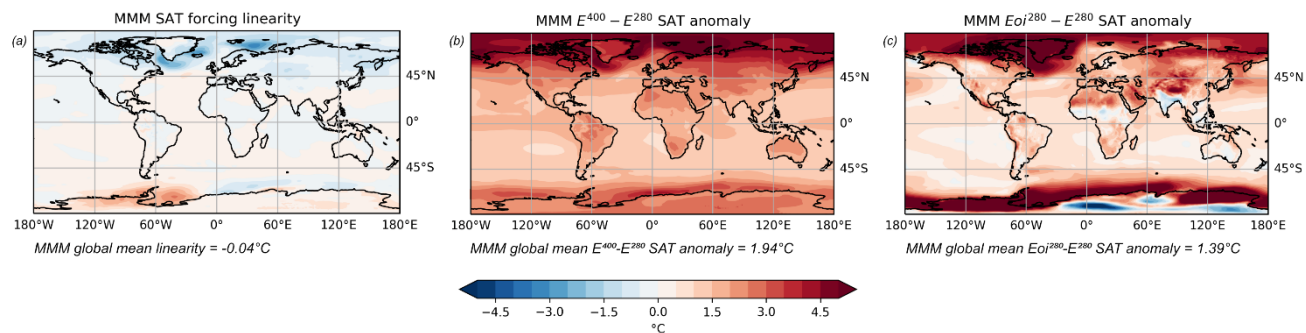


Supplementary of ‘On the climatic influence of CO₂ forcing in the Pliocene’

S1. Linearity check



5 **Figure S1: MMM (CCSM4-UoT, COSMOS, HadCM3 and MIROC4m) linearity check (a), compared to the equivalent MMM $E^{400} - E^{280}$ (b) and $Eoi^{280} - E^{280}$ (c) SAT anomalies. The regions of higher non-linearity in the Nordic Seas and off Greenland are strongly influenced by CCSM4-UoT, and the region of non-linearity in western Antarctica is strongly influenced by CCSM4-UoT and COSMOS.**

