Understanding the robust strengthening of ENSO and more frequent extreme El Niño events under global warming

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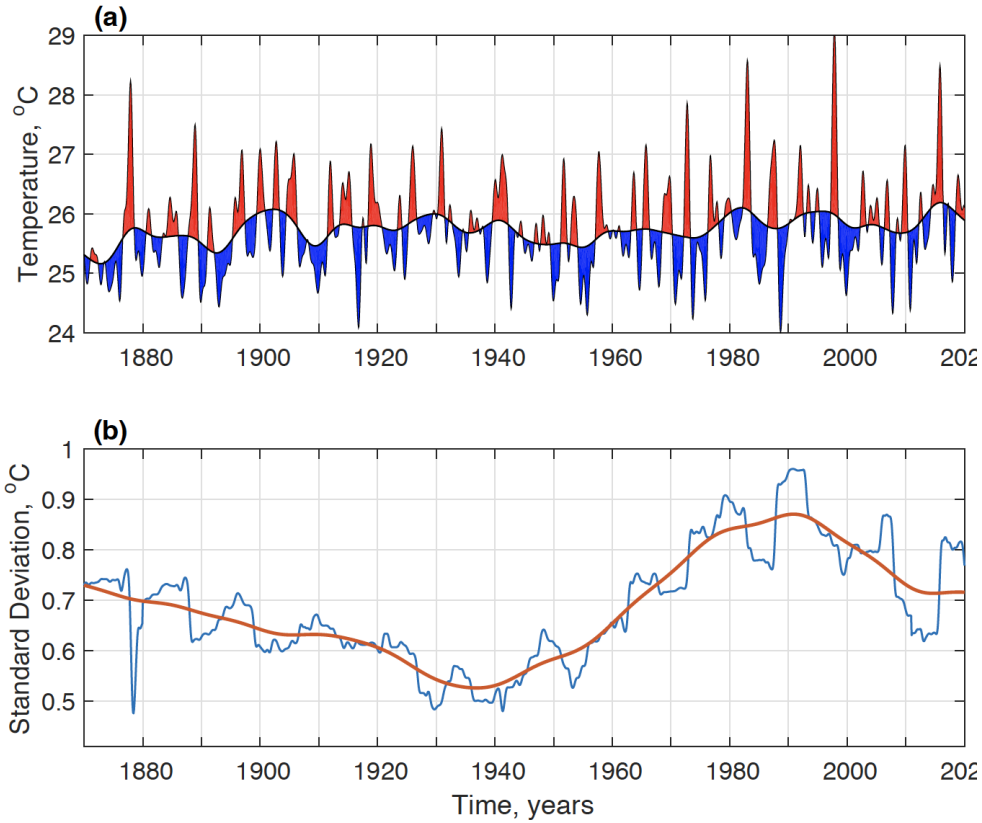
ENSO observations



