PERSONAL INFORMATION (updated 01/26/2025)

Victor Hugo Lachos Davila, PhD
Professor, Department of Statistics
University of Connecticut
Austin Building, Room #316
215 Glenbrook Road, U-4120, Storrs, CT 06269

Email	: hlachos@uconn.edu
	hlachos@gmail.com
Web	: http://hlachos.stat.uconn.edu
Google Scholar Citation	: https://scholar.google.com/citations?user=-aosoKwAAAAJ

PROFESSIONAL SUMMARY

Primary Departmental Program Areas: Statistics

Areas of expertise and interest: Linear/nonlinear mixed-effects models, skew-elliptical distributions, time series analysis, measurement error models, semiparametric models, censored regression, spatial models, augmented models, finite mixture of distributions

EDUCATION

Graduate

2009 - 2010   **Postdoctoral Studies**
University of Connecticut, USA
Advisor: Dipak K. Dey

2002 - 2004   **Ph.D. degree in Statistics**
Department of Statitstics, São Paulo State University, USP, São Paulo, Brazil
Thesis: Assymetrics Linear Mixed Models
Advisor: Heleno Bolfarine and Reinaldo B. Arellano-Valle

2000 - 2002   **M.Sc. degree in Statistics**
Department of Statistics, Campinas State University, UNICAMP, Campinas, Brazil.
Thesis: Inference and Diagnostics in Measurement Error Models
Advisor: Filidor Vilca Labra

Undergraduate

1995 - 1999   **B.Sc. degree in Statistics and Informatics (Honors)**
Department of Statistics, "La Molina" Nacional University Agrarian, UNALM, Perú

WORK EXPERIENCE

Academic Appointment History

08/2017–Current   Professor [Tenured], Department of Statistics,
University of Connecticut, Storrs, USA.

08/2016–05/2017   Visiting professor, Department of Statistics,
University of Connecticut, Storrs, USA.

03/2017–08/2017   Professor [Tenured], Department of Mathematics and Statistics,
Campinas State University, UNICAMP, Campinas, Brazil

11/2011–03/2017   Associate professor [Tenured], Department of Mathematics and Statistics, Campinas State University, UNICAMP, Campinas, Brazil

04/2006–11/2011   Assistant professor: Department of Mathematics and Statistics
Campinas State University, UNICAMP, Campinas, Brazil

Other Employment History

05/2011–04/2015   Director of the Undergraduate Program in Statistics.
Campinas State University, UNICAMP, Campinas, Brazil

10/2004 –03/ 2006   Senior Analyst: Dynamic Modeling of Operations and Markets,
Bayes Forecast. Sao Paulo Brazil

02/1999 –07/ 1999   Research Assistance: Center of Cancer Research "Maes
Heller", Lima-Peru.

AWARDS AND FELLOWSHIP

1. Fellowship: Coordination for the Improvement of Higher Education Personnel - CAPES, M.Sc. studies, 03/2000 -02/2002. Brazil

2. Fellowship: Coordination for the Improvement of Higher Education Personnel - CAPES, Ph.D. studies, 03/2002 -10/2004. Brazil

3. Honorary Mention for the Best Master Thesis, National Symposium in Probability and Statistics - SINAPE, July 2002. Brazil.

4. Received the IASI Award for excellence for the Best Young Research in the area of Statistics in the American Region, National Symposium in Probability and Statistics - SINAPE, July 2008.

5. Received the Distinguished Professor Award "Zeferino Vaz" from Campinas State University - Brazil, December, 2012.

6. Received the CAPES (Coordination for the Improvement of Higher Education Personnel) <u>honorable mention for the Supervision of the Best Doctoral Thesis</u> in the area of Mathematics and Statistics, December 2015, Brazil.

7. Received <u>Honorary Doctor Degree</u>, from *Universidad Pedro Ruiz Gallo*, Lambayeque-Peru, October 2016.

8. Recognition for <u>Teaching Excellence</u>, UConn Provost's Office. Fall 2016, spring 2017 and fall 2019.

Award with Graduate Students

1. Denise Reis Costa, Ph.D. received the Best Poster Presentation Award during the II CONBRATRI (*Congresso Brasileiro de Teoria de Resposta ao Item*). Bahia - Brazil, December-2011.

2. Larissa Avila Matos, Ph.D. received an honorary mention for the Best Master Thesis defended in the period 2010-2011. SINAPE AWARD. Joao Pessoa - Brazil, July-2012.

3. Christian Eduardo Galarza Morales, M.Sc. received the Inter American Statistical Institute (IASI) Award for Excellence for the Best Young Research in the area of Statistics in the American Region during the Word Congress of Statistics (ISI-2015). Rio de Janeiro - Brazil, July-2015.

4. Aldo William Medina Garay, Ph.D. received the second prize for the Best Doctoral Thesis during the 60th RBRAS and 16th SEAGRO. Presidente Prudente, Sao Paulo - Brazil, July-2015.

5. Diana Milena Galvis Soto, Ph.D. received an honorary mention for the Best Thesis in the area of Mathematics and Statistics defended in the period 2014-2015. CAPES Thesis Award. Brasilia – Brazil, December - 2015.

6. Christian Eduardo Galarza Morales, Ph.D. was awarded the first prize for the Best Master Thesis defended in the period 2014-2015. National Symposium of Probability and Statistics - SINAPE AWARD. Porto Alegre- Brazil, July-2016.

7. Diana Milena Galvis Soto, Ph.D. was awarded the first prize for the Best Doctoral Thesis defended in the period 2014-2015. National Symposium of Probability and Statistics - SINAPE AWARD. Porto Alegre - Brazil, July-2016.

8. Christian Eduardo Galarza Morales, Ph.D. received the Jan Tinbergen Award during the Word Congress of Statistics (ISI-2017). Marrakech - Morocco, July-2017.

9. Fernanda Lang Schumacher, Ph.D. was awarded the second prize for the

Best Master Thesis defended in the period 2015-2017. SINAPE AWARD. Aguas de São Pedro - Brazil, July-2018.

10. Christian Eduardo Galarza Morales, Ph.D. received the "Best LACSC -2019 Paper Award" at the 4th Latin American Conference for Statistical Computing. Guayaquil - Ecuador, May-2019.

11. José Alejandro Ordoñez, Ph.D. received the "Best EBEB -2020 Poster Award" in the 15th Brazilian Meeting of Bayesian Statistics. São Paulo, Brazil, March-2020.

12. Fernanda Lang Schumacher, Ph.D. received a Student Competition Award of Statistics in association with the Conference in Honour of Fred Smith and Chris Skinner". Southhampton, UK, June-2021.

13. Katherine Andreina Loor Valeriano, M.Sc. received an honorary mention for the Best Master Thesis defended in the period 2017-2019. Brazilian Statistics Association, Brazil, July-2021.

14. **Brisilda Ndreka**, Ph.D. received a Student Poster Award at "Pushing the Boundary of Data Science through Statistical Modeling and Inference: A Conference in Honor of Prof. Dipak Dey". Blacksburg, VA, July 13-14, 2023.

15. **Heeju Lim**, Ph.D. received a "Student Poster Award at Stat4Stat" conference. Storrs, UConn Campus, CT, May 9-11, 2024.

16. **Brisilda Ndreka**, Ph.D. received "NESS Student Poster Award 2024" in the 37th New England Statistics Symposium. Connecticut, USA, May-2024.

17. Former Ph.D. student **Larissa Avila Matos**, a faculty member in the Department of Statistics at Campinas State University is one of the winners of the 19th edition of For Women in Science 2024 (Brazil), an initiative carried out in partnership between the Brazilian Academy of Sciences (ABC), UNESCO, and the L'Oréal Group in Brazil.

MEMBERSHIP IN SCIENTIFIC OR PROFESSIONAL SOCIETIES

1. New England Statistical Society (NESS) [Life Member]
2. Brazilian Statistical Association (ABE) [2002 - Present]
3. American Statistical Association (ASA) [2017-Present]
4. International Chinese Statistical Association (ICSA) [2016-Present]
5. International Statistical Institute (ISI) [2015 - Present]
6. Inter-American Statistical Institute (IASI) [2008 - Present]
7. International Society for Bayesian Analysis (ISBA) [2010-2015]
8. Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) [2017-2018]

SCIENTIFIC AND SCHOLARLY ACTIVITIES

EXPERT SERVICE

Editorial Board Positions

Associate Editor for

- Sankhya Series B - Official Journal of Indian Statistical Institute (2016 – Present)
- Brazilian Journal of Probability and Statistics (2014 – Present)
- Stats, Open Access Journal of Statistical Sciences (2016 - Present)
- Electronic Journal of Statistics (2021- 2024)
- Measurement: Interdisciplinary Research and Perspectives (2024-present)

Grant Review

- Ad hoc Reviewer, Statistical grants for Fondecyt [Fondo Nacional de Desarrollo Científico y Tecnológico] – the principal public funding entity of the Govt. of Chile
- Ad hoc Reviewer, Statistical grants for CNPq [Concelho Nacional de Ciencia e tecnologia] – the principal public funding entity of the Govt. of Brazil.
- Ad hoc Reviewer, Statistical grants for FAPESP [Fundação de Amparo à Pesquisa do Estado de São Paulo] – the principal public funding entity of the Sao Paulo State- Brazil
- Ad hoc Reviewer, Statistical grants for FECEPE [Fundação de Amparo à Pesquisa do Estado de Pernambuco] – the principal public funding entity of the Pernambuco-Brazil
- Ad hoc Reviewer, Statistical grants for PUCP - Peru [Pontificia Universidad Católica del Perú]
- Ad hoc Reviewer, Statistical grants for Swiss National Science Foundation- Swiss [Research Projects of the Research Foundation Flanders (FWO)]
- Panelist, Grant Review Panel SNF/DMS.
- Ad hoc Reviewer, Statistical grants for European Science Foundation [SNSF/ Div. Mathematics, Physical and Engineering Sciences]
- Ad hoc Reviewer, grants for European Science Foundation [FWO-Evaluation on research Grant]

Journal Referee

Journal of the American Statistical Association
Journal of Computational and Graphical Statistics
The American Statistician
Biostatistics
Journal of Agricultural, Biological and Environmental Statistics.

Statistical Modeling.
Bayesian Analysis
Journal of Multivariate Analysis.
Statistics (Berlin).
Communication in Statistics: Simulation and Computation.
Communication in Statistics: Theory and Methods
Communication in Statistics: Case Studies and Data Analysis
Journal of Statistical Computation and Simulation.
Computational Statistics, Computational Statistics & Data Analysis.
Statistics and Probability Letters.
Brazilian Journal of Probability and Statistics.
Statistics and its Interface
Statistics and Computing
Scandinavian Journal of Statistics
Test
Metrika
Journal of Applied Statistics
Statistical Papers
Revista Brasileira de Biometria
Advances in Statistical Analysis.
Advances in Data Analysis and Classification.
Biometrical Journal.
Environmetrics
Applied Stochastic Models in Business and Industry.
The Chilean Journal of Statistics
Neurocomputing
Journal of Statistical Theory and Practice.
REVSTAT
Quantitative Finance
Studies in Nonlinear Dynamics and Econometrics
Iranian Journal of Science and Technology Transactions A: Science
Digital Signal Processing
Statistical Methods & Applications
Journal of Biopharmaceutical Statistics
Soft Computing
Journal of the Royal Statistical Society, Series A.
Journal of the Royal Statistical Society, Series B.
Journal of the Royal Statistical Society, Series C.
Sankhya A and B
Statistics in Medicine
Information Sciences
Environmental and Ecological Statistics
Mathematics and Computers in Simulations
Metron.
Statistical Methods in Medical Research.
Computational Economics
Statistical Analysis and Data Mining
Computational Intelligence

Spatial Statistics
Communications for Statistical Applications and Methods
Austrian Journal of Statistics
Alexandria Engineering Journal
Transactions on Knowledge Discovery from Data
International Statistics Review
Stat
The Canadian Journal of Statistics

