

T. Magalhães | Curriculum Vitae

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Current Affiliation

Institute of Exact Sciences, Federal University of Juiz de Fora

Assistant Professor, Brazil

Acting Chair, Department of Statistics

Associate Chair, Department of Statistics

Juiz de Fora

Dec 2017–Present

Apr 2025

Mar 2020–Mar 2024

Research Interests

- Applied Statistics
- Regression models
- Statistical inference

Education

Institute of Mathematics and Statistics, University of São Paulo

PhD in Statistics, Brazil

São Paulo

2016

Institute of Mathematics and Statistics, University of São Paulo

MS in Statistics, Brazil

São Paulo

2011

Science Center, Federal University of Ceará

BA, magna cum laude, in Statistics, Brazil

Fortaleza

2008

Publications

Selected

2025: Inferential and predictive procedures for inverse gamma regression model. *Journal of Statistical Computation and Simulation* 95 (11), 2327–2342. (with D. Gallardo and M. Diniz)

2024: Bartlett corrections for zero-adjusted generalized linear models. *Statistical Papers* 65 (4), 2191–2209. (with G. Pereira, D. Botter and M. Sandoval)

2023: Improved inference for MCP-Mod approach using time-to-event endpoints with small sample sizes. *Pharmaceutical Statistics* 22 (5), 760–772. (with M. Diniz and D. Gallardo)

2022: A class of categorization methods for credit scoring models. *European Journal of Operational Research* 296 (1), 323–331. (with D. Silva and G. Pereira)

2021: A general expression for second-order covariance matrices - an application to dispersion models. *Brazilian Journal of Probability and Statistics* 35 (1), 37–49. (with D. Botter and M. Sandoval)

Peer-Reviewed

2026: Power properties of classical test statistics in Weibull regression models with censoring and their applications to sample size calculation. *AIMS Mathematics* 11 (5), 12825–12865. (with Y. Gómez, M. Diniz, O. Venegas and D. Gallardo)

2026: Patient-centred care during medical internship: a longitudinal study of humanisation of care in undergraduate medical education. *BMC Medical Education*. (with J. Yogui and D. Bivanco-Lima)

2025: Inferential and predictive procedures for inverse gamma regression model. *Journal of Statistical Computation and Simulation* 95 (11), 2327–2342. (with D. Gallardo and M. Diniz)

2025: Modeling PM2.5 Pollution Using a Truncated Positive Student's-t Distribution: A Case Study in Chile. *Mathematics* 13 (23), 3838. (With H. Gómez, K. Santoro, D. Gallardo and P. Leal)

2025: The impact of the sample size on the reliability of non-parametric statistical tests: a monte carlo simulation approach. *Principia: Caminhos Da Iniciação Científica* 24. (In Portuguese; with G. Mendes)

2024: Bartlett corrections for zero-adjusted generalized linear models. *Statistical Papers* 65 (4), 2191–2209. (with G. Pereira, D. Botter and M. Sandoval)

2024: Some asymptotic inferential aspects of the Kumaraswamy distribution. *Communications in Statistics - Theory and Methods* 53 (17), 6160–6176. (with H. Carneiro, M. Sandoval and D. Botter)

2024: Teaching the person-centered clinical method in undergraduate medicine: A narrative review. *Revista Brasileira de Educação Médica* 48 (04). (with J. Dos Santos Yogui and D. Bivanco)

2024: Myosteatoses as a risk factor for hepatocellular carcinoma recurrence after deceased donor liver transplantation. *Medical Research Archives* 12 (8). (with R. Bezerra, R. Pinheiro, A. Fortunato, L. Tambelini, G. Conti, M. Aguiar, V. Rocha-Santos, D. Waisberg, M. Rocha, G. Cerri, L. D'Albuquerque and W. Andraus)

2024: A new generalization of the truncated gumbel distribution with quantile regression and applications. *Mathematics* 12 (11), 1762. (with H. Gómez, K. Santoro, D. Ayma, I. Cortés and D. Gallardo)

2024: Power truncated positive normal distribution: a quantile regression approach applied to health databases. *Axioms* 13 (12), 811. (with K. Santoro, H. Gómez, I. Cortés and D. Gallardo)

2023: Improved inference for MCP-Mod approach using time-to-event endpoints with small sample sizes. *Pharmaceutical Statistics* 22 (5), 760–772. (with M. Diniz and D. Gallardo)

2023: Improved gradient statistic in heteroskedastic generalized linear models. *Journal of Statistical Computation and Simulation* 93 (12), 2052–2066. (with F. Barros, D. Botter and M. Sandoval)

2022: A bimodal model based on truncation positive normal with application to height data. *Symmetry* 14 (4), 665. (with H. Gómez, W. Caimanque, Y. Gómez, M. Concha and D. Gallardo)