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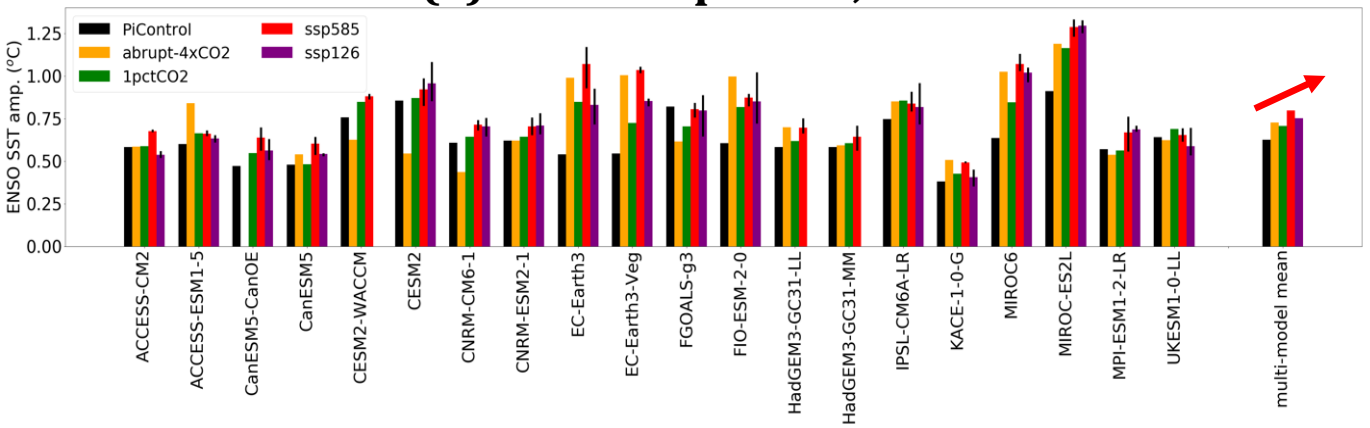
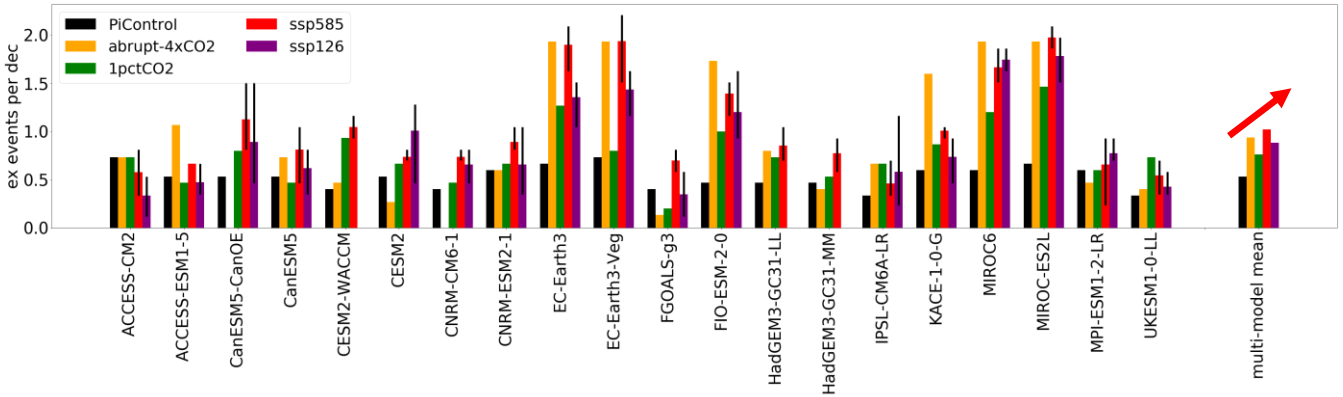
Fedorov et al. 2020

ENSO projections in CMIP6

(a) ENSO amplitude, ºC

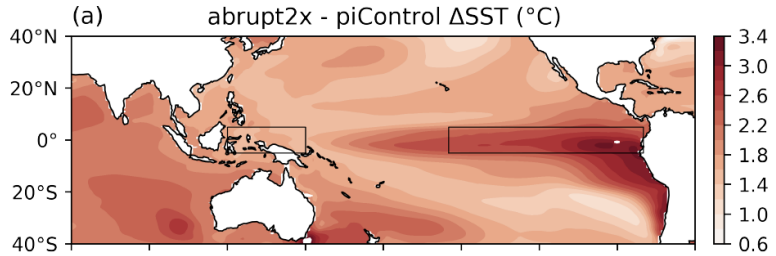


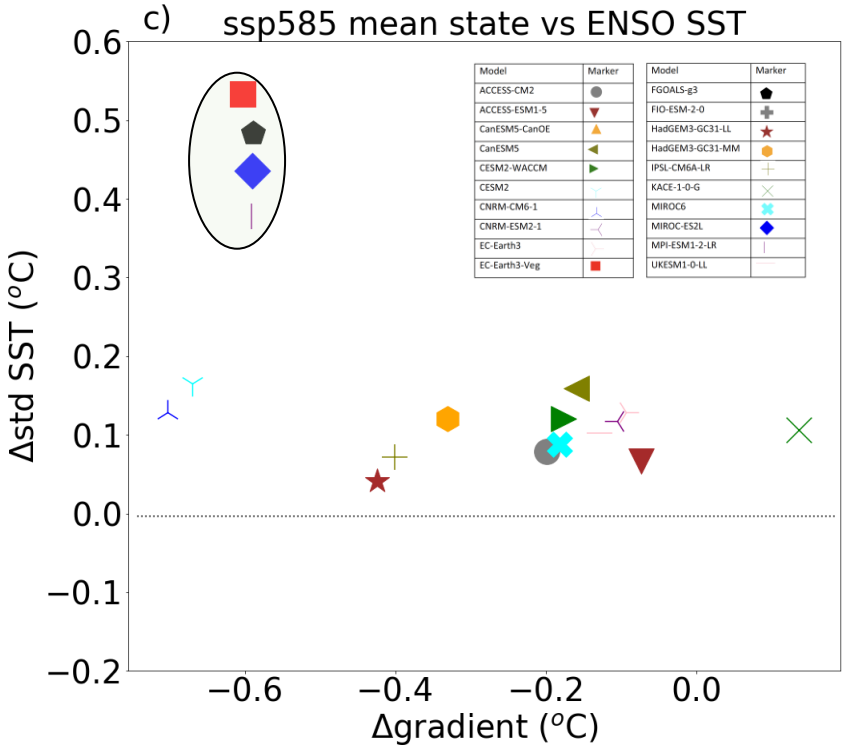
(b) Frequency of extreme El Nino events, per decade