10 S2. FCO₂ on surface air temperature in individual models

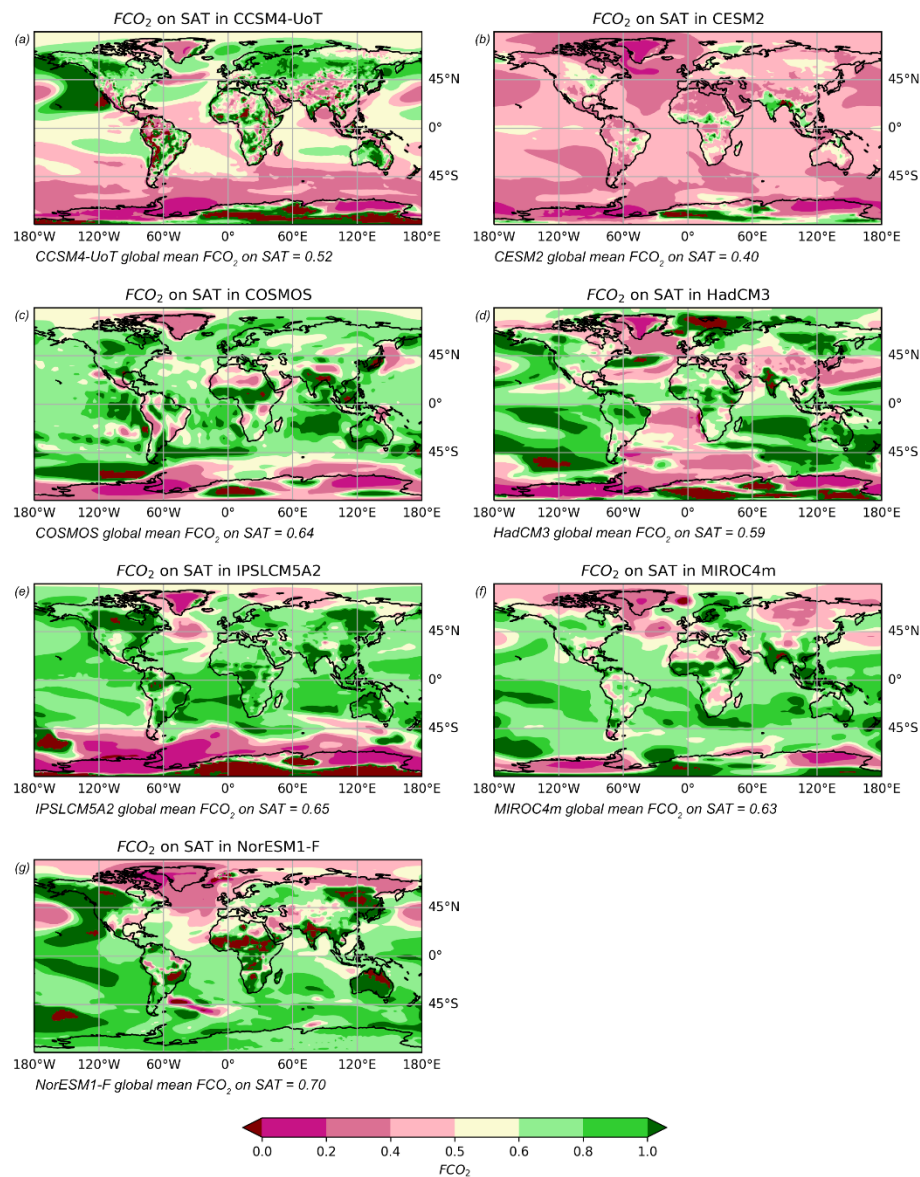
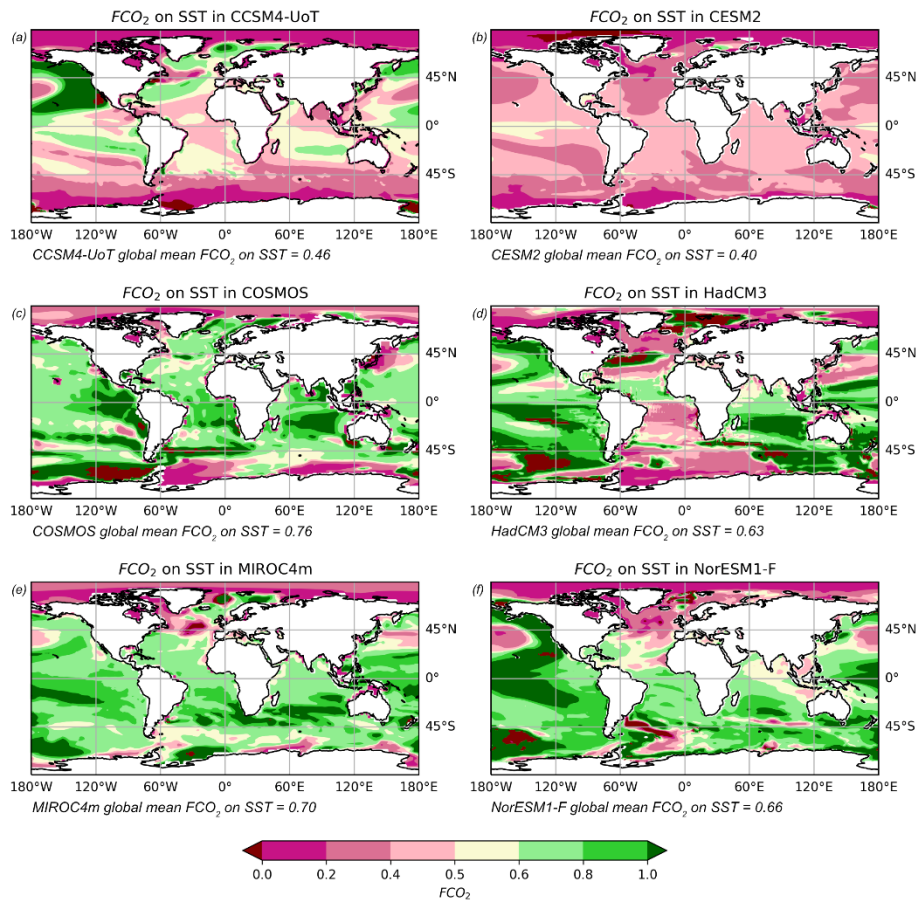


Figure S2: FCO₂ on surface air temperature (SAT) in individual models.