Short Academic Visits

- Department of Statistics, Pontificia Universidade Catolica del Peru, Peru [2007,2022]
- Department of Biostatistics and Winship Cancer Institute, Emory University [2009]
- Department of Statistics, University of Connecticut [2010]
- Department of Statistics, Universidad de Concepcion, Chile [2011,2012,2013,2014]
- School of Public Health, University of Minnesota [2012,2013,2014, 2015]
- Department of Statistics, Pontificia Universidade Catolica de Santiago, Chile [2011, 2017, 2022, 2023, 2024]
- Department of Applied Mathematics, Institute of Statistics. National Chung Hsing University, Taichung, Taiwan [2013, 2017, 2019, 2023, 2024]
- Department of Statistics, Graduate Institute of Statistics and Actuarial Science, Feng Chia University, Taichung, Taiwan [2013, 2017]
- Department of Statistics, University of Southampton, Southampton, UK [2015]
- Department of Statistics, Universidad del Quindío, Colombia [2017]
- Department of Statistics, Universidad Nacional de Colombia, Colombia [2018]
- Department of Statistics, Universidade Estadual de Campinas, Brazil [2018, 2021, 2022, 2023]
- Department of Statistics, University of Padua, Italia [2019]
- Department of Statistics, Universidad Nacional de Trujillo, Trujillo Peru [2020]
- Department of Statistics, Universidad Nacional Pedro Ruiz Gallo, Chiclayo, Peru [2019, 2020]
- Department of Economics and Business, University of Catania, Catania, Italy [2023]
- Department of Statistics, National Cheng Kung University, Tainan, Taiwan [2023]
- Department of Statistics, Federal University of Pernambuco, Pernambuco, Brazil [2023]
- Department of Applied Mathematics and Statistics, Universidade de São Paulo, São Carlos, Brazil [2023, 2024]
- Department of Statistics, Federal University of Ceara, Fortaleza, Brazil [2024]
- Department of Statistics, Federal University of Juiz de Fora, Minas Gerais, Brazil [2024]

GRANTS AND CONTRACTS

1. *Estimação e diagnóstico em modelos de regressão skew-t-normal.* Research Fellowship. FAPESP – Process # 2006/57721-8. Total Award Amount: R$33,000, 07/01/2006 06/30/2008.

2. *Modelos lineares e não lineares com distribuições de mistura da escala skew-normal.* Research Fellowship - Level 2 CNPq – Process # 308109/2008-2. Total Award Amount: R$36,000, 01/03/2009 – 02/28/2012.

3. *Modelos robustos com distribuições de mistura da scala skew-normal.* FAPESP – Process # 2008/11455-0. Total Award Amount: R$30.450,00, 06/01/2009 – 05/31/2011.

4. *Modelos hierárquicos com distribuições de mistura da escala skew-normal.* Research Fellowship . Process # FAPESP 2008/02159. Total Award Amount: R$34289,16, 08/01/2008 –07/31/2010.

5. *Modelos não lineares com distribuições de mistura da escala da skew-normal.* Funding for postdoc studies at Uconn CNPq – Process # 201384/2008-6. Total Award Amount: US$ 32600 (in dollar), 06/01/2009 –05/31/2010.

6. *Modelos lineares e não lineares com distribuições de mistura da scala skew-normal.* Funding for postdoc studies at Uconn. FAPESP – Process # 2010/01246-5. Total Award Amount: US$ 21540 (in dollar), 07/01/2009 –12/31/2010.

7. *Processos espaciais de misturas de escala skew-normal.* Research Fellowship. FAPESP – Process # 2011/01437-8. Total Award Amount: R$ 89,774.2, 06/01/2011 –05/31/2012.

8. *Análise Bayesiana de modelos Tobit usando a distribuição t de Student.* Research Fellowship. FAPESP – Process # 2011/07978-0. Total Award Amount: R$ 7239.96, 06/01/2011 –05/31/2012.

9. *Aplicações das distribuições de misturas da escala skew-normal em modelos de efeitos mistos.* Research Fellowship . FAPESP - Process # 2011/17400-6. Total Award Amount: R$ 33250, 12/01/2011 –11/30/2013.

10. *Aplicações das distribuições de misturas da escala skew-normal em modelos de análise fatorial.* FAPESP – Process # 2011/22063-9. Research Fellowship . Total Award Amount: R$ 157416.5 , 03/05/2012 –03/04/2016.

11. *Aplicações das distribuições de misturas da escala skew-normal em modelos de efeitos mistos.* Research Fellowship – level 1D. CNPq - Process # 305054/2011-2. Total Award Amount: R$ 105600, 03/05/2012 –03/04/2016.

12. *Modelos robustos de efeitos mistos usando distribuições de misturas da escala normal.* Funding for visiting professor Dipak Kumar Dey. FAPESP – Process # 2012/03590-0. Total Award Amount: R$ 9510.05, 07/29/2012 –08/17/2012.

13. *Modelos lineares e não lineares para dados censurados usando distribuições de misturas da escala skew-normal*. Research Fellowship. FAPESP – Process # 2012/18702-9. Total Award Amount: R$ 42051.24, 03/01/2013 –02/28/2015.

14. *Modelagem flexível de modelos longitudinais complexos usando distribuições skew-elípticas*. Funding for visiting professor Luis Mauricio Castro Cepero FAPESP – Process # 2012/19445-0. Total Award Amount: R$ 112420, 09/01/2013 – 08/31/2014.

15. *Modelos com erros nas variáveis para dados censurados usando distribuições de misturas da escala skew-normal*. Research Fellowship. FAPESP – Process # 2013/21468-0. Total Award Amount: R$ 102736.17, 05/01/2014 –10/31/2015.

16. *Regressão e series temporais em modelamento de dados incompletos. Funding for postdoc-Sandwich student*.   FAPESP – Process # 2014/13994-7. Total Award Amount: R$ 102736.17, 10/01/2014 –12/31/2014. Total Award Amount: R$ 55172.84, 05/01/2014 –10/31/2015.

17. *Estimação e diagnóstico em modelos de efeitos mistos para dados censurados usando misturas da escala skew-normal*. Research Fellowship. FAPESP - Process # 2014/02938-9. Total Award Amount: R$ 22903.33, 05/01/2014 –06/30/2015.

18. Organization of International Events. XIV Regression School of Regression Model – UNICAMP. CNPq – Process # 466294/2014-0. Total Award Amount: R$ 28500, 03/01/2015 –02/28/2016.

19. *Estimação em Modelos de Efeitos Mistos para Respostas Censuradas usando as Distribuições de Misturas da Escala Normal*. Research Fellowship. FAPESP – Process # 2015/05385-3. Total Award Amount: R$ 46020, 07/15/2015 –01/14/2016.

20. *Estimação Robusta em Modelos Espaciais para Dados Censurados.* Research Fellowship. FAPESP – Process # 2015/17110-9. Total Award Amount: R$ 139860.71, 03/01/2016 –02/28/2019.

21. Organization of International Events. IV Workshop in Survival Analysis and Applications (IV WASA) – UFMG-2015. FAPESP – Process # 2015/18263-3. Total Award Amount: R$ 139860.71, 03/01/2016 –02/28/2019. Total Award Amount: R$ 15476, 11/30/2015 –12/02/2015.

22. *Modelagem Flexível em Regressão para Dados com Censuras*. Funding for visiting professor Celso Romulo Barbosa Cabral. FAPESP – Process # 2015/20922. Total Award Amount: R$ 147236.40, 07/01/2016 –06/30/2017.

23. *Estimacão Robusta em Modelos de Regressão para Dados Censurados*. Research Fellowship - Level 1C: CNPq - Process # 306334/2015. Total Award Amount: R$ 115200, 03/01/2016 –02/28/2020.

24. *Modelos semi-paramétricos de efeitos mistos com respostas múltiplas censuradas sob a classe de distribuições misturas de escala normal*. Funding for visiting

professor Victor Hugo Lachos Davila.   FAPESP – Process # 2018/05013-7. 06/25/2018 –08/24/2018

25. Star Up. University of Connecticut. August 2017-August 2020. US$ 25000.00.

26. Serves as a Co-PI on a research training grant from The Travelers Companies for "Modeling and Analysis of Large Insurance Claim and Occurrence Data: A Partnership Between UConn and Travelers." $760,000.00 (2019 - Actual)

27. CLAS Summer 2022 funding initiative. Linear Mixed Models for Complex Longitudinal Data. 05/23/2022-09/01/2022. $35,000.00

28. CLAS Summer 2023 funding initiative. Lasso Regularization for High-Dimensional Censored Linear Mixed Models. 05/23/2023-09/01/2023. $34,494.00

29. Research Excellence Program 2023. Robust Mixed-Effect Models. Data. 09/01/2023-08/31/2024. $24,906.29

30. Scholarship Facilitation Fund (SFF). Lasso Regularization for High-Dimensional Censored Linear Mixed Models. 07/01/2023-08/31/2024. $2000.00

INVITED SPEAKER AND SHORT COURSES

1. Skew-normal/independent regression models: A Bayesian approach. 9o. Encontro Brasileiro de Estatistica Bayesiana EBEB (ISBRA). Maresias-Brazil, Feb-2008. [Invited talk]**.**

2. Scale mixtures of skew-normal distribution with applications in regression models. 18o SINAPE, July 2008, Aguas de São Pedro, São Paulo- Brazil [Invited talk].

3. Approximate inferences for skew-normal independent nonlinear mixed effects models. IV skew workshop. *Pontifícia Universidade Católica de Chile*, Santiago, Chile, 2011 [Invited talk].

4. Linear mixed models and their extensions. *II Encuentro Nacional de Matemáticas e Estadística*, U*niversidad de Ibagué*, Colombia, 2012 [Invited talk]**.**

5. Likelihood-based inference for mixed-effects models with censored response using the multivariate-t Distribution". *Departamento de Estadística, Universidad de Concepción,* Chile, 2012 [Invited colloquium].

6. Multivariate measurement error models using finite mixtures of skew-Student t distributions". *5th International Conference of the ERCIM WG on COMPUTING & STATISTICS (ERCIM 2012),* Oviedo – Spain, 2012 [Invited talk].

7. Bayesian mixture modeling of censored partially linear models. *II Jornada Internacional de Probabilidad e Estadistica (JIPE-II)*, Lima – Peru, 2012 [Invited talk].

8. Likelihood-based Inference for Mixed-Effects Models with Censored Respons Using the Multivariate-t Distribution". 2o Colóquio de Matemática do Sudeste, January 2013, São Carlos, SP, Brazil [Invited talk].

9. Análise de dados censurados sob distribuições simétricas com aplicações no R. 3o Workshop em Análise de Sobrevivência e Aplicações (WASA-2013), November 2013, Campinas State Univeristy, Campinas, SP, Brazil. [Invited short course].

10. Augmented mixed beta regression models for periodontal proportion data. Departamento de Estadística, Universidad de Concepción, Chile, 2013 [Invited colloquium].

11. Bayesian inference in mixed effects models for censored data with applications to HIV studies. Department of Applied Mathematics, Institute of Statistics. National Chung Hsing University, Taichung – Taiwan, 2013 [Invited colloquium].

12. *Modelos Não Lineares Assimétricos".* XIII Escola de Modelos de Regressão-EMR, de 02/24/2013 a 02/24/2013, São Sebastião, SP, Brazil. [Invited short course]**.**

13. Likelihood-based inference for mixed-effects models with censored response using the multivariate-t distribution. Department of Statistics, Graduate Institute of Statistics and Actuarial Science, Feng Chia University, Taichung – Taiwan, 2013 [Invited talk].

14. "Likelihood-based Inference for mixed-effects models with censored response using the multivariate-t distribution, *Joint Statistical Meeting* (JSM-2013) . Montreal – Canada. 2013 [Invited talk].

15. Censored mixed effects models with censored responses using heavy tails distributions. *6th International Conference of the ERCIM WG on COMPUTING & STATISTICS (ERCIM-2013),* London – UK, 2013 [Invited talk]

16. Likelihood-based inference for mixed-effects models with censored response using the multivariate-t distribution. *The Ninth ICSA International Conference: Challenges of Statistical Methods for Interdisciplinary Research and Big Data***.** Hong Kong , 2013 [Invited talk].

