

**Erratum to T. Kuhlbrodt and J.M. Gregory (2012), “Ocean heat uptake and its consequences for the magnitude of sea level rise and climate change”, *Geophys. Res. Lett.*, 39, L18608, doi:10.1029/2012GL052952**

A careful reader has pointed out some errors in Kuhlbrodt and Gregory (2012) to us. These errors concern some numbers regarding the MPI-ESM model family. The model MPI-ESM-P was not properly labeled in Fig. 3 and should have appeared in Fig. 1 and in Table 1 of the Auxiliary Online Material. Also, in Fig. 3, panels a) and b) were not plotted from exactly the same data as in Table 1. While the changes are minor, and do not affect any of the conclusions of our paper, we would like to correct these two Figures and the Table.

The actual changes are the following: (i) Inclusion of model MPI-ESM-P in Figure 1; (ii) Corrected values for Figure 3, panel a) and b), and proper labelling of MPI-ESM-P using the letter “Z”; (iii) two amendments in the main text: In parag.12 it should read ”... ( $r=-0.34$  with  $p=0.045$  [one-sided])...”, and in parag. 13: ”The correlation ( $r=-0.65$ ) ...”; (iv) Inclusion of model MPI-ESM-P in Table 1 of the Auxiliary material, and inclusion of the numbers for NorESM1-M (which had been erroneously omitted). We took the opportunity to include the expansion efficiencies of some models in Table 1 since they have become available in the meantime. For these reasons, the mean and SD in Table 1 have changed slightly.

The corrected Figures and Table are included below.

