



How Significant are Decadal Variations in ENSO Precipitation Teleconnections?

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ENSO precipitation teleconnections to many parts of the world vary in strength over the last century. It is an active area of research to investigate if such changes can be related to long-term climate variability or climate change. However, statistical fluctuations also will give rise to variations in the apparent strength of the teleconnections. We compute for each season and each station in a global set the probability that the observed decadal variations over the historical record are due to statistical fluctuations. There are no clear patterns in the maps of the statistical significance of decadal fluctuations. The number of stations with 90% and 95%CL "significant" variability is very close to the number expected from chance alone. This implies that on average changes in the background climate have a relatively small impact on the strength of ENSO teleconnections.