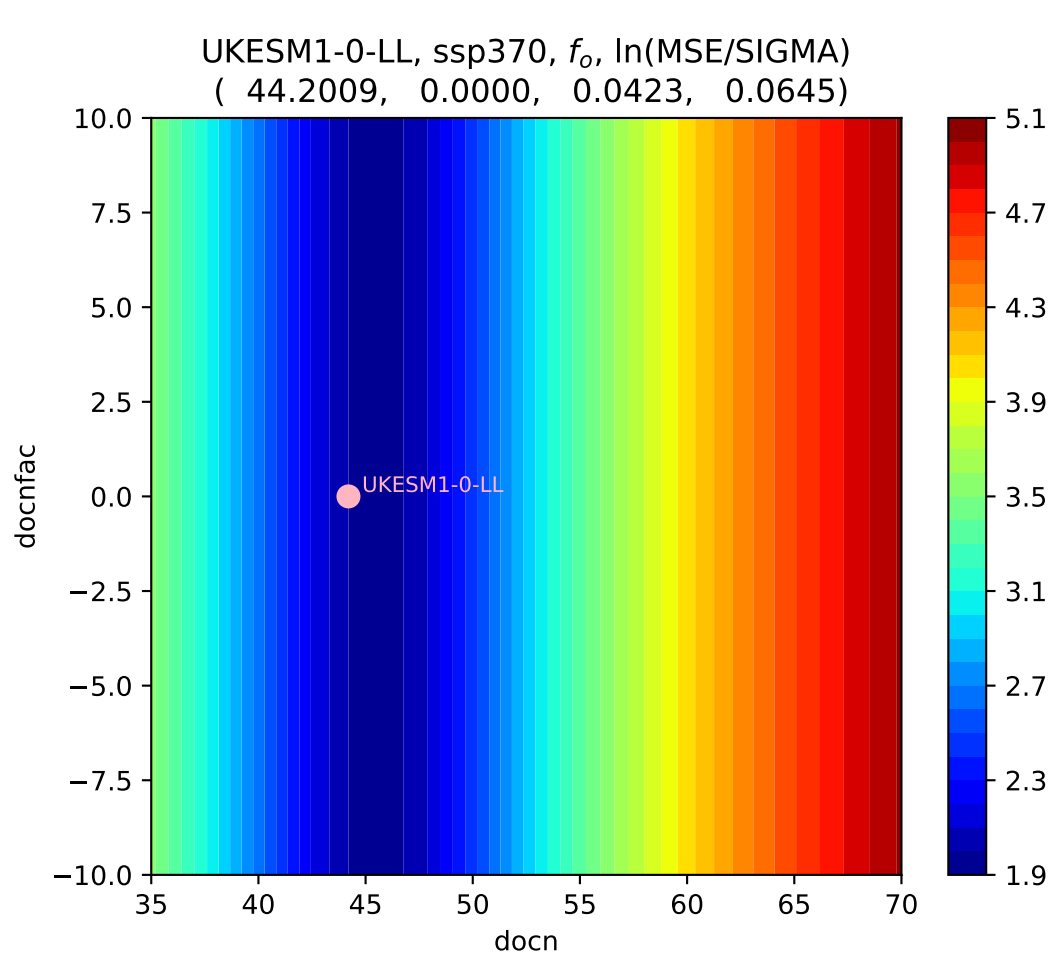

UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8954, 0.1511, 0.0360, 0.0000, 0.8000, 0.9800, 0
UKESM1-0-LL
npp_c_e
npp_c_l
3
2
1
0
−1
−2
−3
−4
−5
−5
−4
−3
−2
−1
0
1
5.6
5.0
4.4
3.8
3.2
2.6
2.0
1.4
0.8
0.2


UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8954, 0.1511, 0.0360, 0.0000, 0.8000, 0.9800, 0
UKESM1-0-LL
npp_hyst
npp_c_half
10
5
0
−5
−10
−15
−20
0
250
500
750
1000
1250
1500
1750
2000
9.25
8.25
7.25
6.25
5.25
4.25
3.25
2.25
1.25


UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8954, 0.1511, 0.0360, 0.0000, 0.8000, 0.9800, 0
1e−14 +2.9774795 31e−1
1.000
0.975
0.950
0.925
0.900
0.875
0.850
0.825
0.800
npp_fast
−0.04
−0.02
0.00
0.02
0.04
npp_c_tan
UKESM1-0-LL
7.000
6.201
5.401
4.602
3.803
2.998
2.198
1.399


