



Dependence of the South tropical Pacific response to varying ENSO characteristics

Julie Leloup (1,2), Matthieu Lengaigne (1), Pascale Braconnot (2), and Éric Guilyardi (1)

(1) LOCEAN/IPSL, UPMC-CNRS-IRD-MNHN, Paris, France (jllod@locean-ipsl.upmc.fr), (2) LSCE/IPSL, CEA-CNRS-UVSQ, Gif-sur-Yvette, France

ENSO teleconnections in the South Pacific are likely to depend on the characteristics of ENSO events (i.e. intensity, seasonality, spatial patterns, etc). There is hence a need to further investigate those teleconnections in order to better qualify and understand relationship between the variability of proxies in this region and ENSO.

In this study, we first analyze both the sea surface temperature and sea surface salinity as observed over the recent period to qualify and quantify the specific contributions of ENSO to the South Pacific climate variability. Those analyses are then extended to long-term climate simulations from the CMIP5 database to assess the ability of coupled models to simulate these teleconnections and further understand the mechanisms driving the surface response to ENSO events in the South Pacific.