17. Robust mixture regression modeling based on scale mixtures of skew-normal distributions. *II Workshop on Model-Based Clustering and Classification (MBC2-2014)*. Catania-Italy, 2014 [Invited talk].

18. Likelihood-based Inference for mixed-effects models with censored response using the multivariate-t distribution. XXI Simpósio Nacional de Probabilidade e Estatística (SINAPE), July 2014, Hotel Praiamar, Ponta Negra, Natal-RN, BRAZIL. [Invited talk]**.**

19. Análisis de datos censurados sobre distribuciones simétricas con aplicaciones en R. XI *Congreso Latinoamericano de Sociedades de Estadística* (CLATSE-XI), La Serena – Chile, 2014 [Invited short course]**.**

20. Misturas Finitas de Distribuições Assimétricas. XIV Escola de Modelos de Regressão- EMR**,** Maresias, Sao Paulo-Brazil [Invited short course]**.**

21. Quantile regression for mixed-effects models with censored responses. ICSA/Graybill *Joint Statistical Meeting* (2015). COLORADO-USA 2015 [Invited talk].

22. Bayesian analysis of augmented mixed beta regression models for periodontal proportion data. 60th ISI World Statistics Congress (WSC), Rio de Janeiro-Brazil, 2015. [Invited talk]

23. Likelihood-based inference for mixed-effects models with censored response using the multivariate-t distribution. Department of Statistics, University of Southampton, Southampton - UK, December 2015 [Invited colloquium].

24. Heavy-tails censored regression models: A likelihood based perspective". 8th International Conference of the ERCIM WG on COMPUTING & STATISTICS (ERCIM-2015), London – UK, December 2015 [Invited talk]

25. Análise de dados censurados sob distribuições simétricas com aplicações no R. 2o Encontro Goiano de Probabilidade e Estatística (ENGOPE-2015), November 2015, Universidade Federal de Goiás, Goiânia/GO - Brazil [Invited Short Course].

26. Likelihood-based Inference for Mixed-Effects Models with Censored Response Using the Multivariate-t Distribution. 2o Encontro Goiano de Probabilidade e Estatística (ENGOPE-2015),November 2015, Universidade Federal de Goiás, Goiânia/GO – Brazil [Invited talk – Keynote Speaker]

27. Heavy-tails nonlinear censored regression models: A likelihood based perspective. XXII Simpósio Nacional de Probabilidade e Estatística (SINAPE), July 2016, Porto Alegre, Brazil [Invited talk - Keynote Speaker]

28. Heavy-tails nonlinear censored regression models: A likelihood based perspective. 12th Congresso Latinoamericano de las Sociedades de Estadística (CLATSE-2016), Lambayeque – PERU, Oct 2016 [Invited talk – Keynote Speaker].

29. *Modelos de Regresión Cuantílica: Teoría y Aplicaciones "12th Congresso Latinoamericano de las Sociedades de Estadística (CLATSE-2016)*, Lambayeque – **PERU**, Oct 2016 [Invited Short Course].

30. Heavy-tails nonlinear censored regression models: A likelihood based perspective. Department of Statistics, University of Connecticut – USA, January 2017.

31. Finite mixture modeling of censored data using the multivariate Student-t

distribution. Department of Applied Mathematics, Institute of Statistics. National Chung Hsing University, Taichung – Taiwan, Dec 2017 [Invited colloquium].

32. Heavy-tails censored regression models: A likelihood based perspective. Department of Statistics, Graduate Institute of Statistics and Actuarial Science, Feng Chia University, Taichung – Taiwan, Dec 2017 [Invited colloquium].

33. Heavy-tails censored regression models: A likelihood based perspective. *1st International Conference on Econometrics and Statistics (EcoSta 2017)*, Hong Kong, Dec 2017 [Invited talk].

34. Robust Finite Mixture Modeling of Censored Data Using the Multivariate Student-t Distribution. Modern Modeling Methods Conference (MMM 2017). University of Connecticut – USA, May 2017 [Invited talk].

35. A Multivariate Student-t Regression Model with Measurement Errors for Censored Data. 2017 Conference on Lifetime Data Science (LIDA 2017). University of Connecticut – USA, May 2017 [Invited talk].

36. Linear regression models using finite mixtures of skew heavy-tailed Distributions. Flexible Statistical Models For a Skewed World of Data (Skew Workshop 2017). Pontificia Universidad Católica de Chile – Chile, October 2017 [Keynote speaker].

37. Robust Finite Mixture Modeling of Censored Data Using the Multivariate Student-t Distribution. 10th International Conference of the ERCIM WG on COMPUTING & STATISTICS (ERCIM-2017), London – UK, December 2017 [Invited talk].

38. Heavy-tailed longitudinal regression models for censored data: a robust parametric approach. Department of Biostatistics, Virginia Commonwealth University – Virginia-USA, April 2018. [Invited colloquium].

39. Heavy-tailed longitudinal regression models for censored data: a robust parametric approach. Department of Statistics, Universidad Nacional de Colombia – Colombia, May 2018. [Invited colloquium].

40. Heavy-tailed longitudinal regression models for censored data: a robust parametric approach. Modern Modeling Methods Conference (MMM 2018). University of Connecticut – USA , May 2018 [Invited talk].

41. Finite mixture modeling of censored data using the multivariate Student-t distribution. 2st International Conference on Econometrics and Statistics (EcoSta 2018). Hong Kong , June 2018 [Invited talk]..

42. Censored regression models for complex data. *Departamento de Estadística, Universidad Catolica de Santiago,* Chile, August 2018 [Invited colloquium]..

43. Finite Mixture of Skewed Distributions". Second International Conference in Stochastic Processes and Random Phenomena and Their Applications: In Tribute to

the 65th birthday of Professor Dipak K. Dey (CIPEFA-2018), Lima – Peru, October 2018 [Invited short course].

44. Mixed effects Model for Complex Data. Department of Statistics, UMASS/UCONN colloquium – USA, October 2018. [Invited colloquium].

45. Heavy-tailed longitudinal regression models for censored data: a robust parametric approach. Department of Statistics, University of Padua, Italy, Dec 2018 [Invited colloquium].

46. Autoregressive skew-normal/independent linear mixed models. 11th International Conference of the ERCIM WG on COMPUTING & STATISTICS (ERCIM-2018), Pisa – Italy, December 2018 [Invited talk].

47. Mixed effects Model for Complex Data. XVI Escola de Modelos de Regressão-EMR, Pirenópolis, GO– Brazil, March 2019 [Keynote speaker].

48. Finite mixture modeling of censored data using the multivariate skew-normal distribution. The Third International Conference on Econometrics and Statistics (EcoSta 2019), National Chung Hsing University, Taichung - Taiwan, June 2019. [Invited colloquium].

49. Finite mixture modeling of censored data using the multivariate skew-normal distribution. The 3rd International Conference on Statistical Distributions and Applications (ICOSDA 2019), Grand Rapids, MI - USA, October 2019. [Invited talk].

50. Mixed effects Model for Complex Data. VI Workshop em Analises de Sobrevivência e Aplicações-WASA, Piracicaba, SP– Brazil, November 2019 [Keynote speaker].

51. Likelihood-based Inference for Mixed-Effects Models with Censored Response Using Skew-Normal Distribution. 12th International Conference of the ERCIM WG on COMPUTING & STATISTICS (ERCIM-2019), London – UK, December 2019 [invited talk].

52. Likelihood-based Inference for Mixed-Effects Models with Censored Response Using Skew-Normal Distribution", The 11th ICSA International Conference: Innovation with Statistics and Data Science. Hangzhou-China, December 2019 [Invited talk].

53. Mixed Effects Models for Complex Data. *V Jornada Peruana-Internacional de Investigación en Ingeniería*. Trujillo-Peru, January 2020 [Invited talk].

54. Finite mixture modeling of censored data with skew-normal distribution. Department of Statistics, Federal University of Pernambuco, Brazil, June 2021 [Keynote speaker]

55. Heavy-tailed longitudinal regression models for censored data: A robust parametric approach. Invited talk at *Coloquio Virtual pre-Congreso Científico Bicentenario por la Independencia del Perú (CCBIPerú2021), Cuzco, Peru, July 2021, Coloquio de Matemáticas.* [Invited talk]

56. Recent advances in asymmetric linear mixed models. Invited talk at the 29th Congreso de Matematica Capricornio (COMCA-2021), Chile, July 2021. [Invited talk]

57. Invited colloquium virtual lecture at the Department of Statistics, *Universidad Nacional de Trujillo*, Peru, October 2021.

58. Invited talk Virtual ISI World Statistics Congress 2021- ISI Mahalanobis International Award - Session in honour of Prof. Heleno Bolfarine, July 2021. [Invited talk]

59. skewlmm: An R Package for fitting skewed and heavy-tailed linear mixed models. 24th International Conference on Computational Statistics (COMPSTAT 2022). Bologna, Italy, August 2022 [Invited talk].

60. Modeling Longitudinal Data using Robust Mixed Models in R. 24th SINAPE: Simposio Nacional de Probabilidade e Estatística (SINAPE 2022). Gramados, Brazil, July 2022 [Short-Course].

61. Lasso regularization for censored regression and high dimensional predictors. 66th RBRAS- International Biometric Society. Florianopolis, Santa Catarina - Brazil, November-2022 [Keynote speaker].

62. Lasso regularization for high dimensional linear mixed models. 67th RBRAS- International Biometric Society. Londrina, Parana - Brazil, July-2023 [Invited speaker].

63. Pushing the Boundary of Data Science through Statistical Modeling and Inference: A Conference in Honor of Prof. Dipak Dey. Blacksburg, VA, July 13-14, 2023 [Invited talk].

64. Lasso regularization for high dimensional linear mixed models. 64th ISI World Statistics Congress (WSC), Ottawa-Canada, July-2023. [Invited talk]

65. Heckman selection-t model: Parameter estimation via the EM-algorithm. A New Era of Statistical Science: Conference to Honor Prof. Dipak Dey's 70th Anniversary, Belo-Horizonte-Brazil, August-2023 [Keynote speaker].

66. Lasso regularization for censored regression and high dimensional predictors. Departamento de Estadística, Universidad Catolica de Santiago, Chile, June 2023 [Invited colloquium].

67. The use of the EM algorithm for regularization problems in high-dimensional linear mixed-effects models" Department of Applied Mathematics, Institute of Statistics. National Chung Hsing University, Taichung, Taiwan – September, 2023 [Invited colloquium].

68. Heckman Selection-t models". Department of Statistics, National Cheng Kung University, Tainan, Taiwan – October, 2023. [Invited colloquium].

69. Finite mixture modeling of censored data using the multivariate Student-t distribution. Department of Economics and Business, University of Catania, Catania, Italy – October 2023. [Invited colloquium].

70. Modelling informative interval censoring mechanism in regression models with Student's-t distribution. I Workshop on Applied Statistics and Stochastic Processes (WASSP I) organized by the Centro de Ciencias Exatas e da Natureza (CCEN) - Federal University of Pernambuco, Recife, PE, Brazil from Nov 29 - Dec 1st, 2023 [**Keynote speaker**].

71. On matrix-variate normal distribution for interval-censored or missing data. 10th Workshop on Probabilistic and Statistical Methods - WPSM 2024, held in São Carlos, SP, Brazil, on February 21 to 23, 2024. [**Keynote speaker**].

72. Bayesian scale mixture of normal censored linear mixed models with within-subject serial dependence. 68th RBRAS - International Biometric Society. Piracicaba, São Paulo - Brazil, June-2024 [**Keynote speaker**]

73. On matrix-variate normal distribution for interval-censored or missing data. Second International Conference for Statistics and Data Science. Hosted by Department of Statistics at National Chengchi University, the Institute of Statistics at NYCU, and the Taiwan Chapter of ICSA. Taipei-Taiwan, July 2024. [Invited speaker]

74. The use of the EM algorithm for regularization problems in high-dimensional regression models. 25º SINAPE - Simpósio Brasileiro de Probabilidade e Estatística. Fortaleza, Ceara - Brazil, August 04-09, 2024 [**Keynote speaker**]

75. On matrix-variate normal distribution for interval-censored or missing data. *Departamento de Estadística, Universidad Catolica de Santiago,* Santiago-Chile, November 26, 2024 [Invited colloquium].

