

Supplemental Information for:

Forced summer stationary waves: the opposing effects of direct radiative forcing and sea surface warming

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TABLE S1. Anomaly correlation coefficients between 200 hPa meridional wind responses denoted by their figure panel, computed over the latitude band 30°N-70°N. Patterns in Fig. 2b, Fig. 2d and Fig. 5d have been multiplied by -1 before computing the correlations.

	Fig. 1a	Fig. 1b	Fig. 1c	Fig. 2c	Fig. 2d	Fig. 2a	Fig. 2b	Fig. 5c	Fig. 5d	Fig. 6f	Fig. 6g
Fig. 1a	1	0.70	0.80	0.85	0.75	0.84	0.45	0.29	0.37	0.39	0.06
Fig. 1b	-	1	0.72	0.70	0.58	0.71	0.49	0.26	0.15	0.32	0.08
Fig. 1c	-	-	1	0.77	0.69	0.73	0.40	0.28	0.32	0.37	0.09
Fig. 2c	-	-	-	1	0.68	0.66	0.36	0.25	0.34	0.34	-0.05
Fig. 2d	-	-	-	-	1	0.77	0.67	0.16	0.17	0.21	0.07
Fig. 2a	-	-	-	-	-	1	0.60	0.21	0.20	0.28	0.18
Fig. 2b	-	-	-	-	-	-	1	0.18	0.01	0.19	0.24
Fig. 5c	-	-	-	-	-	-	-	1	0.62	0.93	0.52
Fig. 5d	-	-	-	-	-	-	-	-	1	0.71	0.18
Fig. 6f	-	-	-	-	-	-	-	-	-	1	0.46
Fig. 6g	-	-	-	-	-	-	-	-	-	-	1

TABLE S2. Anomaly correlation coefficients between precipitation responses denoted by their figure panel, computed over the latitude band 15°N-5°S and across longitudes 60°W-60°E. Patterns in Fig. 2b and Fig. 2d have been multiplied by -1 before computing the correlations.

	Fig. 1a	Fig. 1b	Fig. 1c	Fig. 2c	Fig. 2d	Fig. 2a	Fig. 2b
Fig. 1a	1	0.45	0.51	0.88	0.57	0.74	0.67
Fig. 1b	-	1	0.47	0.52	0.37	0.53	0.37
Fig. 1c	-	-	1	0.54	0.42	0.54	0.51
Fig. 2c	-	-	-	1	0.62	0.72	0.66
Fig. 2d	-	-	-	-	1	0.49	0.57
Fig. 2a	-	-	-	-	-	1	0.83
Fig. 2b	-	-	-	-	-	-	1

