Constructing Large Nonstationary Spatio-Temporal Covariance Models via Compositional Warpings

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- We construct nonstationary spatio-temporal Gaussian process models using spatial and temporal warping functions, which can capture the nonstationarity in the covariance in both space and time.

- The proposed nonstationary spatio-temporal model can accurately characterise the nonstationary behaviour of ice sheet processes, and can provide better probabilistic predictions than stationary models.