TEACHING, ADVISING AND MENTORING

COURSES TAUGHT [Responsible for 100% of course]

Campinas State University (Unicamp) - Brazil

Undergraduate courses

1. Probability
2. Basic Statistics
3. Statistics for Experimentalists
4. Quality Control
5. Econometrics
6. Introduction to Probability Models
7. Time Series

8. Generalized Linear Models
9. Inference
10. Computational Methods in Statistics
11. Scientific Methodology

Graduate courses

12. Linear Models
13. Generalized Linear Models
14. Advanced Inference
15. Computational Methods in Statistics
16. Asymptotic Theory

University of Connecticut (UConn)

Graduate courses

17. Mathematical Statistics I
18. Mathematical Statistics II
19. Advanced Inference: Inference II
20. Statistical Computing (Fall - 2024)

Undergraduate courses

20. Introduction to Statistics II
21. Intro to Mathematical Stats I
22. Intro to Mathematical Stats II
23. Probability Models for Engineers (Spring - 2025)

GRADUATE STUDENT SUPERVISION

Master Student Supervised

1. Alejandro Monzon Montoya**.** Campinas State University (MS thesis, 2009). Zero Inflated Models for Counts Data. CAPES- Brazil.

2. Rodrigo Marreiro Basso**.** Campinas State University (MS thesis, 2009). Finite Mixtures Using Scale Mixtures of Skew-Normal Distributions. CAPES –Brazil.

3. Rignaldo Rodrigues Carvalho. Campinas State University (MS thesis, 2010). Local Influence Analysis of Measurement Error Model with Scale Mixtures of Skew-Normal Distributions. CAPES -Brazil.

4. Aldo W. Medina Garay**.** Campinas State University (MS thesis, 2010).

Nonlinear Models with Scale Mixtures of Skew-Normal Distributions. FAPESP – Brazil.

5. Larissa Avila Matos. Campinas State University (MS thesis, 2012). Linear Mixed Effects Models for Censored Data with Normal and Student-t Distributions. CAPES - Brazil.

6. Monique Bettio Massuia. Campinas State University (MS thesis, 2015). Censored Regression Models. FAPESP - Brazil.

7. Christian Eduardo Galarza Morales. Campinas State University (**MS thesis**, 2015). Quantile Regression for Mixed Effects Models. CAPES - Brazil.

8. Edgar Javier Lopez Moreno. Campinas State University (MS thesis, 2016). Finite Mixtures of Censored regression models. CAPES – Brazil. (with Celso Cabral)

9. Fernanda Lang Schumacher. Campinas State University (MS thesis, 2016). Censored Autoregressive Models. CAPES – Brazil. (with Filidor Vilca)

10. Thalita do Bem Mattos. Campinas State University (MS thesis, 2016). *Censored Regression Models with Scale Mixtures of Skew-Normal Distributions*. CAPES – Brazil.

11. Thais Silva Barbosa. Campinas State University (MS thesis, 2016). Spatial Models for Censored Data. CAPES – Brazil.

12. Jose Alejandro Ordoñez. Campinas State University (MS thesis, 2017). Spatial models for censored data. CAPES - Brazil. (with Celso Cabral)

13. Marcela Nuñez Lemus. Campinas State University. (MS thesis, 2018). Semiparametric regression models for censored data. CAPES - Brazil. (with Larissa Avila Matos)

14. Rommy Camasca Olivari. Federal University of Pernambuco. (MS thesis, 2019). Autoregressive Linear Mixed Effects Models for Censored Data. CAPES - Brazil. (with Aldo Medina)

15. Katherine Andreina Loor Valeriano. Campinas State University. (MS thesis, 2019). Spatio-Temporal Models for Censored Data. CAPES - Brazil. (with Larissa Avila Matos)

16. Maria Yessenia Alvarez Gil. Federal University of Pernambuco (MS thesis, 2024). Interval Censored Regression Models with Scale Mixtures of Skew-Normal Distributions. (with Aldo W. Medina Garay)

PhD Student Supervised

1. Lourdes Contreras Montenegro: University of Sao Paulo (PhD, 2006). Influence Diagnostics in Skew-Normal Linear Mixed Models (with Heleno Bolfarine).
Current Position: Associate professor in the Dept. of Statistics, Universidad Federal de Belo Horizonte, Brazil.

2. Clecio da Silva Ferreira. University of Sao Paulo (PhD, 2008). Inference and diagnostics in asymmetric models (with Heleno Bolfarine). CAPES-Brazil.
Current Position: Associate professor in the Dept. of Statistics, Universidad Federal de Juiz de Fora, Brazil.

3. Camila Borelli Zeller. Campinas State University (PhD, 2009). Influence Diagnostics in Linear Models with Scale Mixtures of Skew-Normal Distribution (with Filidor Vilca Labra). CAPES-Brazil.
Current Position: Associate professor in the Dept. of Statistics, Universidad Federal de Juiz de Fora, Brazil.

4. Betsabé Grimalda Blas. University of Sao Paulo (PhD, 2010). Asymmetrical Measurement Errors Models (with Heleno Bolfarine). CAPES – Brazil.
Current Position: Associate professor in the Dept. of Statistics, Universidade Federal de Pernambuco, Brazil.

5. Aldo William Medina Garay: Campinas State University (PhD, 2014). Censored Regression Models with Heavy Tails Distributions (with Heleno Bolfarine). CNPq-Brazil.
Current Position: Assistant professor in the Dept. of Statistics, Universidade Federal de Pernambuco, Brazil.

6. Denise Reis Costa. Campinas State University (PhD, 2014). *Estimação Robusta em modelos de Variáveis Latentes para dados Censurados.* CAPES-Brazil.
Current Position: Postdoctoral Researcher, CEMO, University of Oslo, Norway.

7. Diana Milena Galvis Soto. Campinas State University (PhD, 2015). Zero-One augmented regression Models for Proportional Data. CAPES – Brazil.
Current Position: Assistant professor in the Dept. of Statistics, Universidad del Quindio, Colombia.

8. Isabel Cristina Gomes. Federal University of Minas Gerais (PhD, 2015). Influence and Diagnostics for Censored Regression Models. (with Lourdes Contreras). CAPES-Brazil.
Current position: Adjunt Professor, Faculdade de Ciências Médicas de Minas Gerais, Belo Horizonte - Brazil

9. Larissa Avila Matos. Campinas State University (PhD, 2016). Censored Regression Models for Mixed effects models. FAPESP – Brazil.
   Current Position: Associate professor in the Dept. of Statistics, Universidade Estadual de Campinas, Brazil.

10. José Alejandro Gonzalez Campos. Campinas State University (PhD, 2016). Statistics and Fuzzy set Theory. CAPES- Brazil.
    Current Position: Assistant professor in the Dept. of Statistics, Universidad de Playa Ancha, Valparaiso-Chile.

11. Luis Enrique Benites Sanchez. São Paulo State University (PhD, 2018). Finite Mixtures of Regression Models (with Heleno Bolfarine) CNPq- Brazil.
    Current Position: Assistant professor in the Dept. of Statistics, Pontificia Universidad Católica del Perú, Peru.

12. Tairan Ye. University of Connecticut. (PhD, 2019). On Generalization of Tweedie Distribution: a Bayesian Perspective (with Dipak Dey)
    Current Position: Data scientist at Liberty Mutual Group, Boston.

13. Christian E. Galarza Morales. Campinas State University. (PhD, 2020). Moments of Multivariate Truncated Distributions (with Larissa Avila Matos) FAPESP- Brazil.
    Current Position: Assistant professor in the Dept. of Statistics, *Escuela Politecnica del Litoral*, Ecuador.

14. Thalita do Bem Matos. Campinas State University. (PhD 2020). Robust Mixed Effect Models (with Larissa Avila Matos). CAPES-Brazil.
    Current Position: Data scientist at C&C Brazil and Adjunct professor at University of Fortaleza (UNIFOR), Fortaleza - Brazil.

15. Jose Alejandro Ordoñez. Campinas State University. (PhD 2021). On Default Priors for Regression Models (with Larissa Avila Matos). CAPES-Brazil.
    Current Position: Postdoctoral Researcher, Department of Statistics, PUC-Santiago, Chile.

16. Fernanda Lang Schumacher. Campinas State University. (PhD 2021). Robust linear mixed models for longitudinal data using skewed and heavy-tailed distributions (with Larissa Avila Matos). CNPq-Brazil.
    Current Position: Assistant professor in the Dept. of Biostatistics, Ohio State University, USA.

17. Jiwon Park. University of Connecticut. (PhD 2023). Finite mixture of regression models using skewed and heavy-tailed distributions (with Dipak Dey).
    Current Position: Dept. of Biostatistics, Johns Hopkins University, USA.

18. Brisilda Ndreka. University of Connecticut. (PhD 2023). A Bayesian

Framework for Social Network Analysis and Associated Models (with Dipak Dey).
Current Position: Dept. of Statistics, University of Statistics, USA.

Post doctor Supervised

1. Carlos Diniz. University of Connecticut. Matrix Variate Distributions (Post-doc, 2025-2026).

2. Lizandra Castillo Fabio. University of Connecticut. Zero-inflated regression models (Post-doc, 2024-2025).

3. Jalmar Carrasco. University of Connecticut. Regularized methods for binary response (Post-doc, 2024-2025).

4. Marcos Santos Oliveira. University of Connecticut. Regularization in Censored Linear Mixed Models (Post-doc, 2022-2023).

5. Daniela Ramires de Oliveira. University of Connecticut. Applied Statistical Modeling in genetics (Post-doc, 2022-2023).

6. Larisa Avila Matos. Campinas State University. (Post-doc, 2016-2017). Mixed effects models for censored data. FAPESP-Brazil.

7. Aldo William Medina Garay: Campinas State University (Post-doc, 2014-2015). Measurement Error Models for Censored Data. FAPESP – Brazil.

8. Celso Romulo Barbosa Cabral. Campinas State University (Post-doc 2014-2016). Finite Mixture of Skew distributions. CNPq – Brazil.

9. Javier Ferrua Vivanco. Campinas State University (Post-doc, 2013). *Modelos de regressão para dados censurados usando distribuições de misturas da escala skew-normal.* CNPq-Brazil.

10. Marcos Oliveira Prates. Campinas State University (Post-doc, 2011-2012). Skew-normal/independent random fields. FAPESP-Brazil.

Visiting Professors Supervised

1. Luis Mauricio Castro Cepero from University of Concepcion, Chile (2014-2015). *Modelagem flexível de modelos longitudinais complexos usando distribuições skew-elípticas.* FAPESP-Brazil.

2. Jorge Luis Bazan Guzmán from Pontifical Catholic University of Peru, Peru (2011-2012). Bayesian Analysis for Data in the Unit Interval. CAPES/CNPq –

Brazil.

3. Jacek Leskow from Wroclaw University of Technology, Poland (2014). *Métodos computacionais modernos em modelagem estocástica*. FAPESP-Brazil.

4. Celso Romulo Barbosa Cabral from Federal University of Manaus, Brazil (2015-2016). *Modelagem Flexível em Regressão para Dados com Censura*. CNPq – Brazil.

Ongoing supervision

1. Francisco Hildemar Calixto de Alencar. Campinas State University. PhD student (2016→present) (with Larissa Matos)

2. Kelin Zhong. University of Connecticut. PhD student (2021→present)

3. Dashun Liu. University of Connecticut. PhD student (2022→present).

4. Heeju Lim. University of Connecticut. PhD student (2023→present)

5. Fusheng Yang. University of Connecticut. PhD student (2022→present).

6. Maira Soalheiro. Federal University of Minas Gerais. PhD Student (2023 →present). Geostatistical Models for Ansotropy. (with Marcos Prates).

7. Maria Yessenia Alvarez Gil. Federal University of Pernambuco. Master Student (2024 → present) (with Aldo W. Medina Garay)

UNDERGRADUATE STUDENT SUPERVISION

1. Monique Bettio Massuia**.** University of Campinas (Monography, 2012). *Análise Bayesiana de Modelos Tobit Usando a Distribuição t-Student.* FAPESP-Brazil.