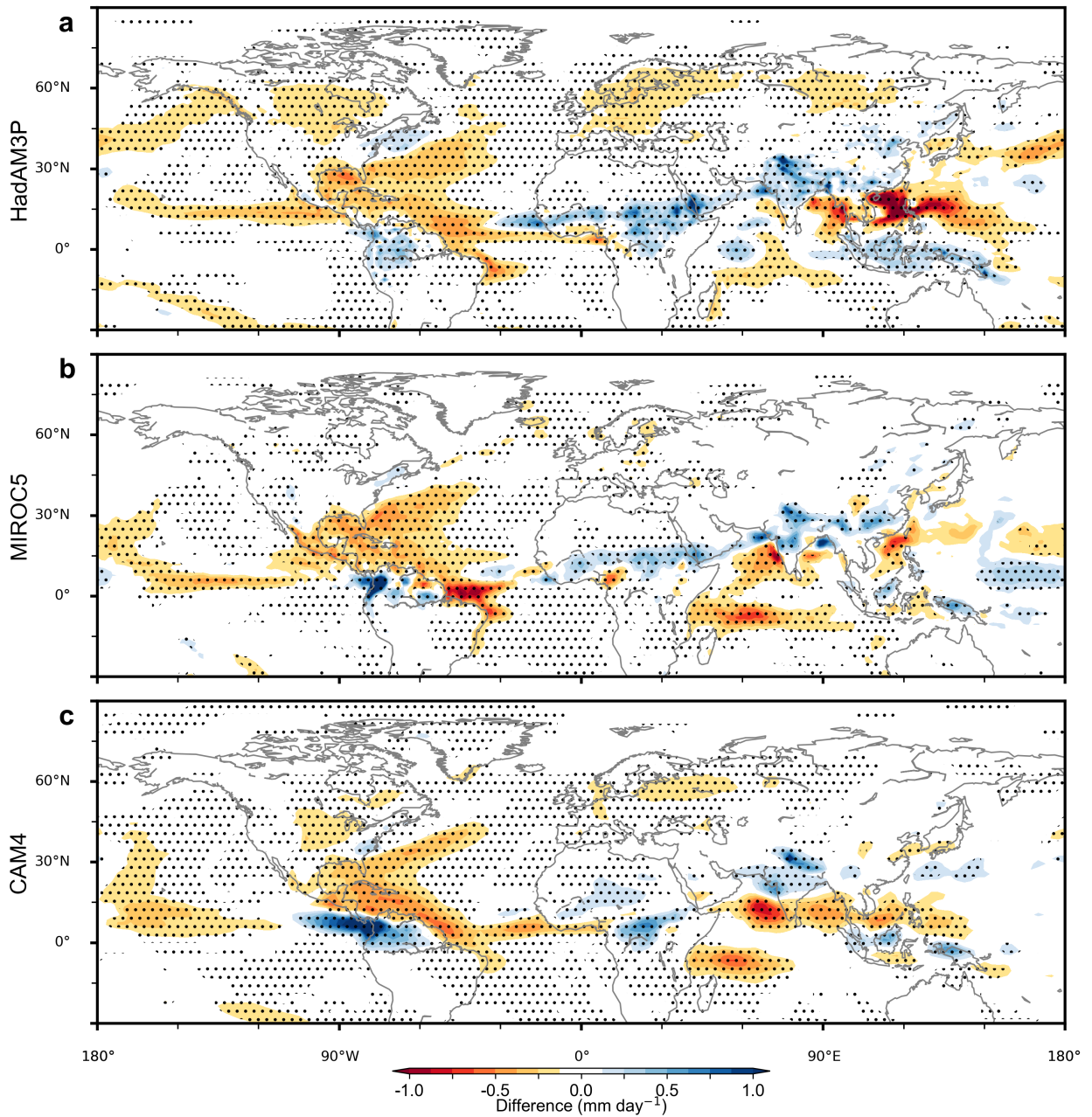


FIG. S1. Significance of responses of the different models to CO₂ forcing. (a) HadAM3P CO₂, (b) MIROC5 CO₂ and (c) CAM4 CO₂. Colours show the JJA precipitation response. The CAM4 response has been multiplied subjectively by 2.5 to be plotted on the same scale as the other two model responses. Stippling shows significance between the means of the two sets of 10-year means for each ensemble member which is calculated using a two-tailed *t*-test at the 5% level.