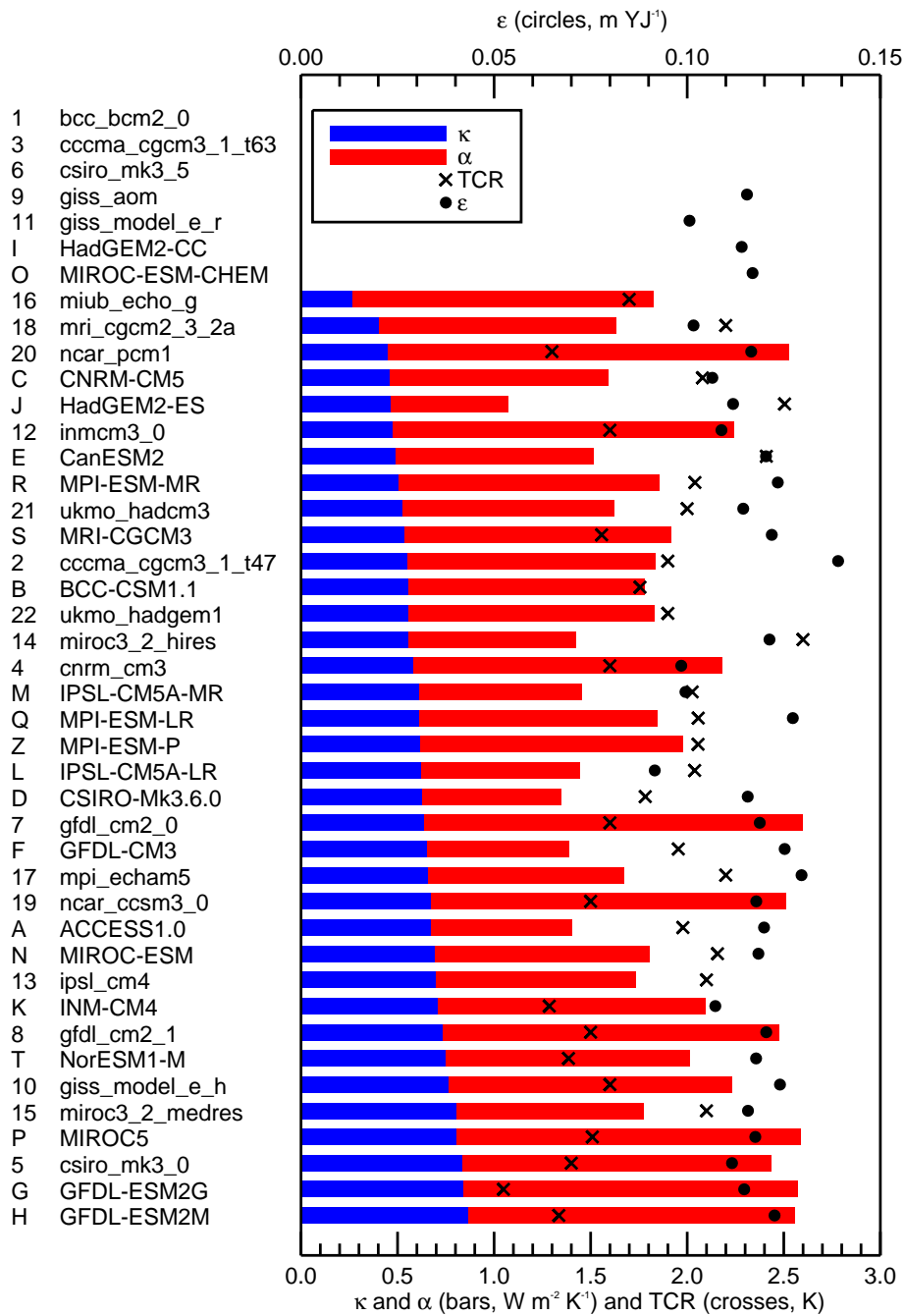


Figure 1, corrected

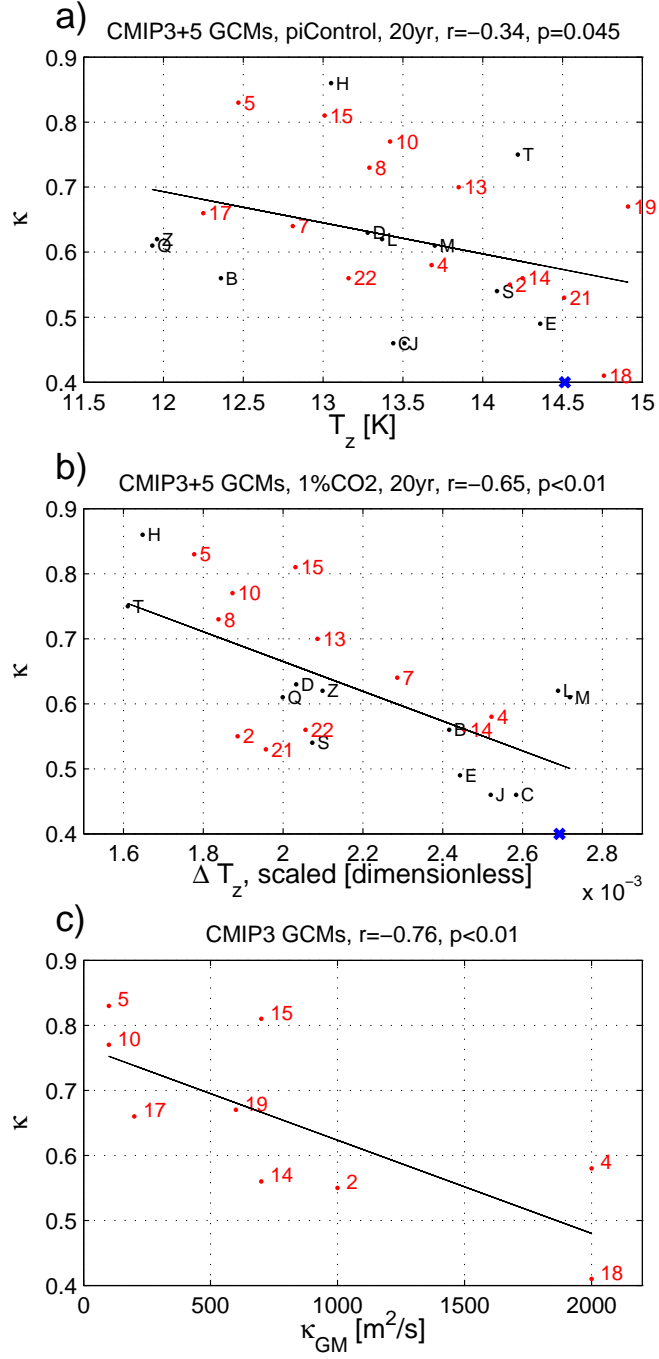


Figure 3, corrected

Table 1: (corrected) Forcing at the time of CO<sub>2</sub> doubling  $F_{2\times}$  (in  $W\ m^{-2}$ ), climate feedback parameter  $\alpha$  ( $\alpha_{4\times}$  from  $4\times CO_2$  and  $\alpha_{1p}$  from  $1\% CO_2/\text{year}$  runs), ocean heat uptake efficiency  $\kappa$ , climate resistance  $\rho$  (all in  $W\ m^{-2}\ K^{-1}$ ), transient climate response (in K) and expansion efficiency of heat  $\epsilon$  (in  $m\ YJ^{-1}$ ) for the CMIP3 models (with numbers, data for  $\alpha_{1p}$ ,  $\kappa$  and  $\rho$  from *Gregory and Forster, 2008*) and the CMIP5 models (with letters). For the CMIP3 models,  $F_{2\times}$  and  $\alpha_{4\times}$  could not be diagnosed.

