Supplement of

Last Glacial Maximum Climate and Atmospheric Circulation over the Australian Region from Climate Models

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Table S1: JJA LGM - PI anomalies for the strengths of the 850 hPa westerlies over 30ºS to 35ºS Southern Australia domain and precipitation averages over smaller south-west Australia domain (30ºS-35ºS, 115ºE-120ºE) simulated by each CMIP5 and CMIP6 models (excluding CMIP6 INM-CM4-8 model).

Model name	JJA strengths of westerlies (m/s)	JJA average precipitation (mm/day)
AWI-ESM-1-1-LR	-0.36	-0.78
CCSM4	0.86	0.19
CNRM-CM5	-0.34	-0.08
FGOALS-g2	-1.10	-1.30
GISS-E2-R	0.45	0.21
IPSL-CM5A-LR	0.37	0.30
MIROC-ES2L	-0.14	-0.55
MIROC-ESM	0.03	0.05
MPI-ESM-P	-0.62	0.24
MPI-ESM1-2-LR	0.79	0.39
MRI-CGCM3	-1.15	0.16

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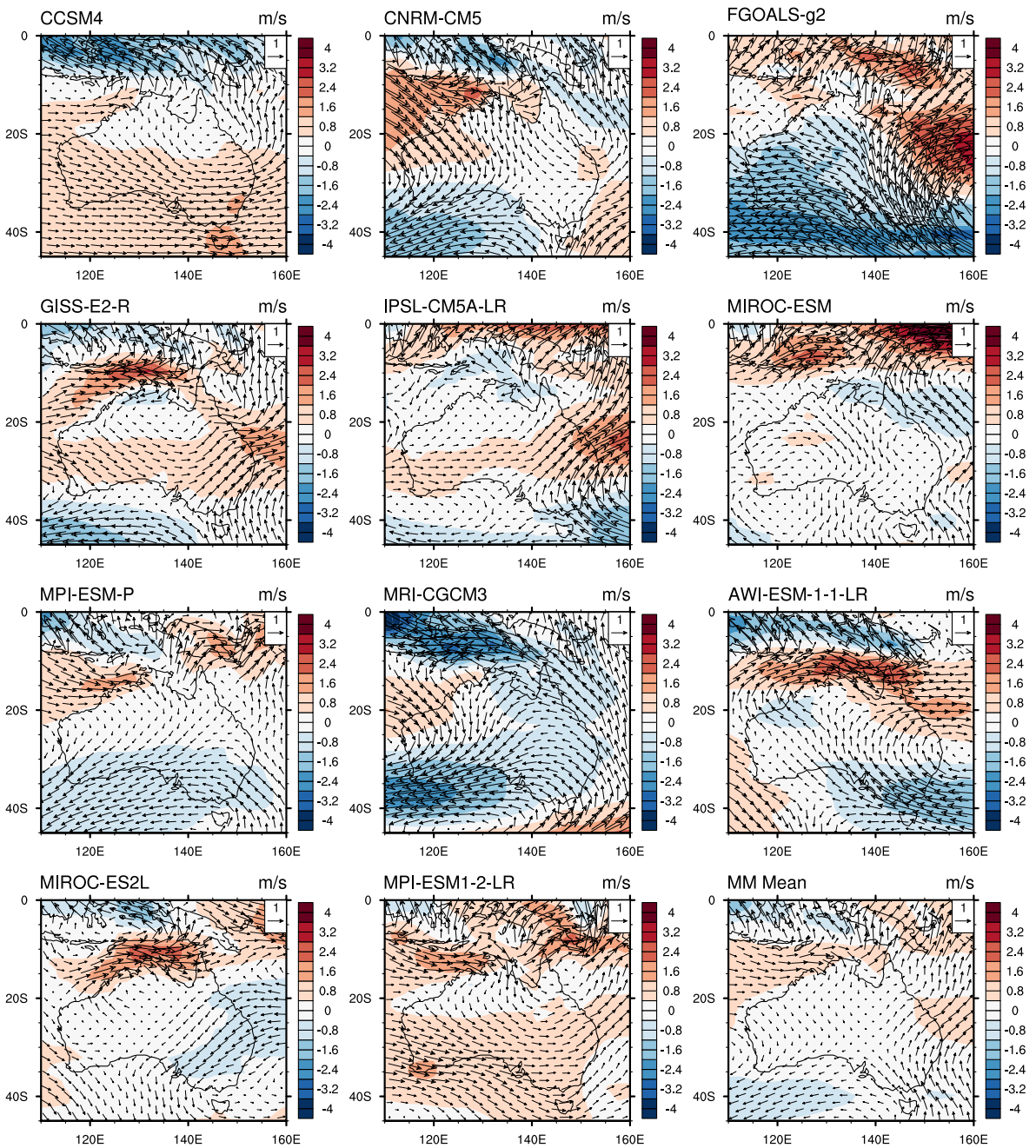
Figure S1: JJA LGM - PI 850 hPa wind and change in zonal (westerly) wind (m/s) simulated by individual CMIP5 and CMIP6 models (except INM model which provided only near-surface winds) and MM mean over the Australian domains.