Heede and Fedorov, Clim Dyn 61, 3047–3060, 2023

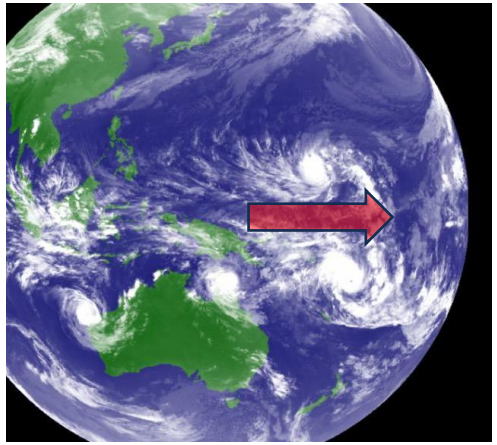
Changes in the tropical mean state: East Equator. Pacific warming pattern



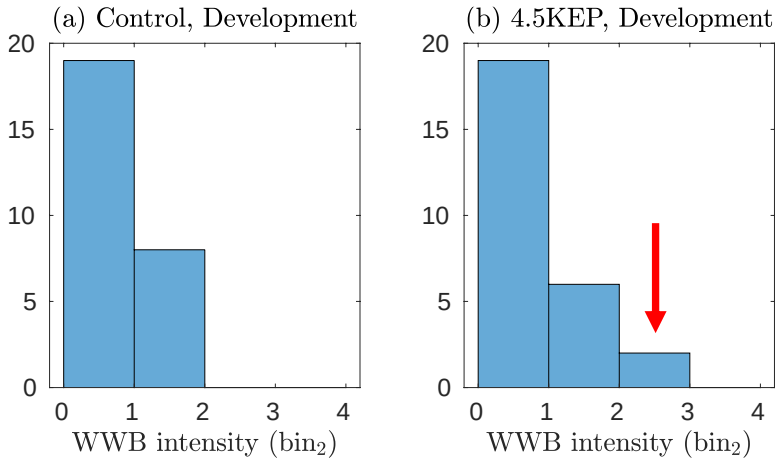


Heede and Fedorov 2023

Strengthening of westerly wind bursts

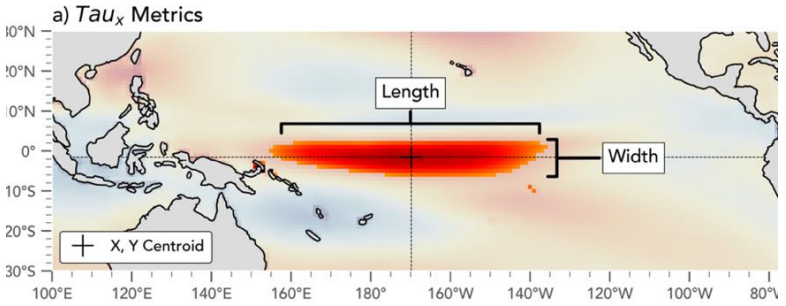


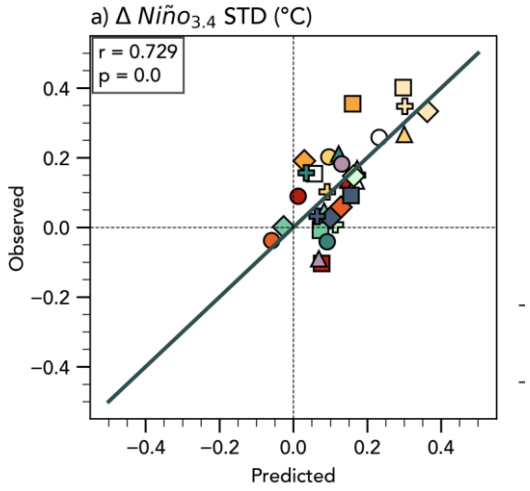
AGCM simulations

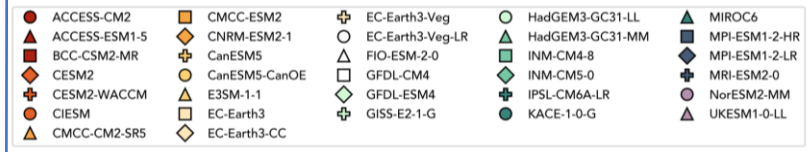


Liang and Fedorov 2024

Changes in the structure of ENSO wind-stress anomalies







Stuivenvolt-Allen et al. 2024