UKESM1-0-LL, ssp370, npp, ln(MSE/SIGMA)
491, -0.1086, 145.8954, 0.1511, 0.0360, 0.0000, 0.8000, 0.9800, 0
1e−14+2.9774795316−1
UKESM1-0-LL
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
npp_slow
−0.04
−0.02
0.00
0.02
0.04
npp_c_tan2
7.000
6.201
5.401
4.602
3.803
2.998
2.198
1.399


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
$f_o$
$\Delta T$
UKESM1-0-LL, ssp370, $f_o$
ESM-Fit
$f_o$, ESM - FIT
$\Delta T$
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)
( 44.2009, 0.0000, 0.0423, 0.0645)
UKESM1-0-LL
docnfac
docn
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
−10.0
35
40
45
50
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5.1
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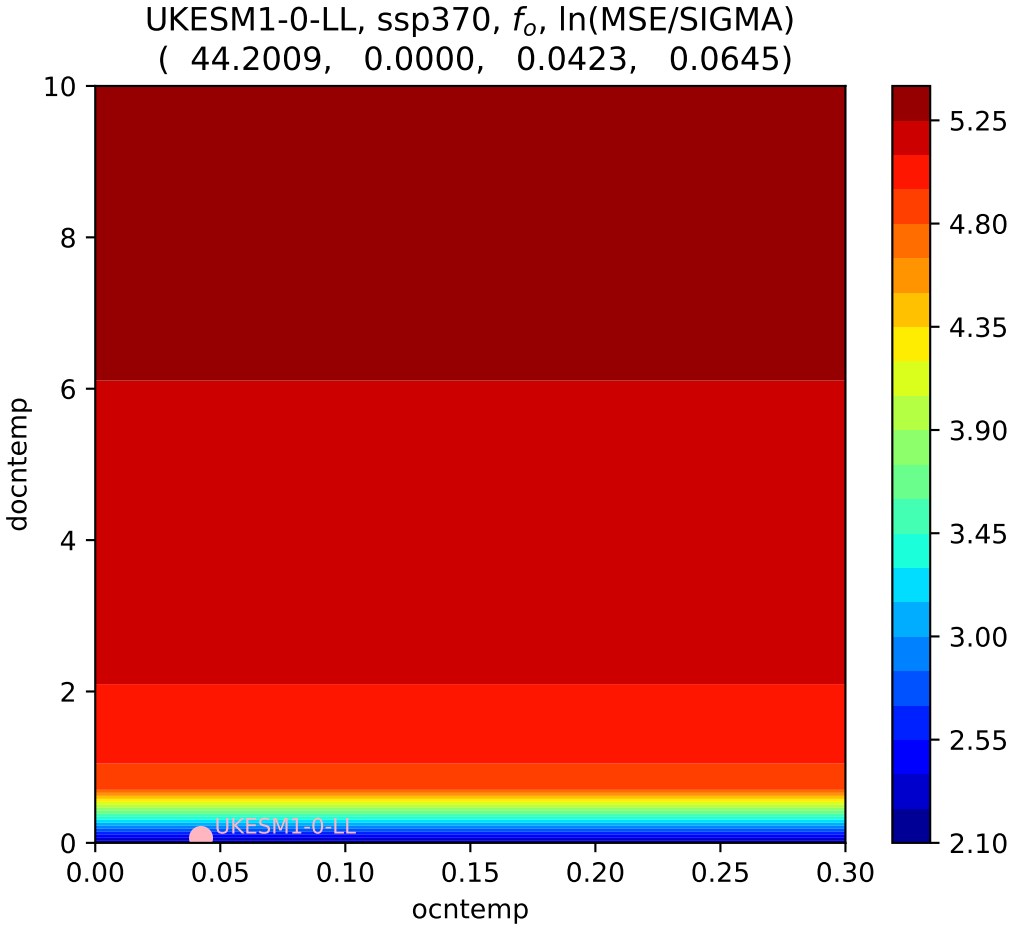
4.3
3.9
3.5
3.1
2.7
2.3
1.9


UKESM1-0-LL, ssp370, $f_o$, ln(MSE/SIGMA)
( 44.2009, 0.0000, 0.0423, 0.0645)
docntemp
ocntemp
UKESM1-0-LL
0
2
4
6
8
10
0.00
0.05
0.10
0.15
0.20
0.25
0.30
5.25
4.80
4.35
3.90
3.45
3.00
2.55
2.10