



Interbasin effects on subdecadal climate modulation relevant to global warming hiatus

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Subdecadal modulation in the upper ocean heat content relevant to global warming hiatus is observed over the tropical Pacific in 2000s, in a different manner from other decades. Dynamical ocean response to the strong subdecadal modulation in the Pacific trade wind works to keep warm and cold tendencies in the western and eastern Pacific Oceans, respectively, and consequently it can contribute to slow down of global warming. Our decadal hindcasts with initialization insufficiently reproduce the subdecadal modulation even a few years in advance, particularly due to low skill in hindcasting the strong trade wind observed in mid-2000s. Sensitivity experiments of a coupled climate model suggest that the strong trade wind can be largely contributed by high sea surface temperature over the tropical Atlantic Ocean in relation to the positive peak of the Atlantic Multidecadal Oscillation.