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MASTER'S THESIS PRESENTATION

Spatial-Temporal Modeling of Weather Data

WHEN

November, 8th, 2021
2:00 PM, CST

WHERE

Via ZOOM

ZOOM information will be provided in the email announcement for this seminar.



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This paper aims to present spatial-temporal modeling, a topic that I have had the pleasure of studying during the past months and that introduced me to the kriging methods in statistics. In the first part, I give an overview of spatial processes, stationarity and isotropy, and how to describe the dependence structure through a covariance function or a variogram. These concepts are then extended to space-time processes, including an outline of some classes of covariance functions. Next, simple, ordinary and universal kriging are discussed, and in the last section I present a real-world application of kriging when applied to the 2020 temperature data in Illinois.

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