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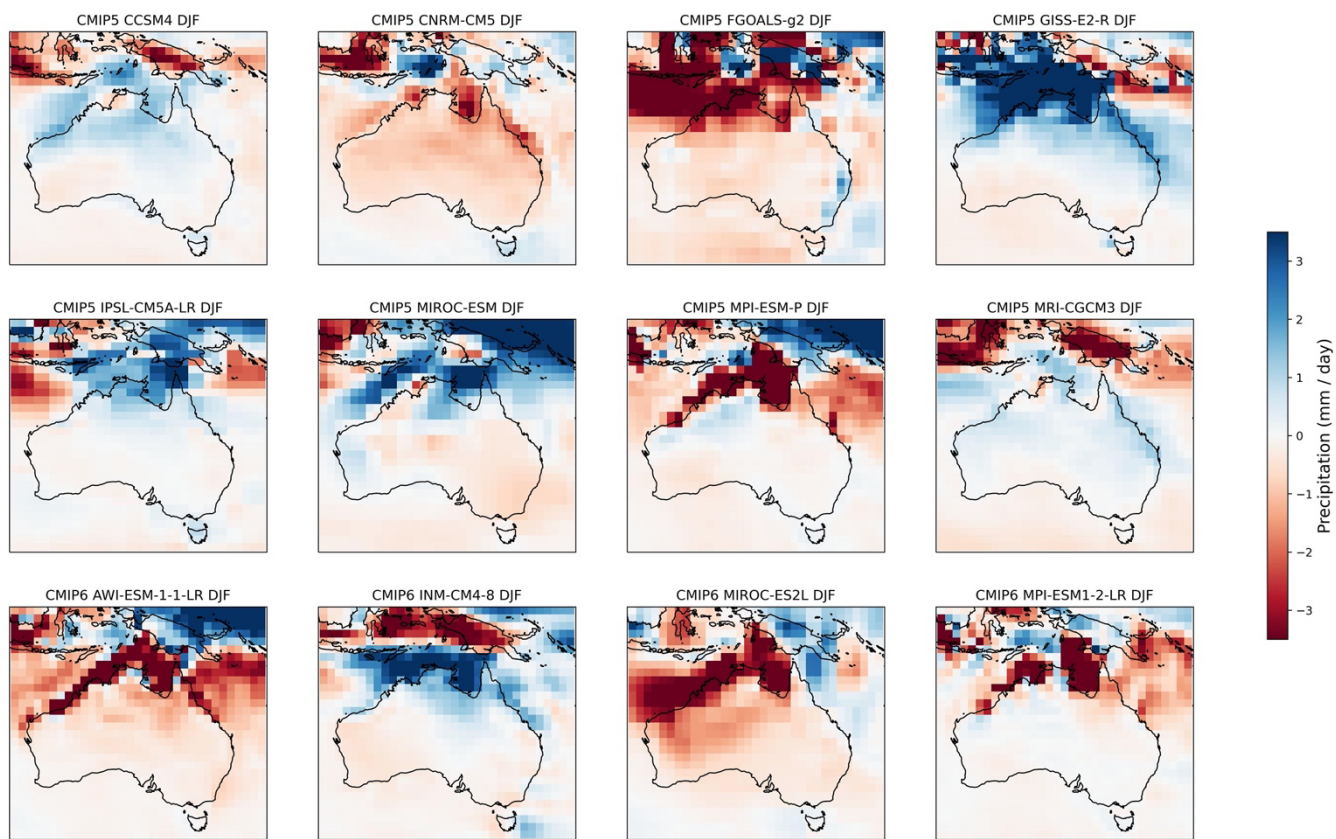
Figure S2: DJF LGM - PI mean precipitation anomaly (mm/day) over the Australian domain simulated by individual CMIP5 and CMIP6 models.