2. Taisa Angolini. University of Campinas (Monography, 2008). *Modelos com Erros de Medida Usando a Distribuição t-Student.* CNPq- Brazil.

PUBLICATIONS

PAPERS PUBLISHED IN PEER REVIEWED JOURNALS

The underline indicates a student (Master or PhD) co-author

1 Arellano-Valle, R. B., Bolfarine H. and **Lachos, V. H.** (2005). Skew-normal linear mixed models. *Journal of Data Science*, 3, 415-438.

2   Arellano-Valle, R. B., Ozan S., Bolfarine, H. and **Lachos**, **V. H.** (2005). Skew-normal measurement error models. *Journal of Multivariate Analysis*, 96, 265-281.

3   Bolfarine, H. and **Lachos, V. H.** (2006*)*. Skew-binary regression with measurement errors. *Statistics (A Journal of Theoretical and Applied Statistics), 40, 485-494.*

4   **Lachos, V. H.,** Vilca-Labra, F.E. and Gálea-Rojas, M. (2007*)*. Influence diagnostics for Grubbs's mode*l. Statistical Papers*, *48, 419-436*.

5   Bolfarine, H. and **Lachos, V.H .** (2007*)*. Skew-probit measurement error model*.* S*tatistical Methodology, 4, 1-12.*

6   **Lachos, V. H**., Bolfarine, H. and Arellano-Valle R. B. and <u>Montenegro, L. C</u>. (2007). Likelihood based inference for multivariate skew-normal regression models. *Communication in Statistics – Theory and Methods*, 36, 1769-1786.

7   Arellano-Valle R. B., Bolfarine H. and **Lachos, V. H.** (2007). Bayesian inference for skew-normal linear mixed models. *Journal of Applied Statistics,* 34, 663-682*.*

8   Bolfarine, H., <u>Montenegro, L. C</u>. and **Lachos, V. H**. (2007). Influence diagnostics for skew-normal linear mixed models. *Sankhya, Series B,* 69, 648-670.

9   **Lachos**, **V. H**. (2008). Scale mixtures of skew-normal distribution with applications in regression models. *Estadistica (Instituto Interamericano de Estadística)*, 60, 42-73.

10 Cancho, V. G., Aoki, R. and **Lachos**, **V. H.** (2008). Bayesian analysis for a skew extension of the multivariate null intercept measurement error model. *Journal of Applied Statistics*, 35, 1239-1251.

11 Ortega, E. M. , Cancho, V. G. and **Lachos, V. H**. (2008). Assessing influence in survival data with a cured fraction and covariates. *Statistics and Operations Research Transactions* (SORT), 32, 115-140.

12 **Lachos, V. H**., <u>Montenegro, L. C</u>. and Bolfarine, H. (2008). Inference and assessment of local influence in skew-normal null intercept measurement error models. *Journal of Statistical Computation and Simulation*, 78, 395-419.

13 Ortega, E. M., Cancho V. G. and **Lachos, V. H**. (2009). Generalized log-gamma mixture model for cure rate: estimation and sensitivity analysis. *Sankhya* (Indian Statistical Institute), Series B, 71, 1-29.

14 **Lachos, V. H**., Cancho, V .G., Vilca-Labra, F. E. and Aoki, R. (2009). Robust multivariate measurement error Model with skew-normal/independent distributions and Bayesian MCMC implementation. *Statistical Methodology*, 6, 527-541.

15 Ghosh, P., <u>Bayes, C. R</u>. and **Lachos, V. H**. (2009). A Robust bayesian approach to null intercept measurement error model with application to dental data. *Computational Statistics and Data Analysis*, 53, 1066-1079.

16 **Lachos, V. H**., Dey, K. D. and Cancho, V. G. (2009). Robust linear mixed models with skew-normal independent distributions from a Bayesian perspective. *Journal of Statistical Planning and Inference*, 139, 4098-4110.

17 <u>Montenegro, L. C</u>., Bolfarine, H. and **Lachos, V. H**. (2009). Influence diagnostics for a skew extension of the Grubb's model. *Communication in Statistics-Simulation and Computation*, 38, 667-681.

18 <u>Montenegro, L. C</u>, **Lachos, V. H**. and Bolfarine H. (2009). Local influence analysis of skew-normal linear mixed models. *Communication in Statistics- Theory and Methods*, 38, 484-496.

19 **Lachos, V.H**., Bolfarine H. and <u>Montenegro, L. C</u>. (2010). Inference for a skew extension of the Grubbs model. *Statistical Papers*, 51, 701-715.

20 Cancho, V. G., **Lachos, V.H**. and Ortega, E. M. (2010). A nonlinear model with skew-normal errors. *Statistical Papers*, 51, 547-558.

21 Cancho, V. G., Ortega, E. M. and **Lachos, V.H.** (2010). Skew-normal comparative calibration models. *Journal of Statistical Theory and Applications*, 9, 143-168.

22 **Lachos, V. H.**, Cancho, V. G. and Aoki, R. (2010). Bayesian analysis for skew-t multivariate null intercept measurement error model. *Statistical Papers,* 51,531-545.

23 Cancho, V. G., Dey, K. D., **Lachos, V. H.** and Andrade, M. (2010). Bayesian nonlinear regression models with scale mixtures of skew normal distributions: estimation and case influence diagnostics. *Computational Statistics and Data Analysis,* 55, 588-602.

24 <u>Basso, R</u>. M, **Lachos, V. H**, Cabral, C. R. B. and Ghosh, P. (2010) . Robust mixture modeling based on scale mixtures of skew-normal distributions. *Computational Statistics and Data Analysis*, 54, 2926-2941.

25 <u>Zeller, C. B.</u>, Vilca-Labra, F. E., **Lachos, V. H.** and Balakrishnan, N.(2010). Influence analyses of skew-normal/independent linear mixed models. *Computational Statistics and Data Analysis*, 54, 1266-1280.

26 Bandyopadhyay, D, **Lachos, V. H.**, Abanto-Valle, C. A. and Ghosh, P. (2010). Linear mixed models for skew-normal/independent bivariate responses with application to periodontal disease. *Statistics in Medicine,* 29, 2643–2655.

27 Abanto-Valle, C. A., Bandyopadhyay, D, **Lachos, V. H.** and <u>Enriquez, I.</u> (2010). Robust bayesian analysis of heavy-tailed stochastic volatility models using scale

mixtures of normal distributions. *Computational Statistics and Data Analysis*, 54, 2883-2898.

28 **Lachos, V. H.**, Bolfarine H., Vilca-Labra, F. E. and Ghosh, P. (2010). Robust multivariate measurement error models with scale mixtures of skew-normal distributions. *Statistics (A Journal of Theoretical and Applied Statistics)*, 44, 541-556.

29 **Lachos, V. H.**, Ghosh, P. and Arellano-Valle R. B. (2010). Likelihood based inference for skew-normal/independent linear mixed model. *Statistica Sinica*, 20, 303-322.

30 Vilca-Labra, F. E. Garibay, V.C. and Aoky R. and **Lachos, V. H.** (2011). Skew-normal distribution in multivariate null intercept measurement error model. *Brazilian Journal of Probability and Statistics,* 25, 145-170.

31 Garay, A. M., **Lachos, V. H**, and Abanto-Valle, C.A. (2011). Nonlinear regression models based on scale mixtures of skew-normal distributions. *Journal of the Korean Statistical Society*, 40, 115-124.

32 **Lachos, V. H.**, Angolini, T. and Abanto-Valle, C. A.(2011). On estimation and local influence analysis for measurement errors models under heavy-tailed distributions. *Statistical Papers*, 52, 567–590.

33 Ferreira, C. S., Bolfarine, H. and **Lachos, V. H.** (2011). Skew Scale Mixtures of Normal Distributions: Properties and Estimation. *Statistical Methodology,* 8, 154–171.

34 Abanto-Valle, C. A., Migon, H. and **Lachos, V. H.** (2011). Stochastic volatility in mean models with scale mixtures of normal distributions and correlated errors: A Bayesian approach. *Journal of Statistical Planning and Inference*, 141, 1875-1887.

35 Zeller, C. B., **Lachos, V. H** and Vilca-Labra, F. E. (2011). Local influence analysis for regression models with skew-normal independent distributions. *Journal of Applied Statistics*, 38, 343 – 368.

36 Garay, A. M., Hashimoto, E., Ortega, E. M., and **Lachos, V. H**. (2011). On estimation and influence diagnostics for zero-inflated negative binomial regression models. *Computational Statistics and Data Analysis*, 55, 1304-1318.

37 **Lachos, V. H.**, Bandyopadhyay D. and Dey D. K. (2011). Linear and non-linear mixed-effects models for censored HIV viral loads using normal /independent distributions. Biometrics, 55, 1304-1318.

38 **Lachos, V. H.,** Bandyopadhyay, D. and Garay, A.M. (2011). Heteroscedastic nonlinear regression models based on scale mixtures of skew normal distributions. *Statistics and Probability Letters*, 81, 1208-1217.

39 Abanto-Valle, C. A**., Lachos, V. H**. and Ghosh, P. (2012). A Bayesian term structure modeling using heavy-tailed distributions. *Applied Stochastic Models in Business and Industry,* 28, 430-447.

40 Prates, M. O., Dey, D. K, and **Lachos, V. H**. (2012). A dengue fever study in the state of Rio de Janeiro with the use of generalized skew-normal/independent spatial fields. *The Chilean Journal of Statistics,* 3, 33-45.

41 Zeller, C. B., Carvalho, R. R, and **Lachos, V. H.** (2012). On diagnostics for multivariate measurement error model with asymmetric heavy-tailed distributions. *Statistical Papers*, 53, 665-683.

42 Abanto-Valle, C. A., Migon, H. S. and **Lachos, V. H.** (2012). Stochastic volatility in mean models with heavy-tailed distributions. *Brazilian Journal of Probability and Statistics*, 26, 402–422.

43 Bandyopadhyay, D., **Lachos, V.H.**, Castro, L.M.C and Dey, D. K. (2012). Skew normal independent linear mixed models for censored responses with applications to HIV viral loads. *Biometrical Journal*, 405-425, 2012.

44 **Lachos, V. H.**, Garay, A. M. , Ortega, E. M. and Vilca, L. F. (2012). Estimation and diagnostics for heteroscedastic nonlinear regression models based on scale mixtures of skew-normal distributions. *Journal of Statistical Planning and Inference*, 142, 2149-2165.

45 Barbosa-Cabral, C. R., **Lachos, V. H**. and Madruga, R. M. (2012). Bayesian skew-normal independent linear mixed models with heterogeneity in the random effects population. *Journal of Statistical Planning and Inference*, 212,181-200.

46 Cabral, C. R., **Lachos, V. H**., and Prates, M. (2012). Robust multivariate mixture modelling using scale mixtures of skew-normal distributions. *Computational Statistics and Data Analysis*, 56, 226-246.

47 **Lachos, V. H.**, Cabral, C. R. and Abanto-Valle, C. A. (2012). A noniterative sampling Bayesian method for linear mixed models with normal independent distributions. *Journal of Applied Statistics.* 39, 531-549.

48 Ferreira, G.C., Castro, L. M., **Lachos, V. H.**, and Dias, R. (2013). Bayesian modeling of autoregressive partial linear models with scale mixture of normal errors. *Journal of Applied Statistics*, 40, 1796-1816.

49 **Lachos, V. H.**, Castro, L. M. and Dey, D.K. (2013). Bayesian inference in nonlinear mixed–effects models using normal independent distributions. *Computational Statistics and Data Analysis*, 64, 237–252.

50 <u>Matos, L. A.</u>, **Lachos, V.H.**, Balakrishnan, N. and Vilca-Labra, F.(2013). Influence diagnostics in linear and nonlinear mixed-effects models with censored data. *Computational Statistics and Data Analysis*, 57, 450-464.

