Seasonal to interannual variability of observed temperatures in the equatorial Pacific

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Global surface temperature records (GSTRs), as GISS, HadCRUT and NCDC, use sparse and discontinuous instrumental temperature data spanning from the half of the 19th century to the present to reconstruct monthly temperature on regular grids. The spatial distributions and temporal trends they provide are pivotal in the discussion on tropical as well as global climate evolution. This contribution assesses seasonal to interannual variability from near-surface air temperature and sea-surface air temperature measured in situ by the moored buoys of the TAO array in the Equatorial Pacific and put it in the context of seasonal to interannual variability expressed in the same region by gridded temperature datasets.