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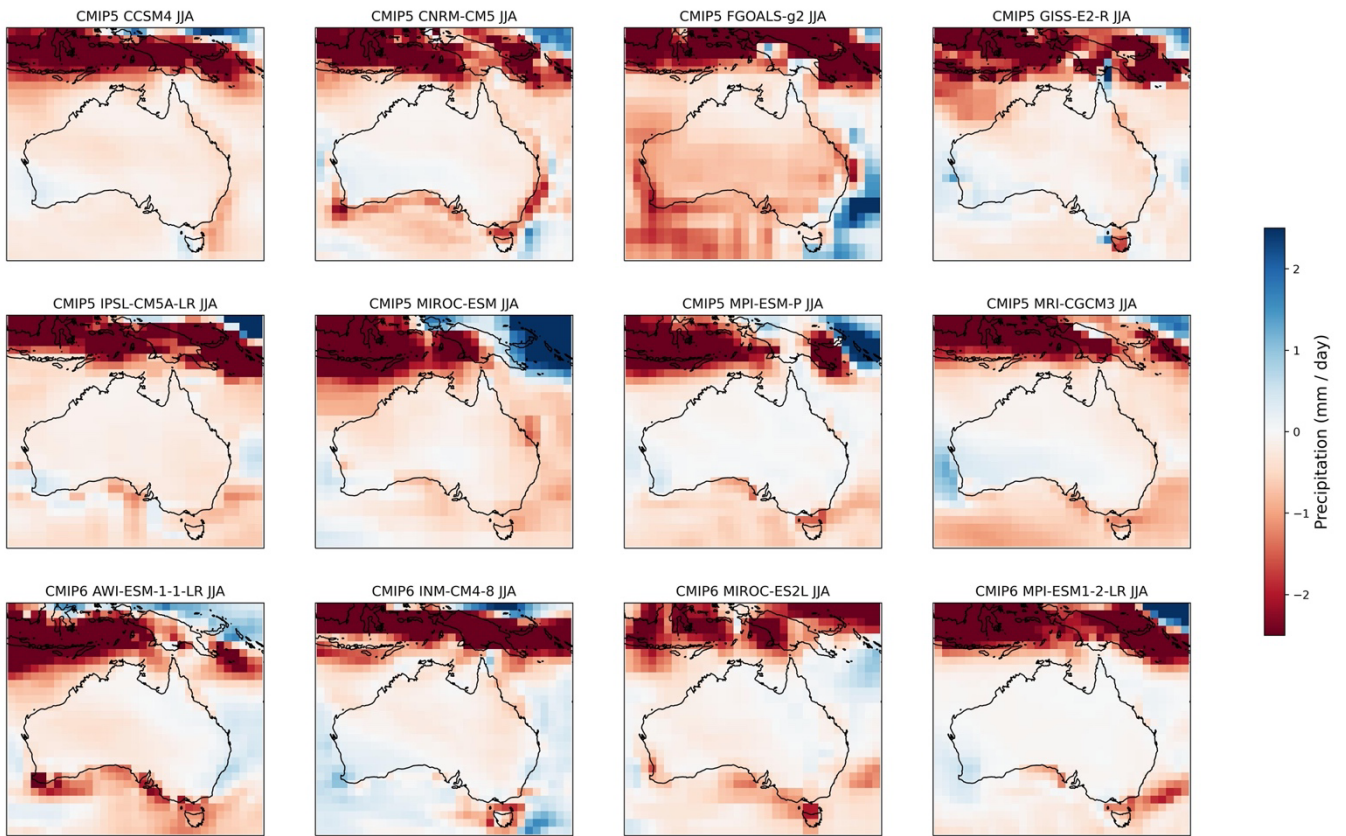
Figure S3: JJA LGM - PI mean precipitation anomaly (mm/day) over Australia simulated by individual CMIP5 and CMIP6 models.

