



## **Validity of Interpolating and Extrapolating Temperature Anomalies across the Arctic**

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Global and regional mean surface temperature anomaly datasets, which provide us with information on global temperature change, are produced from temperature records using various statistical techniques and methodologies. Some datasets use only available data and exclude areas where no temperature data is available; others interpolate and extrapolate temperatures using assumptions about the spatial correlation of temperature anomalies and techniques such as linear interpolation and kriging. But, when producing Surface Air Temperature (SAT) anomalies in the Arctic what assumptions are valid and which techniques are most representative? In order to provide some insight into these issues I will present some of my work on investigating what assumptions about the correlation structure of SAT anomalies in the Arctic are valid as well as further work on investigating which techniques are likely to be most representative of Arctic SAT anomalies, both using ERA-Interim reanalysis data as a testbed.