51 <u>Matos, L. A., Prates, M. O.</u>, Chen, M-H. and **Lachos, V. H.** (2013). Likelihood based inference for linear and nonlinear mixed-effects models with censored response using the multivariate-t Distribution . *Statistica Sinica*, 23, 1299-1322.

52 <u>Blás, B.G.</u>, **Lachos, V. H.** and Bolfarine, H. (2013). Statistical analysis of controlled calibration model with replicates . *Journal of Statistical Computation and Simulation*, 83, 941-961.

53 <u>Prates, M. O.</u>, Cabral, M. O, and **Lachos, V. H.** (2013). Fitting finite mixture of scale mixture of skew-normal distributions . *Journal of Statistical Software*, 54, 1-20.

54 Ferreira, G., Castro, L. M., **Lachos, V. H**., and Dias, R. (2013). Bayesian modeling of autoregressive partial linear models with scale mixture of normal errors. *Journal of Applied Statistics*, 40, 1796-1816.

55 Castro, L. M., **Lachos, V. H.**, Ferreira, G. and Arellano-Valle, R. (2014). Partially linear censored regression models using heavy-tailed distributions: A Bayesian approach. *Statistical Methodology*, 18, 14-31.

56 Cabral, C. R., **Lachos, V. H.**, and <u>Zeller, C.B</u>. (2014). Multivariate measurement error models using finite mixtures of skew-Student t distributions. *Journal of Multivariate Analysis*, 124, 179-198.

57 <u>Galvis, D. M</u>, Bandyopadhyay, D. and **Lachos, V. H.** (2014). Bayesian modeling of mixed zero-one-augmented beta regression models, with applications to periodontology. *Statistics in Medicine,* 33, 3759-3771.

58 <u>Garay, A. M.</u>, **Lachos, V. H.**, Vilca, L. F. and Ortega, E. M. (2014). Statistical diagnostics for nonlinear regression models based on scale mixtures of skew-normal distributions. *Journal of Statistical Computation and Simulation*, 84, 1761-1778.

59 <u>Costa, D. R</u>, **Lachos, V. H.,** Bazan, J. L. and Azevedo, C. L. N. (2014) Estimation methods for multivariate Tobit confirmatory factor analysis. *Computational Statistics and Data* Analysis, 79, 248 - 260.

60 <u>Prates, M.O.</u>, <u>Costa, D. R. and</u> **Lachos, V. H.** (2014). Generalized linear mixed models for correlated binary data with T-link. *Statistics and Computing*, 24,1111-1123.

61 <u>Zeller, C. B.</u>, **Lachos, V. H.**, Vilca, L. F. (2014). On estimation and influence diagnostics for the Grubbs' model with asymmetric heavy-tailed Distributions. *Statistical Papers*, 55, 671-690.

62 Ferreira, C. S, **Lachos, V. H.**, and Bolfarine, H. (2014). Inference and diagnostics in skew scale mixtures of normal regression models. *Journal of Statistical Computation and Simulation*, 85, 517-537.

63 Abanto-Valle, C. A., **Lachos, V. H**, and Dey, D.(2015)*. Bayesian estimation of a skew-t stochastic volatility model. Methodology and Computing in Applied Probability,* 17, 721-738.

64 Massuia, M. B., Cabral, M. O, Matos, L.A. and **Lachos, V.H**. (2015). Influence diagnostics for Student-t censored linear regression models . Accepted for publication in *Statistics- A Journal of Theoretical and Applied Statistics*, 49, 1074–1094.

65 **Lachos, V. H.**, Azevedo, C. L. N, Abanto-Valle, C. A. and Chen, M-H (2015). Quantile regression for censored mixed-effects models with applications to HIV Studies. *Statistics and its Interface*, 8, 203-215.

66 Costa, D. R., Castro, L. M., Prates, M. and **Lachos, V. H.** (2015). Likelihood-based inference for Tobit confirmatory factor analysis using the multivariate t-distribution. *Statistics and Computing, 25, 1163-1183.*

67 Bandyopadhyay, D. Castro, L.M., **Lachos, V. H.** and Pinheiro, H. P. (2015) Joint nonlinear mixed-effects models and diagnostics for censored HIV viral loads with CD4 measurement error. *Journal of Agricultural, Biological, and Environmental Statistics*, 20, 121-139.

68 Garay, A. M., **Lachos, V. H**, and Bolfarine, H. (2015) Bayesian zero-inflated negative binomial regression models: Estimation and case influence diagnostics. *Journal of Applied Statistics*, 42, 1148-1165.

69 Matos, L. A., Bandyopadhyay, D., Castro, L. M. and **Lachos, V. H.** (2015). Influence diagnostics in mixed-effects models with censored data using the multivariate-t distribution. *Journal of Multivariate Analysis*, 141, 104–117.

70 Garay, A. W., **Lachos, V. H.**, Bolfarine, H. and Cabral, C.R. (2015). Bayesian analysis of censored linear regression models with scale mixtures of normal distributions. *Journal of Applied Statistics*, 42, 2694-2714.

71 Motta, M. R. , Galvis, D. M., **Lachos, V. H**, and others (2015) A mixed-effect model for positive responses augmented by zeros. *Statistics in Medicine*, 34, 1761–1778.

72 Galarza, C.M. and **V. H. Lachos** (2015). Likelihood based inference for quantile regression nonlinear mixed effects models*. Estadistica (Instituto Interamericano de Estadística), 67, 33-74.*

73 Garay, A. W, **Lachos, V. H.** and Lin, Tsung-I (2016). Nonlinear censored

regression models with scale mixtures of normal distributions. *Statistics and its Interface*, 9, 281 – 293.

74 Gonzalez, J. A. C., **Lachos, V. H.**, Castro, L.M. and Patriota, A. (2016) *A Confidence Set Analysis for Observed Samples: A Fuzzy Set Approach*. *Entropy, 18, 211-220*.

75 Zeller, C. B, **Lachos, V. H.** and Cabral, C.R. (2016). Robust mixture regression modeling based on scale mixtures of skew-normal distributions. *Test*, 25, 375-396.

76 Ferreira, C. S., **Lachos, V. H**. and Bolfarine, H. (2016). Multivariate skew scale mixtures of normal distributions. *Advances in Statistical Analysis*. 100, 421-444.

77 Blás, B.G., **Lachos, V. H**. and Bolfarine, H. (2016). *Heavy tailed calibration model with Berkson measurement errors for replicated data*. *Chemometrics and Intelligent Laboratory Systems, 156, 21-35*.

78 Matos, L. A., **Lachos, V. H**. and Castro, L.M. (2016). Censored mixed-effects models for irregularly observed repeated measures with applications to HIV viral loads, *TEST*, 25, 627-653.

79 Ferreira C.S. and **Lachos, V. H** .(2016). Nonlinear regression models under skew scale mixtures of normal distributions. *Statistical Methodology, 33, 131–146.*

80 Garay, A. W, **Lachos, V. H.**, Bolfarine, H. and Cabral, C.R. (2017). Linear censored regression models with scale mixtures of normal distributions. *Statistical Papers, 58, 247–278.*

81 Galarza, C. M., Bandyopadhyay, D. and **Lachos, V. H.** (2017). *Quantile regression for linear mixed models: A stochastic approximation EM approach*. *Statistics and its Interface, 10, 471-482.*

82 Massuia, M. B., Garay*, A. W., **Lachos, V. H.** and Cabral, C. R. (2017). *Bayesian analysis of censored linear regression models with scale mixtures of skew-normal distributions* . *Statistics and its Interface, 10, 425-439.*

83 Garay, A. W., Castro, L.M., Leskow, L. and **Lachos, V. H.** (2017) Censored linear regression models for irregularly observed longitudinal data using the multivariate-t distribution. *Statistical Methods in Medical Research,* 26, 542–566.

84 Galvis, D. M., Bandyopadhyay, D. and **Lachos, V. H.** (2017). Augmented mixed models for clustered proportion data. *Statistical Methods in Medical Research,* 26, 880–897.

85 Galarza, C. M., **Lachos, V. H.** Cabral, C. R., and Castro L. M. (2017). *Robust Quantile Regression using a Generalized Class of Skewed Distributions*. *STAT*, 6, 113-130.

86 **Lachos, V. H.**, Cancho, V. G., Neto, F. L. and Dey, D. K. (2017). Bayesian analysis of scale mixtures Log-Birnbaum-Saunders regression models with censored data. *Journal of Statistical Computation and Simulation*, 87, 2002-2022.

87 **Lachos, V. H**., Moreno, E. L., Kun, C. And Barbosa-Cabral, C.R. (2017). Finite mixture modeling of censored data using the multivariate Student-t distribution. *Journal of Multivariate Analysis, 159, 151-167.*

88 *Lachos, V. H., Larissa, A. M., Barbosa, T., Garay, A. W. and Dey, D. K. (2017).* Influence Diagnostics in Spatial Models with Censored Response. *Environmetrics, 28, 1-21.*

89 Schumacher, L. F., **Lachos, V. H**. and Dey, D. K. (2017). Censored regression models with autoregressive errors: A likelihood-based perspective. *The Canadian Journal of Statistics, 45, 375*-392.

90 Ordoñez, J. A., **Lachos, V. H.,** Bandyopadhyay, D. and Cabral, C. R. B (2018). Geo-statistical estimation and prediction for censored responses. *Spatial Statistics*, 23, 109-123.

91 Wang, W.L. Lin, T.I. and **Lachos, V. H.** (2018). Extending multivariate-t linear mixed models for multiple longitudinal data with censored responses and heavy tails. *Statistical Methods in Medical Research*, 27, 48-64.

92 Schumacher, F. L., **Lachos, V. H.** and Vilca-Labra, F.E. (2018). Influence diagnostics for censored regression models with autoregressive errors. *Australian & New Zealand Journal of Statistics*, 60, 209-229.

93 Padilla, J.L., Azevedo, C. L. and **Lachos, V. H.** (2018). Multidimensional multiple group IRT models with skew normal latent trait distributions. *Journal of Multivariate Analysis, 167, 250-268.*

94 Matos, T. B., Garay, A. W. and **Lachos, V. H.** (2018). Likelihood based inference for censored linear regression models with scale mixtures of skew-normal distributions. *Journal of Applied of Statistics*, 45, 2039-2066.

95 Lin, T. I. **Lachos, V. H**. and Wang, W.L. (2018). Multivariate longitudinal data analysis with censored and intermittent missing responses. *Statistics in Medicine*, 37, 2822-2835.

96 Matos, L. A., **Lachos, V. H.** Cabral, C. R. B. and Castro, L. M. (2018). Multivariate measurement error models based on the t-distribution with censored responses. *Statistics: A Journal of Theoretical and Applied Statistics*, 52, 1395-1416.

97 **Lachos, V. H.,** Prates, M.O., Cabral, C. R. B. and Dey, D. K. (2019). Robust

regression modeling for censored data based on mixtures of student-t distributions. *Computational Statistics*, 34, 123–152.

98 Zeller, C. B., Cabral, C. R. B., **Lachos, V. H**. (2019). Finite mixture of regression models for censored data based on scale mixtures of normal distributions. *Advances in Data Analysis and Classification*, 13, 89–116.

99 **Lachos, V. H.,** Matos, L. A., Castro, L. M. and Chen, M-H. (2019). Flexible longitudinal linear mixed models for multiple censored responses data. *Statistics in Medicine*, 38, 1074-1102.

100 Castro, L.M., Wang, W. L., **Lachos, V. H**., Bayes, C.L. and Inacio, V. (2019). Bayesian semiparametric modeling for HIV longitudinal data with censoring and skewness. *Statistical Methods in Medical Research*, 28, 1457-1488.

101 Matos, L.A., Castro, LM., **Lachos, V. H.** and Lin, T.I. (2019). Heavy-tailed longitudinal regression models for censored data: a likelihood based perspective. *TEST*, 28, 844-878.

102 Wang, W. L., Castro, L. M. **Lachos, V. H.** and Lin, T. I. (2019). Model-based clustering of censored data via mixtures of factor analyzers. *Computational Statistics and Data Analysis*, 140, 104-121.

