



## **Detection of short- and long-range teleconnections in SST patterns on different time scales**

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Sea surface temperature (SST) anomaly patterns can - as surface climate forcing - affect the weather at large distances. This is why following an El Niño event major global climate anomalies occur. This paper characterizes the links between the cells of a global SST grid data set at different temporal and spatial scales with the help of climate networks. These networks are constructed using wavelet multi-scale correlation. This way we identify and visualise the SST patterns that develop very similarly over time and distinguish them from those that have long-range teleconnections to other ocean regions. Our findings re-confirm accepted knowledge about known highly linked SST patterns like El Niño Southern Oscillation and the Pacific Decadal Oscillation, but also suggest new insights into the characteristics and origins of long-range teleconnections.