EGUsphere, community comment CC1
https://doi.org/10.5194/egusphere-2022-876-CC1, 2022
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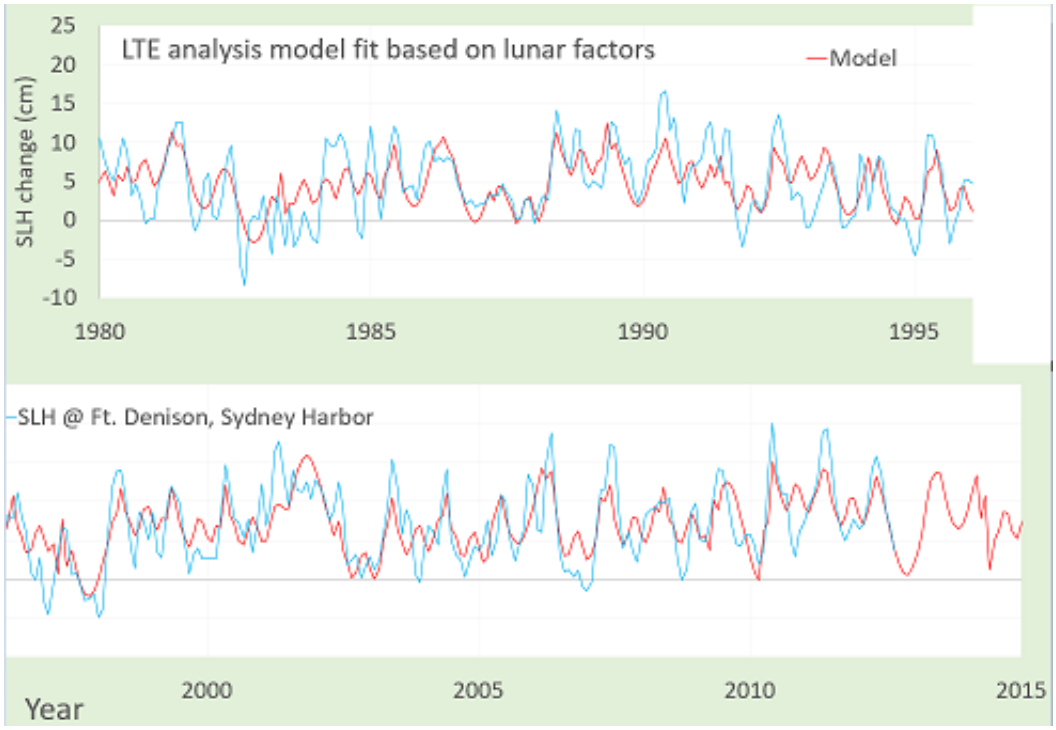
Comment on egusphere-2022-876

Paul PUKITE

Community comment on "Regionalizing the sea-level budget with machine learning techniques" by Carolina M. L. Camargo et al., EGUsphere, https://doi.org/10.5194/egusphere-2022-876-CC1, 2022

"indicating how the ENSO signal is propagated through the Pacific, possibly through coastally trapped waves (Hughes et al., 2019) in the coastal domains"

The ENSO signal shows up throughhout the tropical Pacific sea level simply via the inverse barometer effect. ENSO tracks closely the atmospheric pressure dipole as reealed by the differences between pressure at Darwin and Tahiti (the Southern Oscillation Index). The change is 1 cm for a 1 mBar change in pressure, so that with the SOI extremes showing 14 mBar variation at the Darwin location, this accounts for a 14 cm change in sea-level, roughly matching that shown in the chart below



(sorry for the mangled chart but this comment interface is very primitive)