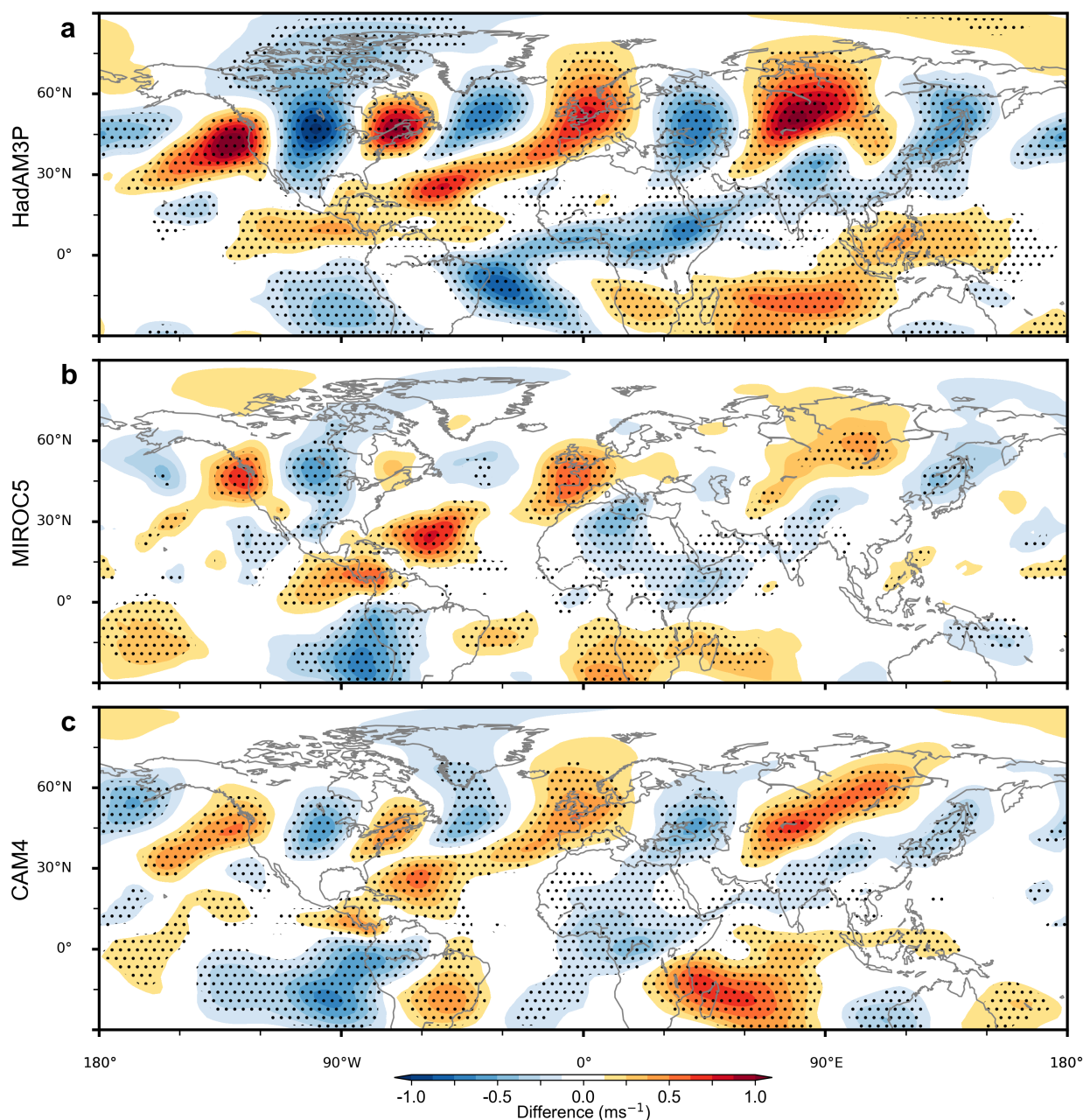


FIG. S2. Significance of responses of the different models to CO₂ forcing. (a) HadAM3P CO₂, (b) MIROC5 CO₂ and (c) CAM4 CO₂. Colours show the JJA 200 hPa meridional wind response. The CAM4 response has been multiplied subjectively by 2.5 to be plotted on the same scale as the other two model responses. Stippling shows significance between the means of the two sets of 10-year means for each ensemble member which is calculated using a two-tailed t -test at the 5% level.