2022: A class of categorization methods for credit scoring models. *European Journal of Operational Research* 296 (1), 323–331. (with D. Silva and G. Pereira)

2021: An asymmetric bimodal double regression model. *Symmetry* 13 (12), 2279. (with Y. Gómez, D. Gallardo and O. Venegas)

2021: Improved point estimation for inverse gamma regression models. *Journal of Statistical Computation and Simulation* 91 (12), 2444–2456. (with D. Gallardo and M. Bourguignon)

2021: A general expression for second-order covariance matrices - an application to dispersion models. *Brazilian Journal of Probability and Statistics* 35 (1), 37–49. (with D. Botter and M. Sandoval)

2020: Bartlett and Bartlett-type corrections for censored data from a Weibull distribution. *SORT - Statistics and Operations Research Transactions* 44 (1), 127–140. (with D. Gallardo)

2020: Bias reduction for the Marshall-Olkin extended family of distributions with application to an

airplane's air conditioning system and precipitation data. *Symmetry* 12 (5), 851. (with Y. Gómez, D. Gallardo and O. Venegas)

2019: Skewness of maximum likelihood estimators in the Weibull censored data. *Symmetry* 11 (11), 1351. (with D. Gallardo and H. Gómez)

2019: Skewness of maximum likelihood estimators in the varying dispersion beta regression model. *Communications in Statistics - Theory and Methods* 48 (17), 4250–4260. (with D. Botter, M. Sandoval, G. Pereira and G. Cordeiro)

2018: Propensity score matching comparison of laparoscopic versus open surgery for rectal cancer in middle-income country: short-term outcomes and cost analysis. *ClinicoEconomics and Outcomes Research* 10, 521–527. (with D. Tayar, U. Ribeiro-Jr, I. Ceconello, C. Simões and J. Auler-Jr)

2017: Corrigendum to: "Covariance matrix formula for generalized linear models with unknown dispersion" by G. M. Cordeiro, L. P. Barroso and D. A. Botter [Communications in Statistics - Theory and Methods (2006) 35(1), 113–120]. *Communications in Statistics - Theory and Methods* 46 (21), 10702–10704. (with D. Botter and M. Sandoval)

2013: Asymptotic skewness for the beta regression model. *Statistics and Probability Letters* 83 (10), 2236–2241. (with D. Botter and M. Sandoval)

Book Chapters.....

2025: Challenges and Benefits of Interdisciplinary Approaches in Undergraduate Research: Case Studies from ICE-UFJF. In Kistemann, M., Almeida, B., and Delgado, I. (eds) *Research at the Institute of Exact Sciences, Engineering, and Architecture, Federal University of Juiz de Fora*. Akademy, 111–122. (In Portuguese; with G. Mendes)

2024: International Dairy Federation Framework in Brazil - An Overview of the Brazilian Committee in the Global Context. In Costa, F., Húngaro, H., Silva, J., Rodarte, M., and Silva, P. (eds) *Management, Quality, and Technological Innovations: Academic Contributions in Milk and Dairy Science and Technology*. Editar, 205–220. (In Portuguese; with I. Silva, M. Alvarenga and P. Silva)

2020: Normality: Assumptions, Transformations and Outliers. In Lunardi, A. (eds) *Manual of clinical research applied to Health*. Blucher, 349–364. (In Portuguese; with M. Diniz)

2020: Logistic regression and related methods. In Piantadosi, S. and Meinert, C. (eds) *Principles and practice of clinical trials*. Springer, 1–23. (with M. Diniz)

Professional and Industry Publications.....

2016: On the performance of VWAP execution algorithms. *Global Trading Q4 (60)*, 43–45. (with H. Takada)

Manuscripts in Preparation and Submitted

- Correlation between the mesiodistal size of upper and lower incisors: a way of prediction. *Submitted to Dental Press Journal of Orthodontics*. (with L. Agra, J. Pereira, G. Maximiano, L. Elias, M. Campos and R. Vitral)
- Determinants of acute kidney injury development and progression in patients with decompensated cirrhosis admitted with bacterial infections. *In preparation*. (with R. Ximenes, D. Mazo, B. Migita, L. Mendes, A. Martinelli, R. Araújo, F. Souza, M. Álvares-da-Silva, D. Barbeiro, C. Helou, H. Souza, M. Gouvea, R. Greca, N. Vaz, P. Zitelli, M. Diniz, F. Carrilho, G. Garcia-Tsao and A. Farias)
- Likelihood-based statistics for enhancing inference and prediction in inverse gamma regression models. (with D. Gallardo and R. Izbicki)

- Understanding consumers' perceptions and trust in vegan certification: a mixed-methods study among vegetarians and vegans in Brazil. *Submitted to Food Science and Technology*. (with N. Lage, V. Nakajima and J. Vilar)