	Model	$\alpha_{1p}$	$\kappa$	$\rho$	TCR	$\epsilon$	Model	$F_{2\times}$	$\alpha_{4\times}$	$\alpha_{1p}$	$\kappa$	$\rho$	TCR	$\epsilon$	
1	bcc_bcm2.0	—	—	—	—	—	A	ACCESS1.0	2.91	0.75	0.73	0.67	1.40	1.98	0.120
2	cccma_cgcm3.1_t47	1.28	0.55	1.83	1.90	0.139	B	BCC-CSM1.1	3.37	1.20	1.22	0.56	1.78	1.76	—
3	cccma_cgcm3.1_t63	—	—	—	—	—	C	CNRM-CM5	3.68	1.13	1.13	0.46	1.59	2.08	0.107
4	cnrm_cm3	1.60	0.58	2.18	1.60	0.098	D	CSIRO-Mk3.6.0	2.56	0.62	0.72	0.63	1.35	1.78	0.116
5	csiro_mk3.0	1.60	0.83	2.44	1.40	0.112	E	CanESM2	3.81	1.03	1.03	0.49	1.52	2.41	0.120
6	csiro_mk3.5	—	—	—	—	—	F	GFDL-CM3	2.97	0.74	0.74	0.65	1.39	1.95	0.125
7	gfdl_cm2.0	1.96	0.64	2.60	1.60	0.119	G	GFDL-ESM2G	3.01	1.24	1.73	0.84	2.57	1.05	0.115
8	gfdl_cm2.1	1.74	0.73	2.48	1.50	0.120	H	GFDL-ESM2M	3.37	1.38	1.69	0.86	2.56	1.34	0.123
9	giss_aom	—	—	—	—	0.115	I	HadGEM2-CC	—	—	—	—	—	—	0.114
10	giss_model_e_h	1.46	0.77	2.23	1.60	0.124	J	HadGEM2-ES	2.89	0.62	0.61	0.46	1.07	2.50	0.112
11	giss_model_e_r	—	—	—	—	0.101	K	INM-CM4	3.02	1.46	1.38	0.71	2.10	1.29	0.107
12	inmcm3.0	1.77	0.48	2.24	1.60	0.109	L	IPSL-CM5A-LR	3.15	0.78	0.82	0.62	1.45	2.04	0.092
13	ipsl_cm4	1.03	0.70	1.73	2.10	—	M	IPSL-CM5A-MR	3.27	0.79	0.84	0.61	1.45	2.03	0.100
14	miroc3.2_hires	0.87	0.56	1.43	2.60	0.121	N	MIROC-ESM	4.24	0.91	1.11	0.70	1.81	2.16	0.118
15	miroc3.2_medres	0.97	0.81	1.77	2.10	0.116	O	MIROC-ESM-CHEM	—	—	—	—	—	—	0.117
16	miub_echo_g	1.56	0.27	1.82	1.70	—	P	MIROC5	4.10	1.50	1.78	0.81	2.59	1.51	0.118
17	mpi_echam5	1.01	0.66	1.67	2.20	0.130	Q	MPI-ESM-LR	4.06	1.11	1.23	0.61	1.85	2.06	0.127
18	mri_cgcm2.3.2a	1.23	0.41	1.63	2.20	0.102	R	MPI-ESM-MR	4.04	1.16	1.35	0.50	1.85	2.04	0.123
19	ncar_ccsm3.0	1.84	0.67	2.51	1.50	0.118	S	MRI-CGCM3	3.10	1.17	1.38	0.54	1.92	1.56	0.122
20	ncar_pcm1	2.08	0.45	2.52	1.30	0.117	T	NorESM1-M	3.10	1.10	1.26	0.75	2.01	1.39	0.118
21	ukmo_hadcm3	1.09	0.53	1.62	2.00	0.114	Z	MPI-ESM-P	4.26	1.23	1.36	0.62	1.98	2.06	—
22	ukmo_hadgem1	1.27	0.56	1.87	1.90	—									
	mean	1.43	0.60	2.04	1.81	0.116		mean	3.42	1.05	1.16	0.64	1.80	1.84	0.115
	SD	0.37	0.15	0.38	0.35	0.011		SD	0.53	0.27	0.36	0.12	0.44	0.39	0.009