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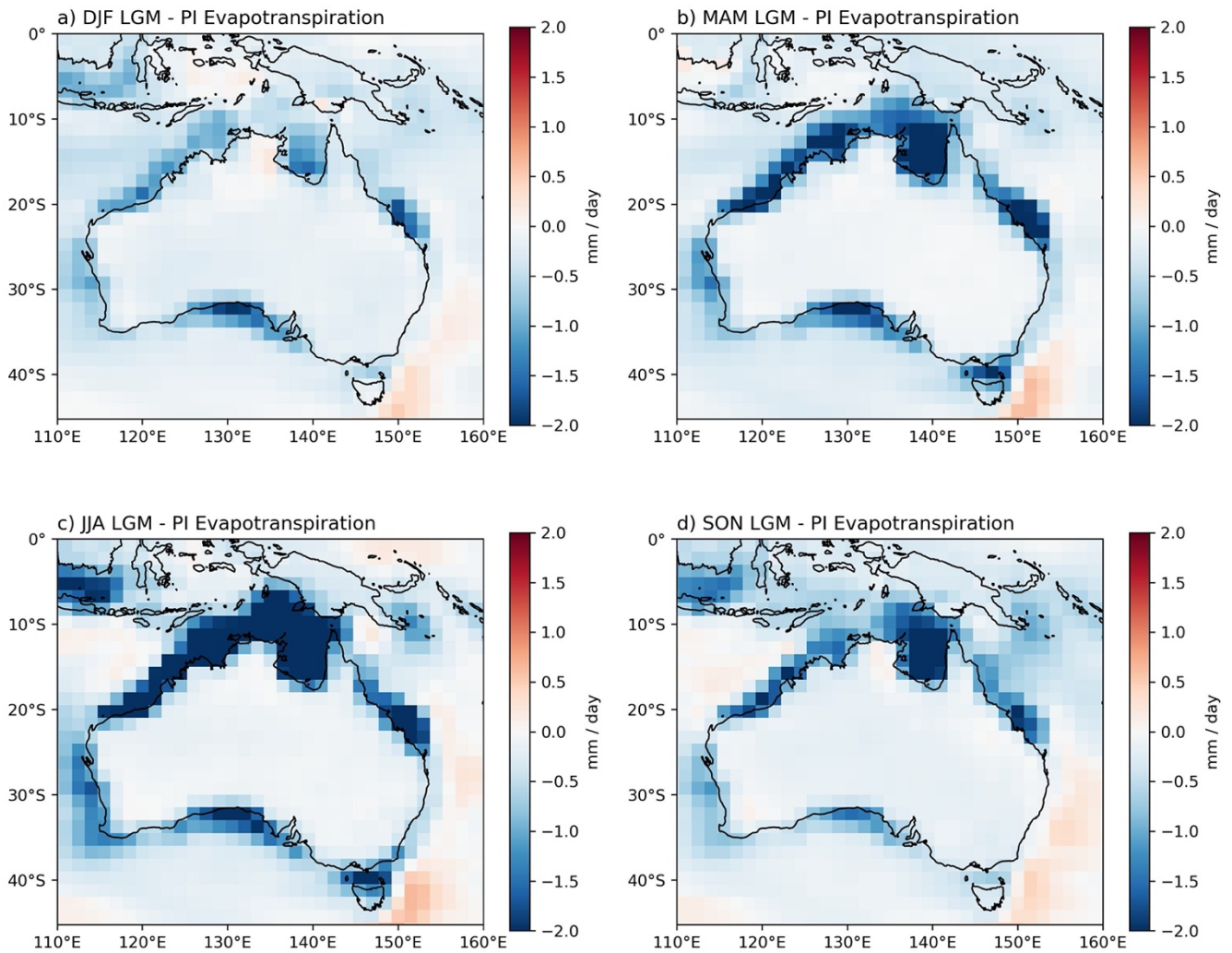
Figure S4: MMM seasonal anomalies for LGM - PI evapotranspiration (E, mm/day) simulated by the ensemble of CMIP5 and CMIP6 models for (a) DJF, (b) MAM, (c) JJA and (d) SON seasons.

