



How does ENSO modulate the weather in wintertime East Asia?

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Previous studies mainly focused on the El Niño-South Oscillation (ENSO) influence on the seasonal-mean conditions over East Asia. This study, instead, proposes an ENSO pathway that influences the weather events over East Asia, in which the eastern Pacific teleconnection pattern (EP) plays an important role. It is shown that the positive EPs strengthen the East Asian winter monsoon (EAWM) circulation and cause colder than normal weather events in East Asia, while the negative EPs weaken the EAWM circulation and warmer than normal weather events in East Asia are expected. This study also shows that ENSO can significantly modulate the frequency of occurrence of EPs. In El Niño winters, more negative and less positive EPs tend to occur; consistently, more warmer and less cooler weather events are expected in East Asia. While for La Niña winters, the reverse is true.