JESSICA PAVANI

Profile

I am a Ph.D. candidate in the Department of Statistics at the Pontificia Universidad Católica de Chile. My current research focuses on Bayesian statistics, particularly spatial-temporal and product partition models. Furthermore, I am also interested in statistical modeling/methods in public health and computational methods, especially Markov chain Monte Carlo (MCMC) and Integrated Nested Laplace Approximation (INLA).

Contact Information

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Experience

Intern (2016) **Identia Institute**, Spain.

- Application of statistical techniques for different datasets in agronomic scenario from Bayesian and frequentist perspectives.

Trainee (2015) **Estatcamp Statistical Consulting**, Brazil.

- Working with the responsible group for basic statistics, statistical inference, SPC (statistical process control), process capability, DOE (design of experiments) and regression analysis. Assistant training in company, preparation of related linear mixed models methodology and consulting content.

Intern (2013) **Brazilian Agricultural Research Corporation**, Brazil.

- Application of statistical techniques in laser spectroscopy for Greening classification in citrus.

Volunteer Experience

Educator (2013) **Inclusão.com project**, Brazil.

- This project is composed of volunteers who seek to include the digitally poor communities in São Carlos - Brazil.

Educator (2012) **Pequeno cidadão project**, Brazil.

- This project aims to stimulate children through academic training and professional guidance of adolescents. It annually serves 220 children and adolescents between 10 and 14 years old in a situation of economic vulnerability in São Carlos - Brazil.

Teaching

Teaching Assistant at **Pontificia Universidad Católica de Chile**, Chile.

- Machine Learning Introduction, 2020, *Data Science specialization.*
- Bayesian Methods, 2019, *B.Sc. in Statistics.*

Education

Ph.D.(c) in Statistics (January 2023, expected), **Pontificia Universidad Católica de Chile**, Chile.

M.Sc. in Biostatistics (2017), **University of València**, Spain.

B.Sc. in Statistics (2015), **University of São Paulo**, Brazil.

Grants

1. Ph.D. scholarship from the Vicerrectoría de Investigación (VRI), 2019–2022.
2. COVID0248 – Estudio epidemiológico observacional para evaluar el efecto de medidas de control gubernamentales sobre la dinámica espacio-temporal de COVID-19 en Chile, 2020–2021. Role: Ph.D. Student.
3. Remote internship at King Abdullah University of Science and Technology, Saudi Arabia, May/2021–July/2021.

Refereed Journal Publications

1. Oliveira, C.M., **Pavani, J.**, Krieger, J.E., Alvim, R.O., Balcells-Camps, M., Mourão-Junior, C.A., Pereira, A.C., & Liu, C. (2020) Triglyceride glucose index as a tool to motivate early lifestyle modification in young adults at diabetes risk: The Baependi Heart Study. *Preventive Medicine Reports*, 20, 1–4.
2. **Pavani, J.** & Alvares, D. (2020) Statistically validating patient self-reporting questionnaires in medicine, *SAGE Research Methods: Medicine & Health Cases*, SAGE Publishing, 1–19.
3. Oliveira, C.M., **Pavani, J.**, Krieger, J.E., Alvim, R.O., Mourão-Junior, C.A., & Pereira, A.C. (2019) Body adiposity index accessing the type 2 diabetes mellitus development risk: The Baependi Heart Study. *Diabetology & Metabolic Syndrome*, 11(76), 76–80.

Conference Presentations and Seminars

Conferences:

1. **Pavani, J.**, Armero, C., & Conesa, D.: Different Bayesian computational methods for Gaussian state-space models. In: XLV Meeting of the Chilean Society of Statistics, Puerto Varas, Chile, October 21 – 25, 2019.
2. **Pavani, J.** & Alvares, D.: Bayesian classifier as support for an intelligent tutoring system. In: València International Bayesian Analysis Summer School, Burjassot, Spain, July 16 – 20, 2018.
3. **Pavani, J.**, Armero, C., & Conesa, D.: Dealing with MCMC and INLA approaches in Gaussian state-space models for dynamic populations. In: València International Bayesian Analysis Summer School, Burjassot, Spain, July 17 – 21, 2017.

Invited Seminars:

1. Exploring Bayesian approaches to Gaussian state-space models for dynamic populations. In: Seminari PREDOC - University of València, Burjassot, Spain, June 2017.
2. Determinação de descritores do espectro de fluorescência induzida por laser para classificação da doença Huanglongbing de citros. In: II Statistics Workshop - Institute of Mathematics and Computer Science - University of São Paulo, São Carlos, Brazil, November 2013.