



Generation mechanism of the ENSO rainfall center in the tropical Pacific: Multiple-timescale processes

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The tropical Pacific rainfall center associated with the ENSO cycle exhibits an interannual east-west seesaw following the corresponding sea surface temperatures (SSTs). It has been perceived in the past several decades by the climate research community that this east-west seesaw of the ENSO rainfall center is a direct response of the tropical atmospheric to the SST anomalies. It is analyzed by this study that this ENSO rainfall center is actually generated by a modulation of the equatorward cold air intrusion of midlatitude anticyclones by the ENSO east-west seesaw of the tropical Pacific SSTs through the multiple-timescale processes in the tropics-midlatitude interaction.