Time Series Analysis in R:
A Case Study based on the Box-Jenkins Methodology

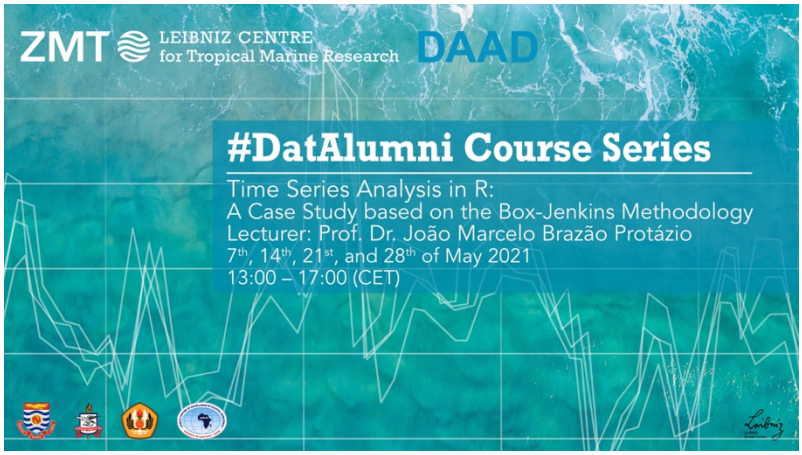
7th, 14th, 21st, and 28th of May 2021

13:00 – 17:00 (CET)

ZMT Academy Zoom Room

Leibniz Centre for Tropical Marine Research (ZMT) GmbH

Fahrenheitstraße 6, 28359 Bremen, Germany



Instructor: Prof. Dr. João Marcelo Brazão Protázio (ZMT alumni and Vice-Coordinator of the Postgraduate Program in Mathematics and Statistics at the Laboratory of Mathematical-Statistical Modeling / ICEN – UFPA – Brazil)

Course description: Now, what is Time Series Analysis? Time series analysis includes methods for analysing time series data to extract meaningful statistics and other features of the data. The main idea of the course is consequently to enable participants to fit a more appropriate model to temporally autocorrelated data and enabling them to make predictions about the phenomenon in question. More precisely, the concept of SARIMA models (Seasonal Autoregressive Integrated Moving Average) and the Box-Jenkins methodology with its applications in R will be introduced.

Target group: The course is for all ZMT Alumni and Doctoral Candidates at ZMT. Guest researchers and interested Postdocs or Master Students can participate as well.

Preparation: Familiarize yourself with RStudio Cloud

Reading: Cryer, J.D., Kung-Sik Chan, K.-S. (2008) Time Series Analysis: with applications in R, Springer, New York