Research Grants and Funding

Minas Gerais State Research Support Foundation (FAPEMIG) <i>Principal Investigator</i> Bias Correction and Improved Inference in Regression Models Based on Reparameterized Distributions. Project No. APQ-03202-26.	Brazil 2026–2029
Minas Gerais State Research Support Foundation (FAPEMIG) <i>Co-Investigator</i> Minas Gerais Mathematics Network. Project No. RED-00133-21.	Brazil 2024–2027

Teaching Experience

Institute of Mathematics and Statistics, University of São Paulo <i>Visiting Professor, Brazil</i>	São Paulo Nov 2023
Engineering School, University of Atacama <i>Visiting Professor, Chile</i>	Copiapó Aug 2019
Engineering School, University of Atacama <i>Visiting Professor, Chile</i>	Copiapó Sep 2018
Institute of Mathematics and Statistics, University of São Paulo <i>Lecturer, Brazil</i> Uma Introdução à Análise Exploratória de Dados e Métodos Estatísticos [<i>An Introduction to Exploratory Data Analysis and Statistical Methods</i>]	São Paulo Jan 2018
Institute of Mathematics and Statistics, University of São Paulo <i>Instructor, Brazil</i> Métodos Estatísticos Aplicados às Ciências Biológicas [<i>Statistical Methods Applied to Biological Sciences</i>]	São Paulo Aug–Nov 2015
Institute of Mathematics and Statistics, University of São Paulo <i>Lecturer, Brazil</i> Uma Introdução à Análise Exploratória de Dados e Métodos Estatísticos [<i>An Introduction to Exploratory Data Analysis and Statistical Methods</i>]	São Paulo Jan 2014
Institute of Mathematics and Statistics, University of São Paulo <i>Teaching Assistant, Brazil</i> Controle Estatístico de Qualidade [<i>Statistical Quality Control</i>]	São Paulo Jul–Nov 2013
Institute of Mathematics and Statistics, University of São Paulo <i>Lecturer, Brazil</i> Uma Introdução à Análise Exploratória de Dados e Métodos Estatísticos [<i>An Introduction to Exploratory Data Analysis and Statistical Methods</i>]	São Paulo Jan 2013
Institute of Mathematics and Statistics, University of São Paulo <i>Teaching Assistant, Brazil</i> Noções de Estatística [<i>Basic Statistics</i>]	São Paulo Jul–Nov 2012
Institute of Mathematics and Statistics, University of São Paulo <i>Teaching Assistant, Brazil</i> Noções de Estatística [<i>Basic Statistics</i>]	São Paulo Jul–Nov 2011

Institute of Mathematics and Statistics, University of São Paulo
Teaching Assistant, Brazil
Noções de Estatística [Basic Statistics]

São Paulo
Jul–Nov 2010

Professional Experience

Itaú Asset Management, Itaú-Unibanco Bank
Senior Quantitative Research Analyst, Brazil

São Paulo
Jan–Dec 2016

Conferences and Workshops

2026

September 13 - 18

Gramado

26o. Simpósio Nacional de Probabilidade e Estatística, Brazil

CT: Inference and prediction in inverse gamma regression: an application to Leptinaria Unilamellata.

2024

August 4 - 9

Fortaleza

25o. Simpósio Nacional de Probabilidade e Estatística, Brazil

CT: Improved inference for MCP-Mod approach using time-to-event endpoints with small sample sizes.

2023

August 23 - 25

Belo Horizonte

II Reunião Mineira de Matemática, Brazil

CT: Improved inference for MCP-Mod approach using time-to-event endpoints with small sample sizes.

2022

July 31 - August 5

Gramado

24o. Simpósio Nacional de Probabilidade e Estatística, Brazil

CT: A class of categorization methods for credit scoring models.

2018

September 23 - 28

São Pedro

23o. Simpósio Nacional de Probabilidade e Estatística, Brazil

CT: Median bias reduction of maximum likelihood estimates in the Kumaraswamy distribution.

2016

May 29 - June 1

St. Catharines

44th Annual Meeting of the Statistical Society of Canada, Canada

CT: A Wald-type test in proper dispersion models.

2015

March 2 - 5

Campinas

XIV Brazilian School of Regression Models, Brazil

P: Wald test in finite samples.

February 9 - 11

São Carlos

3rd Workshop on Probabilistic and Statistical Methods, Brazil

2014

July 20 - 25

Natal

XXI Simpósio Nacional de Probabilidade e Estatística, Brazil

CT: An improved Wald test in dispersion models.

2013

August 3 - 8

Montréal

2013 Joint Statistical Meetings, Canada

P: Skewness of the maximum likelihood estimators in beta regression model.

February 24 - 27

São Sebastião

13a. Escola de Modelos de Regressão, Brazil

P: Coeficiente de assimetria de ordem $n^{-1/2}$ da distribuição dos estimadores de máxima verossimilhança dos parâmetros do modelo de regressão beta heterocedástico [*Skewness coefficient of order $n^{-1/2}$ of the distribution of the maximum likelihood estimators of the parameters in heteroskedastic beta regression model*].

