

# T. Magalhães | Curriculum Vitae

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## Current Affiliation

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**Institute of Exact Sciences, Federal University of Juiz de Fora**

*Assistant Professor, Brazil*

*Associate Chair, Department of Statistics*

**Juiz de Fora**

*Dec 2017–Present*

*Mar 2020–Present*

## Education

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**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*

## Languages

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**Portuguese:** Mother tongue

**English:** Advanced

**French:** Intermediate

**Spanish:** Basic

## Research Interests

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- Applied Statistics
- Regression models
- Statistical inference

## Publications

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### Peer-Reviewed

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**To appear:** Bartlett corrections for zero-adjusted generalized linear models. *Statistical Papers*, DOI: 10.1007/s00362-023-01477-2. (with G. Pereira, D. Botter and M. Sandoval)

**To appear:** Some asymptotic inferential aspects of the Kumaraswamy distribution. *Communications in Statistics - Theory and Methods*, DOI: 10.1080/03610926.2023.2241091. (with H. Carneiro, M. Sandoval and D. Botter)

**2023:** Improved inference in censored Weibull regression model: an application on the MCP-Mod approach with time-to-event endpoints. *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)

## **Others**.....

- 2020:** Normalidade dos dados: suposições, transformações e valores atípicos. In Lunardi, A. *Manual de pesquisa clínica aplicada à saúde*. Blucher, 349–364. [Gaussian data: assumptions, transformations and outliers/Manual of clinical research applied to healthcare] (with M. Diniz)
- 2020:** Logistic regression and related methods. In Piantadosi, S. and Meinert, C. *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)

## **Reviewer**

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- 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)
- Revista Brasileira de Biometria (ISSN: 1983-0823)
- Scientific Reports (ISSN: 2045-2322)
- Statistics & Probability Letters (ISSN: 0167-7152)

## Teaching Experience

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<b>Engineering School, University of Atacama</b> <i>Visiting Professor, Chile</i>	<b>Copiapó</b> Aug 2019
<b>Engineering School, University of Atacama</b> <i>Visiting Professor, Chile</i>	<b>Copiapó</b> Sep 2018
<b>Institute of Mathematics and Statistics, University of São Paulo</b> <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> ]	<b>São Paulo</b> Jan 2018
<b>Institute of Mathematics and Statistics, University of São Paulo</b> <i>Instructor, Brazil</i> Métodos Estatísticos Aplicados às Ciências Biológicas [ <i>Statistical Methods Applied to Biological Sciences</i> ]	<b>São Paulo</b> Aug–Nov 2015
<b>Institute of Mathematics and Statistics, University of São Paulo</b> <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> ]	<b>São Paulo</b> Jan 2014
<b>Institute of Mathematics and Statistics, University of São Paulo</b> <i>Teaching Assistant, Brazil</i> Controle Estatístico de Qualidade [ <i>Statistical Quality Control</i> ]	<b>São Paulo</b> Jul–Nov 2013
<b>Institute of Mathematics and Statistics, University of São Paulo</b> <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> ]	<b>São Paulo</b> Jan 2013
<b>Institute of Mathematics and Statistics, University of São Paulo</b> <i>Teaching Assistant, Brazil</i> Noções de Estatística [ <i>Basic Statistics</i> ]	<b>São Paulo</b> Jul–Nov 2012
<b>Institute of Mathematics and Statistics, University of São Paulo</b> <i>Teaching Assistant, Brazil</i> Noções de Estatística [ <i>Basic Statistics</i> ]	<b>São Paulo</b> Jul–Nov 2011
<b>Institute of Mathematics and Statistics, University of São Paulo</b> <i>Teaching Assistant, Brazil</i> Noções de Estatística [ <i>Basic Statistics</i> ]	<b>São Paulo</b> Jul–Nov 2010

## Professional Experience

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<b>Itaú Asset Management, Itaú-Unibanco Bank</b> <i>Senior Quantitative Research Analyst, Brazil</i>	<b>São Paulo</b> Jan–Dec 2016
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## Programming Languages

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

## Conferences and Workshops

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### 2022

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**July 31 - August 5**

**Gramado**

*24o. Simpósio Nacional de Probabilidade e Estatística, Brazil*

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

### 2018

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**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

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**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

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**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

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**July 20 - 25**

**Natal**

*XXI Simpósio Nacional de Probabilidade e Estatística, Brazil*

CT: An improved Wald test in dispersion models.

### 2013

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**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

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**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

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**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

## Awards & Scholarships

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

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**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

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October 4, 2023

*Abijwa*