103 Benites, L., Maehara, R., **Lachos, V. H**. and Bolfarine, H. (2019). Linear regression models using finite mixtures of skew heavy-tailed distributions. *The Chilean Journal of Statistics*, 10, 21-40.

104 Galarza. C. E, **Lachos, V. H.,** Castro, L. M. and Louzada, F. N. (2020). Quantile regression for nonlinear mixed effects models: A likelihood based perspective. *Statistical Papers*, 61, 1281-1307.

105 Ramos, P. L., Louzada, F. N., Dey, D. K. and **Lachos, V. H.** (2020). An Extended Poisson Family of Life Distribution: A Unified Approach in Competitive and Complementary Risks. *Journal of Applied Statistics***, 47, 306-322.**

106 Gonçalves, F. Prates, M. O. and **Lachos, V. H.** (2020). Robust Bayesian model selection for heavy-tailed linear regression models using mixtures. *Brazilian Journal of Probability and Statistics*, 34, 51-70.

107 **Lachos, V. H.**, Cabral, C. R. and Garay, A. W. (2020). Moments of truncated scale mixtures of skew-normal distributions. *Brazilian Journal of Probability and Statistics***, 34, 1281-1307.**

108 Ferreira. C. S, **Lachos, V. H.** and Garay, A. W. (2020). Inference and diagnostics for heteroscedastic nonlinear regression models under skew scale mixtures of normal distributions. *Journal of Applied Statistics*, 47, 1690-1719.

109   Schumacher, F. L., Ferreira, C. S., Prates, M. O., Lachos, A. and **Lachos, V. H.** (2021). A robust nonlinear mixed-effects model for COVID-19 death data. *Statistics and its Interface*, 14, 49 – 57.

110   Nuñez, M., **Lachos, V. H.,** Galarza, C. E**,** and Matos, L. A. (2021). Estimation and diagnostic for partially censored regression models based on heavy-tailed distributions. *Statistics and its Interface*, 14, 165 – 182.

111   Olivari, R. C., Garay, A. W., **Lachos, V. H.** and Matos, L. A. (2021). Autoregressive mixed-effects models for censored data. *Journal of Biopharmaceutical Statistics*, 31, 273-294.

112   Ye , T., **Lachos, V. H.** , Wang X. and Dey, D. K. (2021). Comparisons of zero-augmented continuous regression models from a Bayesian perspective. *Statistics in Medicine*, 40, 1073-1100.

113   Valeriano, K. A .L., Matos, L. A., Prates, M. O. and **Lachos, V. H.** (2021). Likelihood-based inference for spatio-temporal data with censored and missing responses. *Environmetrics*, 32, 1-19.

114   Schumacher, F. L., **Lachos, V.H**. and Matos, L. A. (2021). Scale mixture of skew-normal linear mixed models with within-subject serial dependence. *Statistics in Medicine*, 40, 1790-1810.

115   Schumacher, F.L. Dey, D. K. and **Lachos, V. H.** (2021). Approximate inferences for nonlinear mixed-effects models with scale mixtures of skew-normal distributions. *Journal of Statistical Theory and Practice, 15, 60.* (Part of a collection: Celebrating the Centenary of Professor C. R. Rao)

116   Bandyopadhyay, D., Prates, M. O., Zhao, X. and **Lachos, V H.** (2021). Spatial skew-normal independent models for non-randomly missing clustered data. *Statistics in Medicine*, 40, 3085-3105**.**

117   **Lachos, V. H.**, Prates, M. O. and Dey, D. K. (2021). Heckman selection-t model: parameter estimation via the EM-algorithm. *Journal of Multivariate Analysis*, 184, 1-19.

118   Galarza, C. E., **Lachos, V. H.**, Lin, T. I. and Wang, W. L. (2021). High-order moments of truncated multivariate Student-t distribution based on recurrence relations. *Metrika*, 84, 825–850.

119   Galarza, C. E. **Lachos, V. H**. and Panpan, Z. (2021). Logistic quantile regression for bounded outcomes using a new family of heavy-tailed distributions. *Sankhya* – B, 83, 325–349.

120   Galarza, C. E., Bourguignon, M. and **Lachos, V. H**. (2021). A skew-t quantile regression modeling for censored and missing data. *STAT*, 10, 1-15 (e379).

121 Ruggeri, F., Bolfarine, H., Bazan, J. L., Arellano-Valle, R. B., **Lachos, V. H**. and de Castro, M. (2021). ISI Mahalanobis Award: a Tribute to Heleno Bolfarine. *International Statistical Review*, 89, 435–446.

122 Mattos, T.B., Matos, L. A. and **Lachos, V. H.** (2021). A semiparametric mixed effects model for censored longitudinal data. *Statistical Methods in Medical Research*, 30, 2582–2603.

123 Galarza, C. E. , Matos, L. A. and **Lachos, V. H.** (2022). Moments of the doubly truncated selection elliptical distributions with an emphasis on the unified multivariate skew-t distribution. *Journal of Multivariate Analysis*, 189. 104944.

124 Galarza, C. E., Matos, L. A., Dey, D. K. and **Lachos, V. H.** (2022). On moments of folded and truncated multivariate extended skew-normal distributions. *Journal of Computational and Graphical Statistics*, 31, 455-465.

125 de Alencar F. H, Galarza, C. E., Matos, L. A. and **Lachos V. H.** (2022). Finite mixture modeling of censored and missing data using the multivariate skew-normal distribution. *Advances and Data Analysis and Classification*, 16, 521–557.

126 Galarza , C. E., Matos, L. A. and **Lachos, V. H.** (2022). Likelihood-based inference for multivariate skew-normal censored responses. *Metron. 80, 231–253.*

127 Mattos, T. B., Matos, L. A., Castro, L. M. and **Lachos, V. H**. (2022). Extending multivariate-t semiparametric mixed models for longitudinal data with censored responses and heavy-tails. *Statistics in Medicine*, 41, 3696-3719.

128 **Lachos, V. H.,** Bazan, J. L. and Castro, L. M. and Park, J. (2022). The skew-t censored regression model: parameter estimation via an EM-type algorithm. *Communications for Statistical Applications and Methods*, 29, 1-29.

129 de Alencar, F. H., Matos, L. A. and **Lachos, V. H.** (2022). Finite mixture of censored linear mixed models for irregularly observed longitudinal data. *Journal of Classification,* 39 (3), 463 – 486.

130 Ferreira , C. S., Bolfarine, H. and **Lachos, V. H.** (2022). Linear mixed models based on skew scale mixtures of normal distribution. *Communications in Statistics – Simulation and Computation*, 51, 7194–7214.

131 Valeriano, K.L., Galarza, C.E., Matos, L.A. and **Lachos, V.H.** (2023). Likelihood-based inference for multivariate skew-t censored regression models. *Journal of Multivariate Analysis*, 196, 105174.

132 da Paz, R. Bazan, J. L., **Lachos, V. H.** and Dey, D. K. (2023). A finite mixture mixed proportion regression model for classification problems in longitudinal voting data. *Journal of Applied Statistics*, 50, 871-888.

133 Gomes, J. C., Aoki, R., **Lachos, V. H.**, Paula, G. A. and Russo, C. M. (2023).

Fast inference for robust nonlinear mixed-effects models. *Journal of Applied Statistics*, 50, 1568-1591.

134 **Lachos, V.H.**, Galea-Rojas, M. Prates, M. O. and Zeller, C.B. (2023). Likelihood inference-based for mixed-effects models using the generalized hyperbolic distribution. *Stat – An ISI's journal*, 12:e602.

135 Benites, L. S., Bolfarine, H., Zeller, C. B. and **Lachos, V. H.** (2023). Regression modeling of censored data based on compound scale mixtures of normal distributions. *Brazilian Journal of Probability and Statistics*, 37, 282-312.

136 Oliveira, M.S., Oliveira, D.C.R. and **Lachos, V.H.** (2023). Influence Diagnostics for Skew-t Censored Linear Regression Models. *Communications for Statistical Applications and Methods*, 30, 605-629.

137 Ordoñez, A. C., Prates, M. O. Bazan, J. L. and **Lachos, V. H.** (2024). Penalized complexity priors for the skewness parameter of power links. *The Canadian Journal of Statistics*, 52(1), 98-117.

138 Ordoñez, A. C., Prates, M. O. Matos, L.A. and **Lachos, V.H.** (2024). Objective Bayesian analysis for spatial Student-t regression models. *Journal of Spatial Science*, 69, 61-79.

139 Schumacher, F. L., **Lachos, V.H.** Castro, L.M.C. and Matos, L. A. (2024). A censored time series analysis for responses on the unit interval: An application to acid rain modeling. *Sankhya A*, 86, 637–660.

140 Park, J., Dey, D. and **Lachos, V.H.** (2024). Finite mixture of regression models for censored data based on the skew-t distribution. *Computational Statistics*, 39, 3695–3726.

141 Medina, F., Garay, A.W. and **Lachos, V.H.** (2024). Bayesian analysis of censored/missing regression models with autoregressive errors and symmetrical distributions. *Statistical Papers*, 65, 5649–5690.

142 Ordonez, J.A, Galarza, C. E. and **Lachos, V.H.** (2024). Spatial censored regression models in R: The censSpatial package. *SoftwareX,* 27, 101762.

143 Conceição, K.S., Andrade, M.G., **Lacho**s, **V.H.** and Ravishanker, N. (2025). Bayesian inference for zero-modified power series regression models, *Mathematics*. 13, 60.

144 Zhong, K. Olivari, R.C., Garay, A.M. and **Lachos, V.H.** (2025+). Mixed-effects models for censored data with autoregressive errors using the multivariate Student's t-distribution. *The New England Journal of Statistics in Data Science* (In Press).

DOI: https://doi.org/10.51387/24-NEJSDS68

145   Zhong, K., Schumacher, F. Castro, M. and **Lachos, V.H.** (2025+). Bayesian analysis of censored linear mixed-effects models for heavy-tailed irregularly observed repeated measures. *Statistics in Medicine* (In Press)

DOI: 10.1002/sim.10295

146   Padilla, J.L., Azevedo, C.L. and **Lachos, V. H.** (2025+). Parameter recovery for a skew multidimensional item response model: a comparison of MCMC algorithms and measurement of some effects of interest. *Journal of Statistical Computation and Simulation* (In Press)

DOI: https://doi.org/10.1080/00949655.2024.2428785

147   **Lachos, V.H**., Tomarchio, S.D. Punzo, A. and Ingrassia, S. (2025+). An EM algorithm for fitting matrix-variate normal distributions on interval-censored and missing data. *Statistics and Computing* (In Press)

DOI: https://doi.org/10.1007/s11222-025-10575-0

148   Galarza, C. E. and Lachos, V.H. (2025+). Truncated Moments. *International Encyclopedia of Statistical Science.* (In press).

DOI: https://doi.org/10.1007/978-3-662-69359-9_729

149   Schumacher, F.L., Matos, L.A. and **Lachos, V.H.** (2025+). skewlmm: An R Package for Fitting Skewed and Heavy-Tailed Linear Mixed Models. *Journal of Statistical Software* (In Press)

150   Oliveira, M.S, Galarza, C., Prates, M.O. and **Lachos, V.H.** (2025+). Influence Diagnostics for Heckman selection-t Models. *Journal of Applied Statistics* (In Press).

PAPERS UNDER REVIEW IN PEER REVIEWED JOURNALS

1. Schumacher, F., **Lachos, V. H.** and Matos, L. A. (2025+). "*Linear Mixed Models for Complex Longitudinal Data with Applications in R*". *SpringerBriefs* in Statistics Series, Springer (Book under review).

2. Jerez-Lillo, N., Tapia, A., **Lachos, V.H.** and Ramos, P.L. (2025+). A New Semi-Parametric Power-Law Regression Model with Long-Term Survival, Change Point Detection and Regularization. *Statistics in Medicine* (Under Review).

3. Wang, W-L., **Lachos, V.H.** <u>Chen, Y-C</u>. & Lin, T-I. (2025+). Flexible clustering via Gaussian parsimonious mixture models with censored and missing values. *Test* (Under Review).

