

The impact of spiciness on El Nino

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We investigate the modulation of ENSO location and amplitude by spiciness anomalies in the tropical thermocline. First, Argo observations constrain the size of observed spiciness anomalies. Realistic perturbations are then used to investigate the impact on an intermediate El Nino model. This shows that spiciness anomalies can increase the thermocline feedback and thus enhance the Bjerknes feedback and ENSO amplitudes. Experiments with coupled general circulation model are conducted to investigate the impact on the character of El Nino.

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