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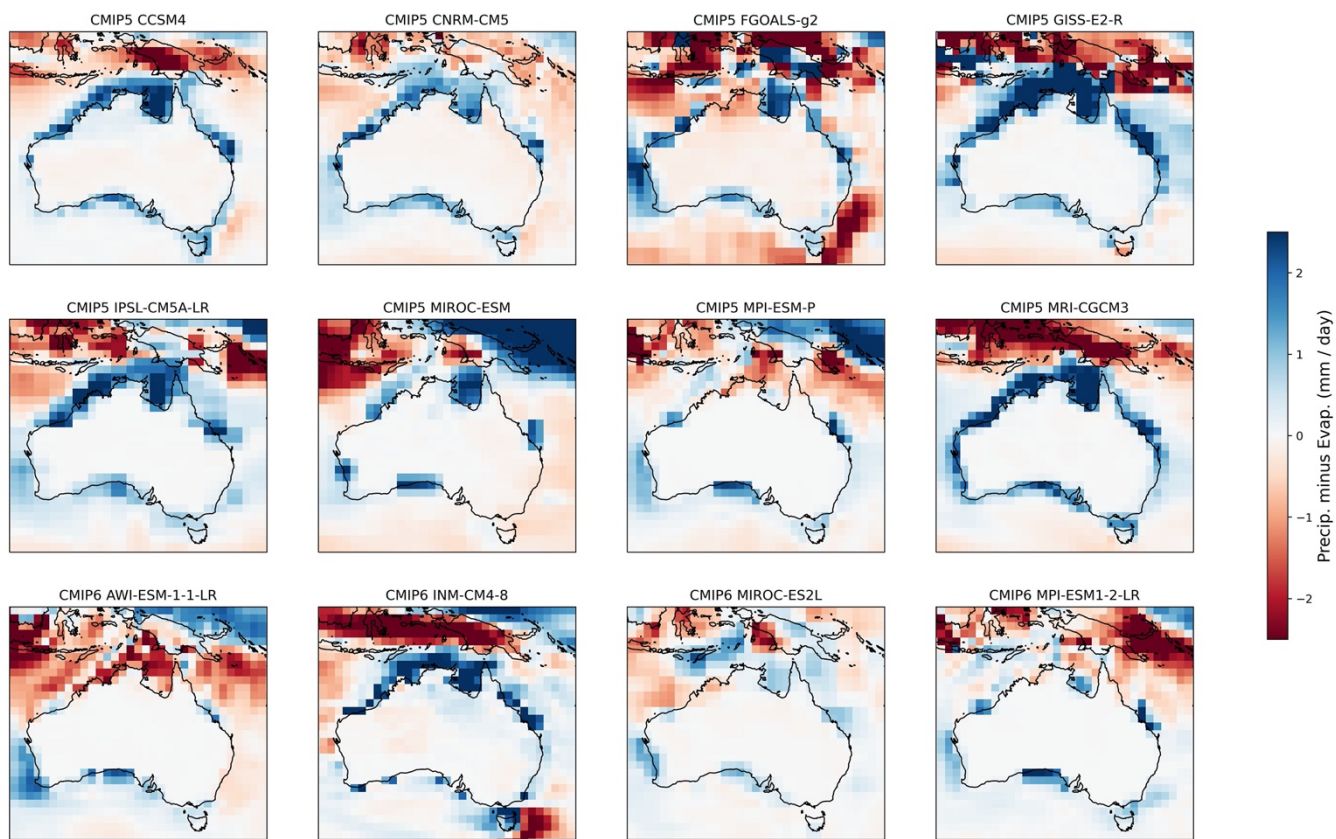
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Figure S5: Annual LGM - PI mean precipitation – evapotranspiration anomaly (P-E, mm/day) simulated by individual CMIP5 and CMIP6 models over the Australian domains.