4. <u>Zhong, K.</u>, Zhang, P., Castro, L.M., and **Lachos, V.H.** (2025+). Bayesian analysis of autoregressive linear mixed models for censored responses using the multivariate-t distribution. *Japanese Journal of Statistics and Data Science* (Under Review).

5. <u>Benites, L.E.</u>, Bolfarine, H. and **Lachos, V.H.** (2025+). Finite mixture of regression models based on multivariate scale mixtures of skew-normal distributions. *Computational Statistics* (Under Review).

6. <u>Gil, Y.A.</u>, Garay, A.W. and L**achos, V.H.** (2025+). Likelihood-based inference for interval censored regression models under heavy-tailed distributions. *Statistical Methods & Applications* (Under Review)

BOOKS AND CHAPTER BOOKS

1. **Lachos, V. H**. and Garay, A. W. (2013). *Análise de Dados Censurados sob Distribuições Simétricas com Aplicações no R*. 1. ed. São Paulo. Sociedade Brasileira de Estatística **(ABE)**. Book In Portuguese.

2. **Lachos, V. H.,** Cabral, C. R and Garay, A. W. (2013). Modelos não Lineares Assimétricos. 1. ed. São Paulo. Sociedade Brasileira de Estatística **(ABE).** Book In Portuguese

3. Castro, L. M., Galvis, D. M., **Lachos, V. H.** and Bandyopadhyay, D. (2015). *Bayesian Semiparametric Linear Mixed–Effects Models with Normal/Independent Distributions*. Chapman & Hall/CRC Press. Edited volume in "*Current Trends in Bayesian Methodology with Applications*".

4. Zeller, C. B., Cabral, C. R. and **Lachos, V. H.** (2015). *Finite Mixture of Skewed Distributions*. 1. ed. São Paulo. Sociedade Brasileira de Estatística **(ABE)**.

5. **Lachos, V. H.,** Cabral, C. R. B. and Zeller, C. B. (2018). "*Finite Mixture of Skewed Distributions*". SpringerBriefs in Statistics Series, Springer.

6. Mattos, T. B., Matos, L.A. and **Lachos, V. H.** (2022). "Likelihood-based inference for mixed-effects models with censored response using skew-normal distribution". Springer: "Innovations in multivariate statistical modeling: navigating theoretical and multidisciplinary domains".

SOFTWARES IN R

1. Prates, M.O., **Lachos, V. H.** and Cabral, C. R. B. (2010). "mixsmsn, fitting finite mixture of scale mixture of skew-normal distributions".
   . http://cran.r-project.org/web/packages/mixsmsn/index.html

2. Garay, A. W. and **Lachos V. H**. (2013**)**. "SMNCensReg: fitting univariate censored regression model under the scale mixture of normal distributions".
   http://cran.r-project.org/web/packages/SMNCensReg/

3. Garay, A. W. and **Lachos, V. H**. (2013). "nlsmsn: Fitting univariate non-linear scale mixture of skew-normal regression models".
   http://cran.r-project.org/web/packages/nlsmsn/index.html

4. Garay, A. W. Massuia, M. and **Lachos, V. H**. (2013). "BayesCR: Bayesian analysis of censored linear regression models with scale mixtures of normal (SMN) distributions".
   http://cran.r-project.org/web/packages/BayesCR/BayesCR.pdf

5. Matos, L. A. and **Lachos, V. H.** (2012). "tlmec: Linear Student-t mixed effects models with censored data".
   http://cran.r-project.org/web/packages/tlmec/index.html

6. Benites, L. E. and **Lachos, V. H.** (2013). "ALDqr: Quantile regression using asymmetric Laplace distribution".
   http://cran.r-project.org/web/packages/ALDqr/index.html

7. Galarza, C. E. and **Lachos, V. H. (2015).** "qrLMM: Quantile Regression for Linear Mixed-Effects Models".
   http://cran.r-project.org/web/packages/qrLMM/index.html

8. Galarza, C. E. and **Lachos, V. H.** (2015). "qrNLMM: Quantile Regression for Nonlinea r Mixed-Effects Models".
   http://cran.r-project.org/web/packages/qrNLMM/index.html

9. Galarza, C. E. and **Lachos, V. H.** (2015). "ald: The Asymmetric Laplace Distribution".
   http://cran.r-project.org/web/packages/ald/index.html

10. Galarza, C. E. and **Lachos, V. H.** (2015). "lqr: Robust Linear Quantile Regression".
    http://cran.r-project.org/web/packages/lqr/index.html

11. Benites, L. E. and **Lachos, V. H.** (2015). "CensMixReg: Modeling Censored Data Using Mixture Regression.
    https://cran.r-project.org/web/packages/CensMixReg/index.html

12. Benites, L. E., Maehara, R. P. and **Lachos, V. H.** (2015). "FMsmsnReg: Regression

Models with Finite Mixtures of Skew Heavy-Tailed Errors".
https://cran.r-project.org/web/packages/FMsmsnReg/index.html

13. Schumacher, F. L., **Lachos, V. H.** and Galarza, C. E. (2016). "ARCensReg: Fitting Univariate Censored Linear Regression Model with Autoregressive Errors".
https://cran.r-project.org/web/packages/ARCensReg/index.html

14. Ordoñez, A. E., Galarza, C. E. and **Lachos, V. H.** (2016). "CensSpatial: Censored Spatial Models".
https://cran.r-project.org/web/packages/CensSpatial/index.html

15. Galarza, C. E., Kan, R. and **Lachos, V. H. (2021)**. "MomTrunc: Moments of Folded and Doubly Truncated Multivariate Distributions".

https://cran.r-project.org/web/packages/MomTrunc/

16. Nuñez, M., Galarza, C. E., Matos, L. A. and **Lachos, V. H.** (2017). "PartCensReg: Partially Censored Regression Models Based on Heavy-Tailed Distributions".
https://cran.r-project.org/web/packages/PartCensReg/index.html

17. Olivari, R., Garay, A. W., and **Lachos, V. H.** (2019). "ARpLMEC: Fitting Autoregressive Censored Linear Mixed-Effects Models".
https://cran.r-project.org/web/packages/ARpLMEC/

18. Valeriano, K., Matos, L. A. and **Lachos, V. H.** (2019). "StempCens: Spatio-Temporal Estimation and Prediction for Censored/Missing Responses".
https://cran.r-project.org/web/packages/StempCens/index.html

19. Schumacher, F. L., **Lachos, V. H**. and Matos, L.A. (2021). "skewlmm: Scale Mixture of Skew-Normal Linear Mixed Models".
https://cran.r-project.org/web/packages/skewlmm/index.html

20. Ordoñez, A. E., **Lachos, V. H**. and Prates, M. O. (2021). "OBASpatial: Objective Bayessian Analysis for Spatial Regression Models"
https://cran.r-project.org/web/packages/OBASpatial/index.html

21. De Alencar, H., Galarza, C. E., Matos, L. A. and **Lachos, V. H**. (2021). "CensMFM: Finite Mixture of Multivariate Censored/Missing Data"
https://cran.r-project.org/web/packages/CensMFM/index.html

22. Zhong Kelin, Castro, L. M. and **Lachos, V. H**. (2024). "SMNlmec: Scale Mixture of Normal Distribution in Linear Mixed-Effects Models"

https://cran.r-project.org/web/packages/SMNlmec/index.html

OTHER PROFESSIONAL SERVICES

ORGANIZING CONFERENCES OR WORKSHOPS

1. 3rd Workshop in Survival Analysis and Applications (WASA). Nov. 27 - Nov. 29, 2013 in Campinas, Sao Paulo - Brazil. <u>Chair of the Organizing Committee</u> http://www.ime.unicamp.br/~wasa/

2. The 14th Brazilian School of Regression Models (14 EMR). March. 02 until March. 05, 2015 in Campinas, Sao Paulo - Brazil. <u>Chair of the Organizing Committee and Chair of the Scientific Committee</u>. http://www.ime.usp.br/~abe/emr2015/

3. Model-Based Clustering and Classification (MBC2). 5-7 September, 2016 in Catania - Italy. <u>Member of the Scientific Committee</u>. http://mbc2.unict.it/

4. The 15th Brazilian School of Regression Models (15 EMR). March. 26 until March. 29, 2017 in Pirenopolis, Goiania-Brazil. <u>Chair of the Scientific Committee</u>. http://www.redeabe.org.br/emr2017/

5. The 5th Workshop in Survival Analysis and Applications (WASA-2017). Salvador, Bahia - Brazil. <u>Member of the Scientific Committee.</u>

6. The 14th Brazilian Meeting of Bayesian Statistics (EBEB-2018). March 05-09, 2018 Rio de Janeiro - Brazil. <u>Member of the Scientific Committee</u>. https://bayesian.org/xiv-brazilian-meeting-on-bayesian-statistics-ebeb/

7. The 3rd International Conference on Econometrics and Statistics (EcoSta 2019). 25-27 June 2019, Taichung-Taiwan. <u>Member of the Scientific Committee</u>. http://www.cmstatistics.org/EcoSta2019/

8. The 16th Brazilian Meeting of Bayesian Statistics (EBEB-2022). March 16-18, 2022, Sao Carlos, Sao Paulo - Brazil (Virtual Event). <u>Member of the Scientific Committee.</u> https://eventos.galoa.com.br/ebeb-lacsc-2022/page/1381-home

9. The 2022 ICSA Applied Statistics Symposium. June 19th to June 22th, 2022 at University of Florida, Gainesville. <u>Member of the Scientific Committee.</u> https://symposium2022.icsa.org/committees/

10. A New Era of Statistical Science: A Special Conference in Honor to Prof. Dipak Dey's 70th Anniversary. August 16-18, 2023, Belo Horizonte, BH – Brazil. <u>Member of the Scientific Committee.</u> https://www.redeabe.org.br/a-new-era-of-statistical-science/

11. The 6th Workshop in Survival Analysis and Applications (WASA-2024). October 29-31, 2024, Brasilia, - Brazil. <u>Member of the Scientific Committee.</u>

12. The 68th *Annual Meeting* of the Brazilian Region of the International Biometrics Society (68 Rabras 2024). May 29 until May 31, 2024 in Piracicaba, Sao Paulo - Brazil. <u>Member of the Scientific Committee</u>.

    https://68rbras.com.br/

13. The 69th *Annual Meeting* of the Brazilian Region of the International Biometrics Society (69 Rbras 2025). August 04 until August 09, 2025 in Vitoria, Espiritu Santo - Brazil. <u>Member of the Scientific Committee</u>

    https://69rbras21seagro.com.br/

14. The 8th International Conference on Econometrics and Statistics (EcoSta 2025). August 21-23, 2025, Tokyo-Japan. <u>Member of the Scientific Committee.</u>

    https://www.cmstatistics.org/EcoSta2025/

SERVICE TO THE UNIVERSITY/SCHOOL/DEPARTMENT

Campinas State University

1. Director of the Undergraduate Program in Statistics. Campinas State University, UNICAMP, Campinas, Brazil. From 2011-2015.
2. Faculty Search Committee [2013, 2014]

University of Connecticut

3. Chair, Lecturer Search Committee, Department of Statistics [2019, 2020, 2021, 2022]
4. Assistant Professor Search Committee, Department of Statistics [2023]
5. Committee Member on Curricula and Courses in the College of Liberal Arts and Sciences (C&C - CLAS) [2019-2024].
6. Member of the CLAS Diversity, Equity and Inclusion (DEI) Advisory Committee at UConn [2022-2023]
7. CLAS Dean's Advisory Council for Promotion, Tenure, and Reappointment - Life and Physical Sciences [2024-2025]

8. Department of Statistics, Committees Member 2023-2025:

   - PTR
   - Graduate Admissions
   - Colloquium
   - Course & Curriculum of CLAS
   - Gratis Faculty Appointments
   - Makuch Faculty Fellowship

- Graduate Students and Distinguished Alumni Awards
- Graduate Examinations
- SET+ Faculty Teaching Evaluations
- VAP/APiR Search Committee
- Undergraduate Data Science Major Committee
- Makuch Distinguished Lecture
- Organizing Committee of the 60th Anniversary Celebration

External

1. Elected Council Member of the New England Statistical Society [2021-Present]