

PIPGES · WEBINARS

MAY · 13
2022

02:00 PM

(GMT-03:00) Brasilia Standard Time - Sao Paulo

The video call link will be
available at:

<https://tiny.one/andrade-m>

Interinstitutional Graduate Program in Statistics (PIPGES) of Federal University of São Carlos with University of São Paulo promotes seminars groups (temporarily webinars, due to pandemic issues) of researches involving Probability, Statistics, Machine Learning etc. Our interest, among other things, is to stimulate the sharing of knowledge, as well as the connection between members of the program and researchers in other institutions.

Organizer

Michel H. Montoril, Department of Statistics,
Federal University of São Carlos.

UFSCar

A BAYESIAN APPROACH WITH HAMILTONIAN MONTE CARLO TO ZERO-MODIFIED POWER SERIES MODEL FOR COUNT DATA TIME SERIES

The paper aims to develop Zero-Modified (e.g., Inflated or Zero Deflated) models for time series with discrete data. The models introduced in this paper is an extension of Zero-Modified models of the Power Series family. The main advantage of the proposed model is the suitability of these models to fit time series data with both characteristics (zero-inflation and zero-deflation) present in the same time series. Inference methods based on the Bayesian approach, together with Hamiltonian Monte Carlo (HMC) techniques were considered. The paper also provides a relevant application for a real problem by modeling and forecast the series of notifications of the number of deaths from Influenza in the city of São Paulo, Brazil.

SPEAKER

Marinho G. Andrade

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BIO

Prof. Marinho G. Andrade graduated in Electrical Engineering from the Federal University of Pernambuco (1981). Master in Electrical Engineering from the State University of Campinas (1986). Ph.D. in Electrical Engineering from the State University of Campinas (1994). Post-Doctorate at the Department of Statistics of the Carlos III University of Madrid (2004). Postdoctoral fellow at the Department of Statistics, University of Connecticut, Storrs - CT/USA (Feb/2020-Feb/2021). He was head of the Department of Applied Mathematics and Statistics-SME of the Institute of Mathematical and Computer Sciences-ICMC-USP. Co-ordinator of the Interinstitutional Postgraduate Program in Statistics -PIPGES USP-UFSCar. He is currently an associate professor (free professor) at the University of São Paulo. He is interested in Probability and Statistics, emphasizing Time Series, working mainly on the following topics: Bayesian inference, MCMC simulation, time series, and models for count data.

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