Atmos. Chem. Phys. Discuss., community comment CC1
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Comment on acp-2021-190 -- tidal forces

Paul PUKITE

Community comment on "The semiannual oscillation (SAO) in the tropical middle atmosphere and its gravity wave driving in reanalyses and satellite observations" by Manfred Ern et al., Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2021-190-CC1, 2021

The gravity waves driving SAO and QBO are rooted in the interactions of the semi-annual tidal forcing and the lunar nodal (27.212 day) tidal forcing . The interference of the two generate the ~2.37 year QBO period, via 1/ ((365.25 / 27.2122) - integer(365.25 / 27.2122)). Can't seem to upload any graphics in this comment, but the discussion is briefly described here https://esd.copernicus.org/preprints/esd-2020-74/