



Tropical internal atmospheric variability and ENSO

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By comparing the multi-decadal simulations of the global interactive ensemble model and the regional interactive ensemble model we examined the role of *tropical* internal atmospheric dynamics on the ENSO within the context of coupled general circulation model. Tropical internal atmospheric variability contributes to more strengthen and broaden interannual-to-decadal timescales of ENSO in terms of frequency and amplitude. Our analysis suggests that the noise due to internal atmospheric dynamics has different roles on the ENSO variability on interannual and decadal timescales. For example, the tropical noise is ineffective to influence the ENSO amplitude on interannual timescales and vice versa on decadal timescales. We also discussed how the noise could change the ENSO regularity.