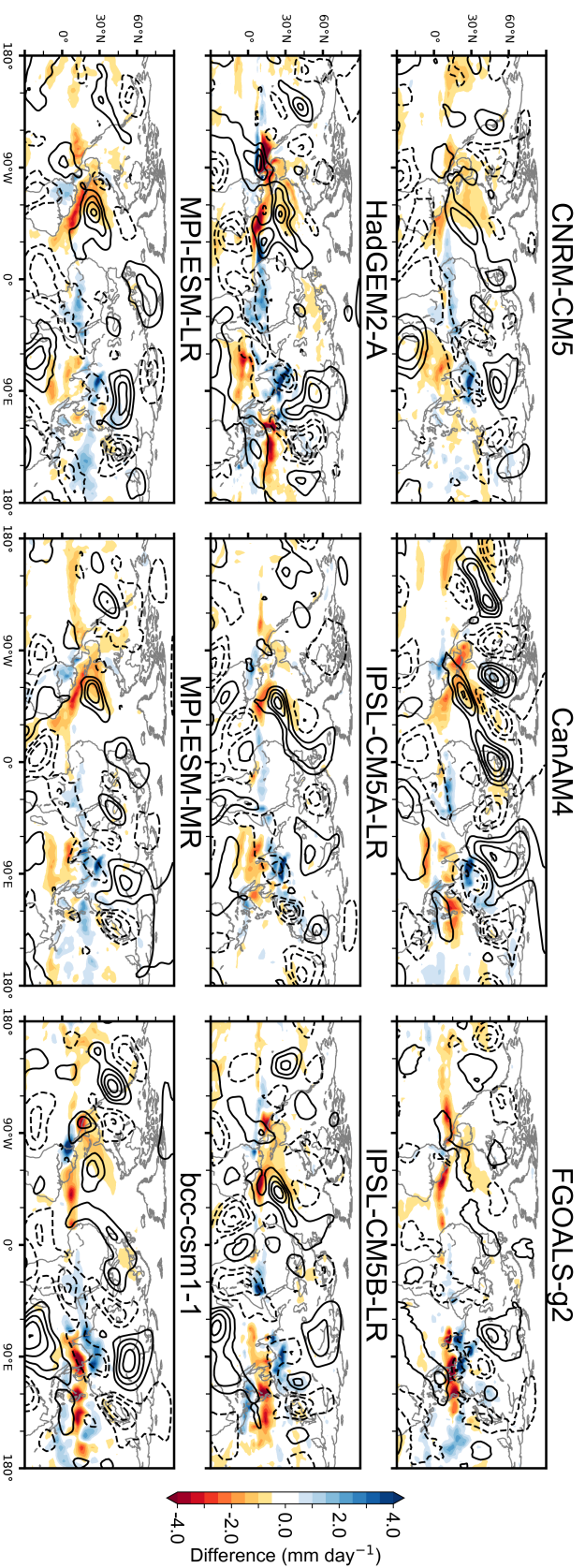


FIG. S3. Individual AMIP responses to a 4xCO₂ increase. Contours show the JJA 200 hPa meridional wind response (interval: 0.6 ms⁻¹ with the zero contour suppressed), colors show the JJA precipitation response.

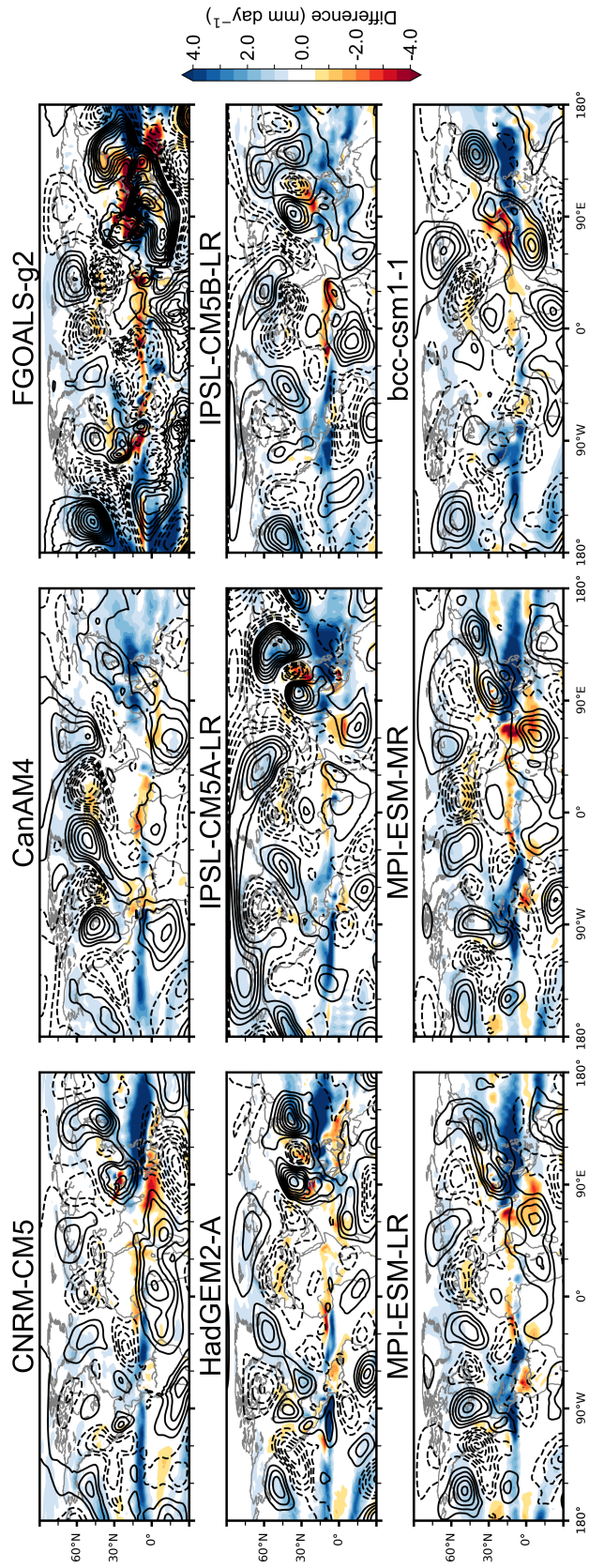


FIG. S4. Individual AMIP responses to a uniform 4K SST increase. Contours show the JJA 200 hPa meridional wind response (interval: 0.8 ms^{-1} with the zero contour suppressed), colors show the JJA precipitation response.