S3. FCO₂ on sea surface temperature in individual models



15 **Figure S3: FCO₂ on sea surface temperature (SST) in individual models. IPSLCM5A2 is excluded due to limited data availability.**

S4. FCO₂ on precipitation in individual models

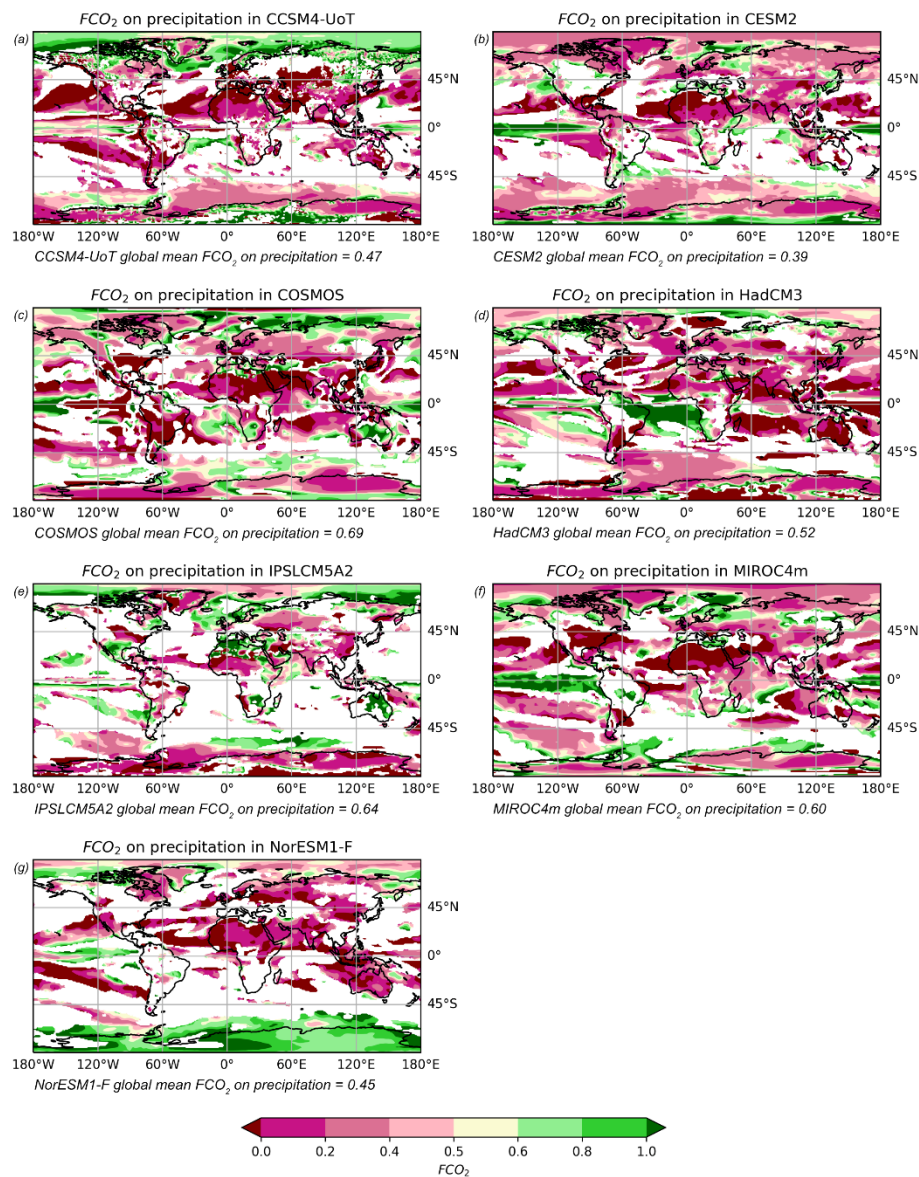


Figure S4: FCO₂ on precipitation in individual models. Regions of Eoi⁴⁰⁰-E²⁸⁰ precipitation change less than 10% are masked (white).