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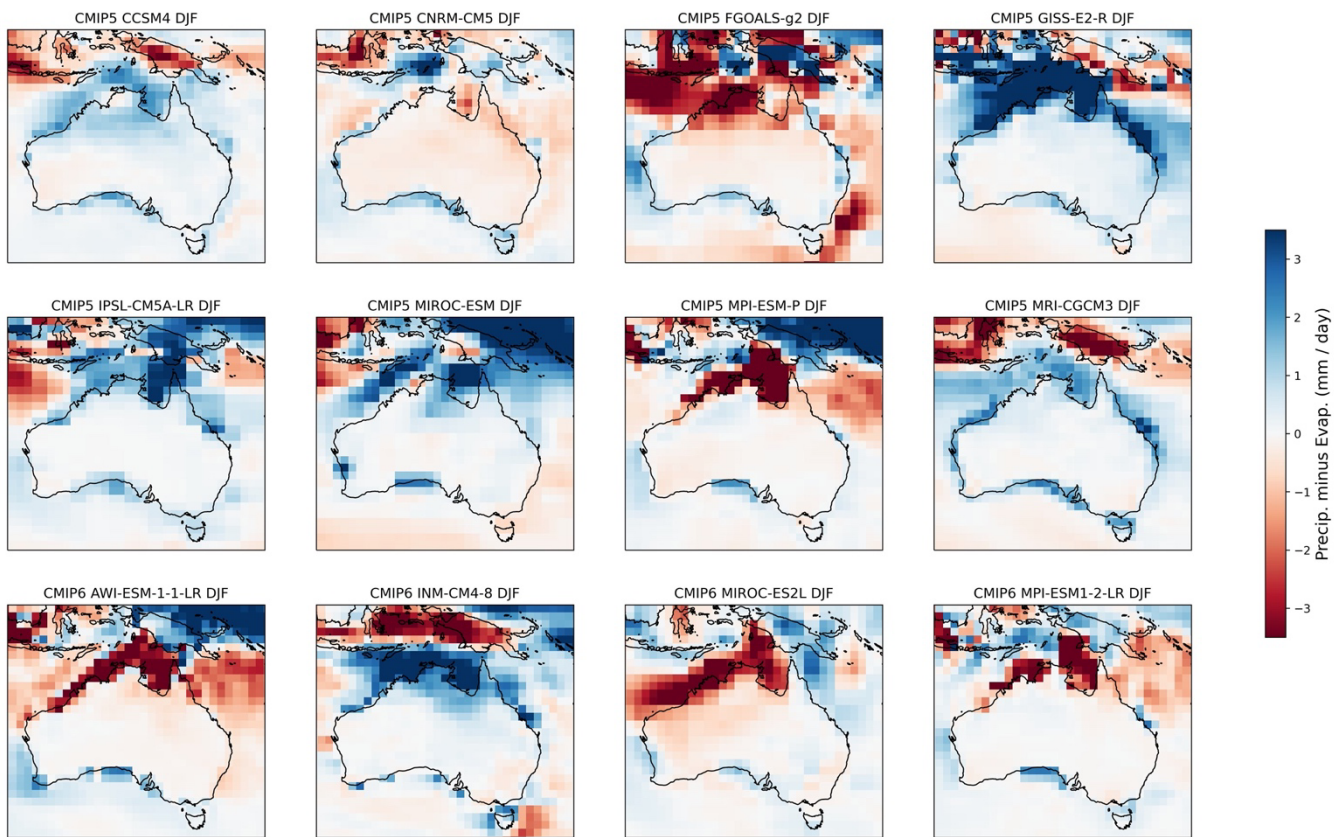
Figure S6: DJF LGM - PI mean precipitation - evapotranspiration anomaly (P-E, mm/day) over Australia simulated by individual CMIP5 and CMIP6 models.

