

Insalate di Matematica

presents

Listening to the Ocean through time series

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Abstract

The Earth is covered with large oceans, making up close to two thirds of its surface. Marine ecosystems are extremely reliant on sounds, for navigation, communication and predation. Underwater soundscapes are increasingly affected by human activities (like shipping) and climate change (warming oceans). In this talk, I will dive into the world of time series, in particular those collected worldwide by the international Comprehensive Test Ban Treaty Organization. The starting point of our journey will be ergodic stationary processes through which we will give a rigorous definition of time series and overview some analysis methods. We will apply all the notions to real world data to see how we can start analysing time series data.



Keywords:

Time Series · Underwater Acustics · Climate Change

"Obvious" is the most dangerous word in mathematics. - Eric Temple Bell