Topology and predictability of El Nino and La Nina networks

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We construct the networks of the surface temperature field for El Nino and for La Nina years and investigate their structure. We find that the El Nino network possesses significantly fewer links and lower clustering coefficient and characteristic path length than the La Nina network, which indicates that the former network is less communicative and less stable than the latter. We conjecture that because of this, predictability of temperature should decrease during El Nino years. Here we verify that indeed during El Nino years predictability is lower compared to La Nina years.