# T. Magalhães | Curriculum Vitae

✉ tiago.magalhaes@ufjf.br ● 🖱 www.ufjf.br/tiago_magalhaes

## Current Affiliation

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|---|---|
| **Institute of Exact Sciences, Federal University of Juiz de Fora** | **Juiz de Fora** |
| *Assistant Professor, Brazil* | *Dec 2017–Present* |
| *Associate Chair, Department of Statistics* | *Mar 2020–Mar 2024* |

## Education

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|---|---|
| **Institute of Mathematics and Statistics, University of São Paulo** | **São Paulo** |
| *PhD in Statistics, Brazil* | *2016* |
| **Institute of Mathematics and Statistics, University of São Paulo** | **São Paulo** |
| *MS in Statistics, Brazil* | *2011* |
| **Science Center, Federal University of Ceará** | **Fortaleza** |
| *BA, magna cum laude, in Statistics, Brazil* | *2008* |

## Languages

**Portuguese**: Mothertongue

**English**: Advanced

**French**: Intermediate

**Spanish**: Basic

## Research Interests

- Applied Statistics
- Regression models
- Statistical inference

## Publications

**Peer-Reviewed**........................................................................................................

**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**: Myosteatosis as a risk factor for hepatocelular 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. Cecconello, 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 and magazines

**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)

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

## Manuscripts in Preparation and Submitted

- Inferential and predictive procedures for inverse gamma regression model. (with D. Gallardo and M. Diniz)
- Determinants of acute kidney injury development and progression in patients with decompensated cirrhosis admitted with bacterial infections. (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, A. Farias)
- Vegan seal: beliefs and reality about the perception of vegetarians and vegans. (with N. Lage, V. Nakajima and J. Vilar)

## Reviewer

- BMJ Open (ISSN: 2044-6055)
- Ciencia & Natura (ISSN: 2179-460X)
- Colombian Journal of Statistics (ISSN: 0120-1751)
- Computation (ISSN: 2079-3197)
- Journal of Applied Statistics (ISSN: 0266-4763)
- Journal of Statistical Computation and Simulation (ISSN: 0094-9655)
- Revista Brasileira de Biometria (ISSN: 1983-0823)
- Scientific Reports (ISSN: 2045-2322)
- Statistics & Probability Letters (ISSN: 0167-7152)

## Teaching Experience

**Engineering School, University of Atacama**                                            **Copiapó**
*Visiting Professor, Chile*                                                                 *Aug 2019*

**Engineering School, University of Atacama**                                            **Copiapó**
*Visiting Professor, Chile*                                                                 *Sep 2018*

**Institute of Mathematics and Statistics, University of São Paulo**           **São Paulo**
*Lecturer, Brazil*                                                                         *Jan 2018*
Uma Introdução à Análise Exploratória de Dados e Metódos Estatísticos *[An Introduction to Exploratory Data Analysis and Statistical Methods]*

**Institute of Mathematics and Statistics, University of São Paulo**           **São Paulo**
*Instructor, Brazil*                                                                   *Aug–Nov 2015*
Métodos Estatísticos Aplicados às Ciências Biológicas *[Statistical Methods Applied to Biological Sciences]*

**Institute of Mathematics and Statistics, University of São Paulo**           **São Paulo**
*Lecturer, Brazil*                                                                         *Jan 2014*
Uma Introdução à Análise Exploratória de Dados e Metódos Estatísticos *[An Introduction to Exploratory Data Analysis and Statistical Methods]*

**Institute of Mathematics and Statistics, University of São Paulo**  São Paulo
*Teaching Assistant, Brazil*  *Jul–Nov 2013*
Controle Estatístico de Qualidade *[Statistical Quality Control]*

**Institute of Mathematics and Statistics, University of São Paulo**  São Paulo
*Lecturer, Brazil*  *Jan 2013*
Uma Introdução à Análise Exploratória de Dados e Metódos Estatísticos *[An Introduction to Exploratory Data Analysis and Statistical Methods]*

**Institute of Mathematics and Statistics, University of São Paulo**  São Paulo
*Teaching Assistant, Brazil*  *Jul–Nov 2012*
Noções de Estatística *[Basic Statistics]*

**Institute of Mathematics and Statistics, University of São Paulo**  São Paulo
*Teaching Assistant, Brazil*  *Jul–Nov 2011*
Noções de Estatística *[Basic Statistics]*

**Institute of Mathematics and Statistics, University of São Paulo**  São Paulo
*Teaching Assistant, Brazil*  *Jul–Nov 2010*
Noções de Estatística *[Basic Statistics]*

## Professional Experience

**Itaú Asset Management, Itaú-Unibanco Bank**  São Paulo
*Senior Quantitative Research Analyst, Brazil*  *Jan–Dec 2016*

## Programming Languages

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

## Conferences and Workshops

### 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]*.

**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

## Awards & Scholarships

**Institute of Mathematics and Statistics, University of São Paulo**                **São Paulo**
*Scholarships of CAPES, Brazil*                                                                *2017*
Postdoctoral scholarship of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior

**Institute of Mathematics and Statistics, University of São Paulo**                **São Paulo**
*Scholarships of CNPq, Brazil*                                                                *2012–2015*
PhD scholarship of the Conselho Nacional de Desenvolvimento Científico e Tecnológico

**Institute of Mathematics and Statistics, University of São Paulo**                **São Paulo**
*Scholarships of CAPES, Brazil*                                                                *2011–2012*
PhD scholarship of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior

**Institute of Mathematics and Statistics, University of São Paulo**                **São Paulo**
*Scholarships of CNPq, Brazil*                                                                *2009–2011*
Master scholarship of the Conselho Nacional de Desenvolvimento Científico e Tecnológico

**Science Center, Federal University of Ceará**                                            **Fortaleza**
*Scholarships of CNPq, Brazil*                                                                *2007–2008*
Undergraduate research scholarship of the Conselho Nacional de Desenvolvimento Científico e Tecnológico

**Science Center, Federal University of Ceará**                                            **Fortaleza**
*Scholarships of PIBIC, Brazil*                                                                *2006–2007*
Undergraduate research scholarship of the Programa Institucional de Bolsas de Iniciação Científica

**Science Center, Federal University of Ceará**                                            **Fortaleza**
*Scholarships of PIBIC, Brazil*                                                                *2006*
Undergraduate research scholarship of the Programa Institucional de Bolsas de Iniciação Científica

## Member of Committees

**Institute of Mathematics and Statistics, University of São Paulo**                **São Paulo**
*Member of the CCP - Statistics, Brazil*                                                    *2013*
Graduate Representative in the Coordinating Committee Program - Statistics

**Institute of Mathematics and Statistics, University of São Paulo**                **São Paulo**
*Member of the MAE Council, Brazil*                                                        *2010*
Graduate Representative in the Council of the Department of Statistics

# Updated

December 12, 2024