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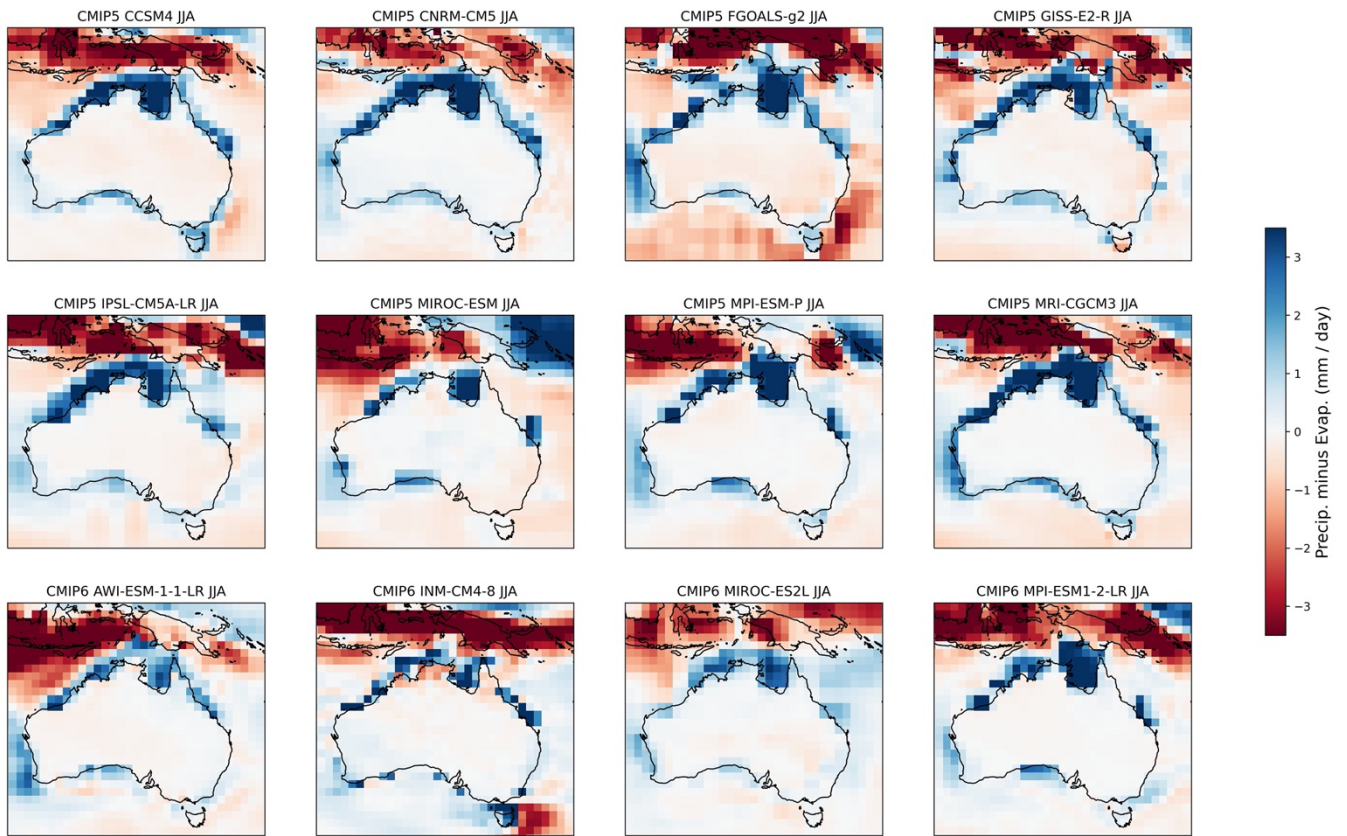
Figure S7: JJA LGM - PI mean precipitation - evapotranspiration anomaly (P-E, mm/day) over Australia simulated by individual CMIP5 and CMIP6 models.

