Dependent Random Weighting

Katherine Goode and Shan Yu

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Introduction

We were interested in learning about resampling methods for irregularly spaced time series data. This led us to read the paper

> *"The Dependent Random Weighting" (2015) by Srijan Sengupta, Xiaofeng Shao, and Yingchuan Wang.*

The paper:

- Introduces a method that assigns random weights to the irregular time series data
- Incorporates a dependence structure that is similar to the data when assigning weights
- Uses the weights when drawing bootstrap samples from the data

Irregular Time Series Data

Irregular time series data can occur in two ways.

1. Missing Values: Time series occurs at equally space intervals but not all data points are observed

2. Unequal Intervals: Times when the data are observed are generated from a 1-D point process

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Simulation

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