# A functional-data perspective in spatial data analysis

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**Abstract**: More and more spatiotemporal data nowadays can be viewed as functional data. The first part of the talk focuses on the Argo data, which is a modern oceanography dataset that provides unprecedented global coverage of temperature and salinity measurements in the upper 2,000 meters of depth of the ocean. I will discuss a functional kriging approach to predict temperature and salinity as a smooth function of depth, as well as a co-kriging approach of predicting oxygen concentration based on temperature and salinity data. If time permits, I will also give a brief overview on some results regarding the estimation of the spectral density function for functional data.

**Vitae**: Tailen Hsing is Michael B. Woodroofe Collegiate Professor of Statistics, Department of Statistics, University of Michigan. His research interests include extreme value theory, limit theory under dependence, functional data and spatial data. Webpage: `https://dept.stat.lsa.umich.edu/~thsing/`

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