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New Climate Network Communities from Anomalies and Seasonal Cycle Time-Series

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In this work we propose a new way of inferring communities from the properties of the surface air temperature (SAT) time-series seasonal cycle, and through the construction of a new kind of climate network using the respective anomalies. With these new approaches we are able to retrive interesting properties of the climate system, such as the thermal inertia spacial distribution, or the clusters of areas that share common statistical properties of their long-term evolution. In particular, from the communities computed via the SAT anomalies, a clear distintion emerges between the turbulent, chaotic regions of the extratropics and the slower and more predictible tropical belt.