

Thiago de Paula Oliveira | CV

- » Statistical computing: R, Shiny, Maple, SageMath
- » Computational programs: Latex, Markdown, Office, Gimp, Inkscape, Github
- » Operational systems: Linux, Windows
- » Languages: Portuguese (native), English (upper intermediate)
- » Research web pages: ORCID, Plubons, Personal Webpage



»»» General Information

- » Work Address: National University of Ireland, Galway, University Road, Galway, Ireland, H91 TK33
- » Tel: +353 83 3814459
- » E-mail Address: thiago.paula.oliveira@usp.br
- » Date of Birth: 01 February 1985, Tatuí, Brazil
- » Nationality: Brazilian
- » Marital Status: Married

»»» Summary

Thiago is a Senior Biostatistician at Orreco working in partnership with the Insight Centre for Data Analytics and National University of Ireland Galway (NUIGalway). His expertise is in **statistical modelling**, in particular the study of individual level responses over time. Thiago holds a PhD in Statistics from the University of São Paulo, Brazil. He has over **six years experience in all aspects of statistical modelling** and has published several peer-reviewed papers. Before joining Orreco, Thiago was Assistant Professor and postdoctoral researcher at the University of São Paulo. During his undergraduate, he was enjoyed in a project granted by São Paulo Research Foundation, and involving the Biological Sciences and Exact Sciences Departments. This project led to publication of two peer-review papers, and a conference paper which won honorable mention by the University of São Paulo. His research interests comprise longitudinal data, concordance analysis, response prediction, generalized linear mixed-effects model, computing for statistical development (specially in R software), experimental designs, observational study, development of dashboard designs (specially in Shiny), and agriculture.

»»» Education

2014 – 2018 PhD in Statistics
(4 years)

University of São Paulo –
ESALQ/USP

- » Title: Estimating the longitudinal concordance correlation through fixed effects and variance components of polynomial mixed-effects regression model
- » Advisor: Dr. Silvio Sandoval Zocchi and Prof. John Hinde
- » Department of Exact Sciences

2016 Visiting scholar – internship
(3 months)

NUIGalway

- » Supervisor: Prof. John Hinde
- » School of Mathematics, Statistics and Applied Mathematics
- » Development of new methodology in Concordance Analysis

2012 – 2014 MSc in Statistics University of São Paulo –
(2 years) ESALQ/USP

- » Title: Mixed-effects models applied to hue peel color of papaya cv. Sunrise Solo measured by an scanner and colorimeter over time
- » Advisor: Dr. Silvio Sandoval Zocchi
- » Department of Exact Sciences

2007 – 2012 BSc in Agricultural Engineering University of São Paulo –
(5 years) ESALQ/USP

- » Title: Calibration of scanner methodology to evaluate 'Golden' papaya peel color.
- » Advisor: Dr. Silvio Sandoval Zocchi
- » Department of Exact Sciences

»»» Professional experience

2020 Postdoc in Biostatistics NUIGalway
(3 months)

- » Supervisor: Prof. Dr. John Newell
- » Aspire Academy research collaboration project
- » School of Mathematics, Statistics & Applied Maths; and Insight Centre for Data Analytics

2019 Postdoc in Biostatistics NUIGalway
(8 months)

- » Supervisor: Prof. Dr. John Newell
- » Statistical modeling for optimizing athlete performance
- » School of Mathematics, Statistics & Applied Maths; Orreco; and Insight Centre for Data Analytics

2018-2019 Postdoc in Statistics University of São Paulo –
(10 months) ESALQ/USP

- » Advisor: Prof. Dr. Clarice Garcia Borges Demétrio
- » Title: Estimation of the longitudinal concordance correlation function: The 1cc package
- » Department of Exact Sciences

2017 – 2019 Assistant Professor at University of São Paulo – ESALQ/USP (18 months)

»»» Volunteer experience

2016 Class tutor in Calculus at University of São Paulo – ESALQ/USP (5 months)
2015 Class tutor in Statistics at University of São Paulo – ESALQ/USP (5 months)

»»» Research experience

Generalized linear mixed-effects models (Classical and Bayesian)

Concordance analysis (Agreement, precision, and accuracy measures)

Bootstrap methods for confidence intervals (Non-parametric and parametric)

Experimental Designs (Complete and Incomplete Blocks, Latin Square, Full factorial, Fractional Factorial, Split-Plot, Central Composite, Nested designs)

Longitudinal data and Observational Studies

State space models (ARMA, ARIMA and Random Walk models)

Digital Image Analysis, Vegetal Production, Post-Harvest

Development of R packages, Dashboard Design, and Webpages (Github)

Publications

Table 1: Publications summary

	Article	R Package	Abstract	Manuscript
Number	4	1	11	2

Papers Submitted in Peer-Reviewed Journals

Submitted manuscript	Oliveira, T.P. ; Moral, R. A.; Hinde, J.; Zocchi, S. S.; Demetrio, C. G. B. Estimation of the longitudinal concordance correlation function in R: The LCC package. PeerJ - Life and Environment Science . Submitted in March 2020.
Submitted manuscript	Kleina, H. T.; Kudlawiec, K.; Esteves, M. B.; Daibó, M.; Oliveira, T.P. ; Maluta, N.; Lopes, J. S.; Mio, L. M. Association of leaf morphology, vector settling and feeding behavior with resistance of plum genotypes to leaf scald disease. European Journal of Plant Pathology . Submitted in April 2020.