2012

July 30 - August 3

João Pessoa

20o. Simpósio Nacional de Probabilidade e Estatística, Brazil

CT: Assimetria assintótica no modelo de regressão beta [*Asymptotic skewness in the beta regression model*].

2011

March 13 - 16

Fortaleza

XII Escola de Modelos de Regressão, Brazil

P: Matriz de covariâncias de segunda ordem do estimador de máxima verossimilhança corrigido pelo viés em modelos não lineares da família exponencial [*Second-order covariance matrix of the bias-corrected maximum likelihood estimator in exponential family nonlinear models*].

2010

July 26 - 30

São Pedro

19o. Simpósio Nacional de Probabilidade e Estatística, Brazil

P: Matriz de covariâncias de segunda ordem do estimador de máxima verossimilhança corrigido pelo viés em modelos não lineares da família exponencial [*Second-order covariance matrix of the bias-corrected maximum likelihood estimator in exponential family nonlinear models*].

2008

October 28 - 31

Fortaleza

XXVII Encontro Universitário de Iniciação Científica, Brazil

P: Comparação entre testes de independência [*Comparison of independence tests*].

2007

June 14 - 15

Fortaleza

XXVI Encontro Universitário de Iniciação Científica, Brazil

CT: Um estudo sobre indicadores sócio-econômicos dos municípios do Estado do Ceará via análise espacial e sistemas de informações geográficas [*A study on socio-economic indicators of the municipalities of the State of Ceará via spatial analysis and geographic information systems*].

2006

June 22 - 23

Fortaleza

XXV Encontro Universitário de Iniciação Científica, Brazil

CT: Um estudo sobre indicadores sócio-econômicos dos municípios do Estado do Ceará via análise espacial e sistemas de informações geográficas [*A study on socio-economic indicators of the municipalities of the State of Ceará via spatial analysis and geographic information systems*].

Remark:: CT means Contributed Talk and P means Poster Presentation

Reviewer

- BMJ Open (ISSN: 2044-6055)
- Environmental and Ecological Statistics (ISSN: 1352-8505)
- Journal of Applied Statistics (ISSN: 0266-4763)
- Journal of Statistical Computation and Simulation (ISSN: 0094-9655)
- Quality & Quantity (ISSN: 0033-5177)
- Scientific Reports (ISSN: 2045-2322)
- São Paulo Journal of Mathematical Sciences (ISSN: 1982-6907)
- Statistical Methods in Medical Research (ISSN: 9780632052578)
- Statistics & Probability Letters (ISSN: 0167-7152)

Awards & Scholarships

Institute of Mathematics and Statistics, University of São Paulo <i>Scholarships of CAPES, Brazil</i> Postdoctoral scholarship of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior	São Paulo 2017
Institute of Mathematics and Statistics, University of São Paulo <i>Scholarships of CNPq, Brazil</i> PhD scholarship of the Conselho Nacional de Desenvolvimento Científico e Tecnológico	São Paulo 2012–2015
Institute of Mathematics and Statistics, University of São Paulo <i>Scholarships of CAPES, Brazil</i> PhD scholarship of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior	São Paulo 2011–2012
Institute of Mathematics and Statistics, University of São Paulo <i>Scholarships of CNPq, Brazil</i> Master scholarship of the Conselho Nacional de Desenvolvimento Científico e Tecnológico	São Paulo 2009–2011
Science Center, Federal University of Ceará <i>Scholarships of CNPq, Brazil</i> Undergraduate research scholarship of the Conselho Nacional de Desenvolvimento Científico e Tecnológico	Fortaleza 2007–2008
Science Center, Federal University of Ceará <i>Scholarships of PIBIC, Brazil</i> Undergraduate research scholarship of the Programa Institucional de Bolsas de Iniciação Científica	Fortaleza 2006–2007
Science Center, Federal University of Ceará <i>Scholarships of PIBIC, Brazil</i> Undergraduate research scholarship of the Programa Institucional de Bolsas de Iniciação Científica	Fortaleza 2006

Member of Committees

Institute of Mathematics and Statistics, University of São Paulo <i>Member of the CCP - Statistics, Brazil</i> Graduate Representative in the Coordinating Committee Program - Statistics	São Paulo 2013
Institute of Mathematics and Statistics, University of São Paulo <i>Member of the MAE Council, Brazil</i> Graduate Representative in the Council of the Department of Statistics	São Paulo 2010

Programming Languages

C, Excel, HTML, Latex, Matlab, Ox, R and VBA

Languages

Portuguese: Mothertongue

English: Advanced

French: Intermediate

Spanish: Basic

Updated

October 2, 2026

Αθήνα