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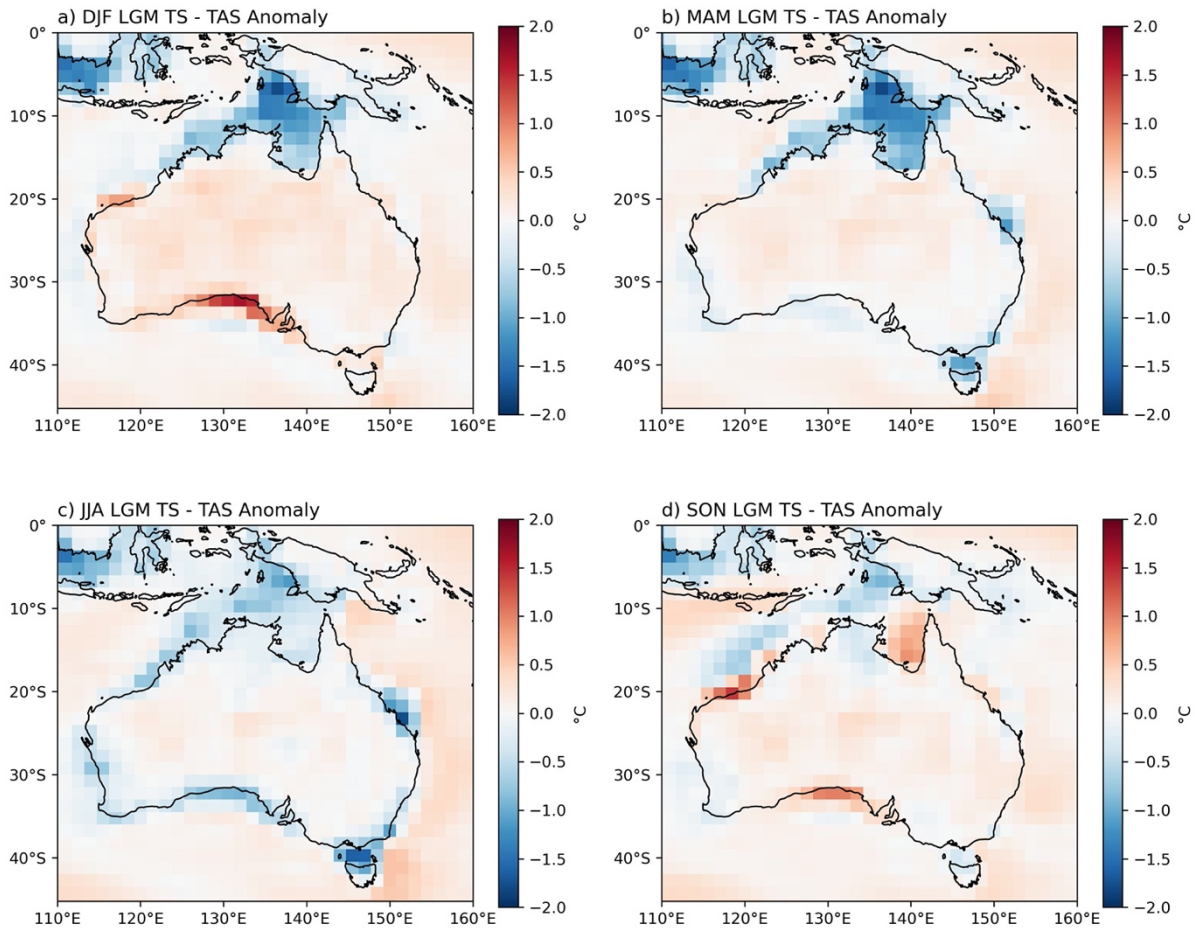
Figure S8: MMM seasonal anomalies for LGM - PI surface temperatures (TS) - surface air temperature (TAS) simulated by the ensemble of CMIP5 and CMIP6 models for (a) DJF, (b) MAM, (c) JJA and (d) SON seasons. Units are °C.

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