Supporting Information for “Strong El Niño events lead to robust multi-year ENSO predictability”

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Contents

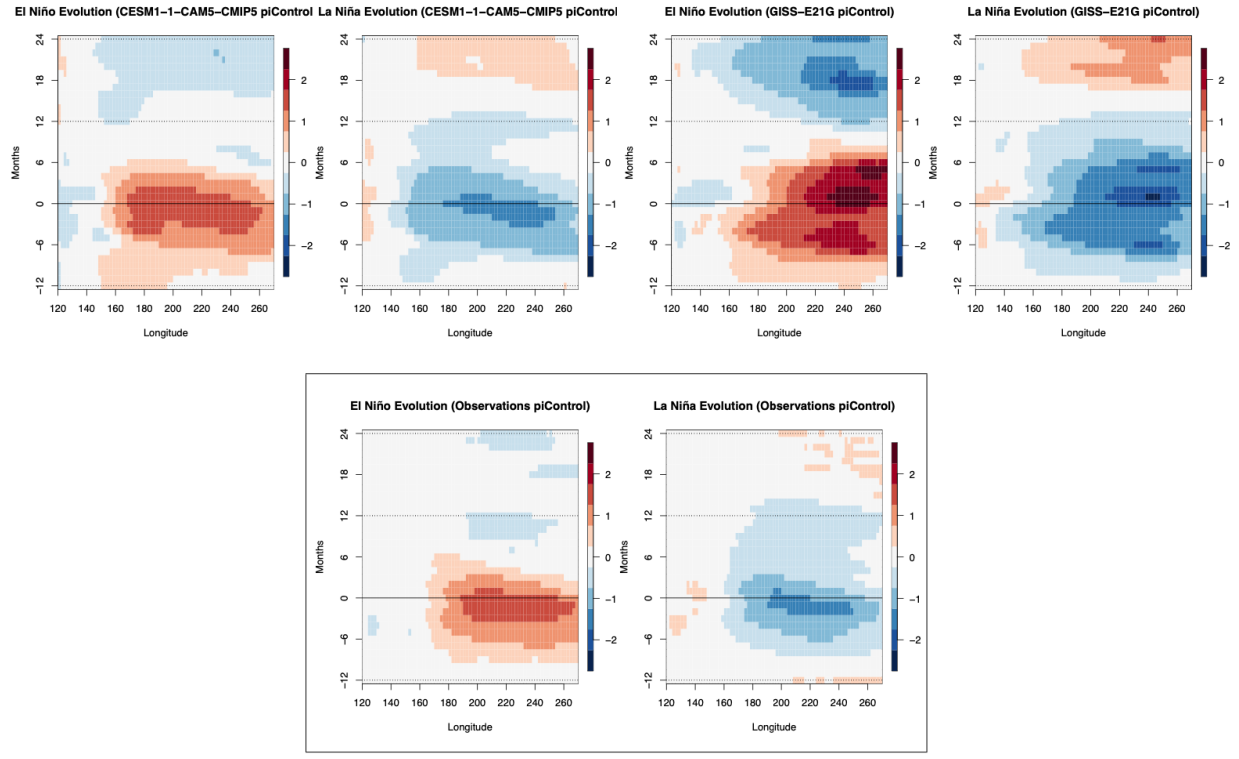

Figure S1: Composites of El Niño and La Niña event evolution in CESM1.1, GISS-E2.1G, and observations. Month 0 corresponds to DJF seasons when active El Niño and La Niña events are detected following the quantile definition used in the study.

Climate Model	# Years	2x La Niña	2x El Niño	Citation
CM4	500	0.056	0.068	Held et al. (2019)
ESM4	500	0.068	0.060	Dunne et al. (2020)
CanESM5	1000	0.064	0.068	Swart et al. (2019)
MIROC6	800	0.092	0.096	Tatebe et al. (2019)
CESM1-1-CAM5-CMIP5	1801	0.067	0.069	Kay et al. (2015)
CESM2	1200	0.054	0.043	Danabasoglu et al. (2020)
GISS-E21G	851	0.075	0.040	Kelley et al. (2020)
CESM1-NMME	700	0.080	0.053	Kirtman et al. (2014)
CCSM4-NMME	1100	0.051	0.048	Kirtman et al. (2014)
CM2.1-NMME	4000	0.068	0.062	Kirtman et al. (2014)
CM2.5-NMME	700	0.016	0.011	Kirtman et al. (2014)
Observations	109	0.092	0.046	Laloyaux et al. (2018)

Table S1: The rate/year of double La Niña and El Niño events in the piControl runs and Observations (1901-2009) where La Niña and El Niño events are defined as the lower and upper quartile of DJF Nino3.4 respectively. A double event is defined by consecutive DJF seasons with active events of the same sign.

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