Papers in Peer-Reviewed Journals

Article	Popin, G. V.; Santos, A. K. B.; Oliveira, T.P. ; Camargo, P. B.; Cerri, C. E. P.; Siqueira-Neto; M. Sugarcane straw management for bioenergy: effects of global warming on greenhouse gas emissions and soil carbon storage. Mitigation and Adaptation Strategies for Global Change , 2019. Link: https://doi.org/10.1007/s11027-019-09880-7
Article	Esteves, M. B.; Kleina, H. T.; Sales, T. M.; Oliveira, T.P. ; Lara, I. A. R.; Almeida, R. P. P.; Coletta-Filho, H. D.; Lopes, J. R. S. Transmission efficiency of <i>Xylella fastidiosa</i> subsp. <i>pauca</i> sequence types by sharpshooter vectors after <i>in vitro</i> acquisition. The American Phytopathological Society , v. 109, no.2, 2019. Link: https://doi.org/10.1094/PHYTO-07-18-0254-FI
Article	Oliveira, T.P. ; Hinde, J.; Zocchi, S. S. Longitudinal Concordance Correlation Function Based on Variance Components: An Application in Fruit Color Analysis. Journal of Agricultural, Biological, and Environmental Statistics , v. 23, p. 233-254, 2018. Link: https://doi.org/10.1007/s13253-018-0321-1
Article	Oliveira, T.P. ; Zocchi, S. S. ; Jacomino, A. P. Measuring color hue in ‘Sunrise Solo’ papaya using a flatbed scanner. Revista Brasileira de Fruticultura , v. 39, p. e-911, 2017. Link: http://dx.doi.org/10.1590/0100-29452017911

Software

R package	Oliveira, T.P. ; Moral, R. A.; Hinde, J.; Zocchi, S. S.; Demetrio, C. G. B. lcc: Longitudinal Concordance Correlation , R package version 1.0.2, 2018. See also https://github.com/Prof-ThiagoOliveira/lcc
Proceedings	
Extended abstract	Oliveira, T.P. ; Moral, R.A.; Hinde, J.; Zocchi, S.S.; Demétrio, C.G.B. The longitudinal concordance correlation. In: 34th International Workshop on Statistical Modelling , 2019, Guimarães. Proceedings of the 34 th International Workshop on Statistical Modelling, 2019. v. 2.
Abstract	Zocchi, S.S.; Oliveira, T.P. Propagação de <i>Penicillium</i> em laranja (<i>Citrus cinensis</i>): estimulando o aprendizado de cálculo. 1º Oficina para o desenvolvimento docente de 2017, “Novas abordagens de ensino - compartilhando experiências na ESALQ”, 2017
Abstract	Oliveira, T.P. ; Hinde, J.; Zocchi, S.S. Longitudinal Concordance correlation function based on variance components: an application in fruit color analysis. NUIG Statistics MiniSymposium, 2016.
Extended abstract	Oliveira, T.P. ; Moral, R.A.; Hinde, J.; Demétrio, C.G.B.; Zocchi, S.S.; Zanardo, A.B.R.; Delalibera Jr., I. Generalized linear mixed models applied to overdispersed proportion data in a fungal occurrence study. In: 30th International Workshop on Statistical Modelling , 2015, Linz. Proceedings of the 30 th International Workshop on Statistical Modelling, 2015. v. 2. p. 203-206.
Abstract	Oliveira, T.P. ; Moral, R.A.; Hinde, J.; Demétrio, C.G.B.; Zocchi, S.S. Generalized linear mixed models: an application in fungal occurrence data. In: 60ª Reunião Anual da Região Brasileira da Sociedade Internacional de Biometria e 16º Simpósio de Estatística Aplicada à Experimentação Agrônômica , 2015, Presidente Prudente. Reunião Anual da Região Brasileira da Sociedade Internacional de Biometria, n. 60, Presidente Prudente, 2015. 172 p., 2015.
Abstract	Oliveira, T.P. ; Zocchi, S.S. ; Ferreira, I. E.P. Mixed models for analysis of hue peel colour of papaya (<i>Carica papaya</i> L.) cv. Sunrise Solo, measured along time by means of a scanner and a colorimeter. In: XXVII International Biometric Conference, 2014, Florence, Italy. Proceedings of XXVII International Biometric Conference, 2014. v. 1.
Abstract	Oliveira, T.P. ; Zocchi, S.S. Mixed models for analysis of hue peel color of papaya (<i>Carica papaya</i> L.) cv. ‘Sunrise Solo’, measured along time by means of a scanner and a colorimeter. I Workshop on Experimental Statistics e IV Encontro dos Alunos do PPG em Agronomia (Estatística e experimentação agrnômica), 2014.
Extended abstract	Oliveira, T.P. ; Zocchi, S. S. . Análise de dados circulares com aplicação em tonalidade da cor de casca de mamão ‘Sunrise Solo’. In: 58ª Reunião Anual da Região Brasileira da Sociedade Internacional de Biometria e 15º Simpósio de Estatística Aplicada à Esperimentação Agrônômica , 2013, Campina Grande. Anais..., 2013. p. 202.
Extended abstract	Oliveira, T.P. ; Zocchi, S. S. Análise de dados circulares com aplicação em tonalidade da cor de casca de mamão ‘Sunrise Solo’. In: 58ª Reunião Anual da Região Brasileira da Sociedade Internacional de Biometria e 15º Simpósio de Estatística Aplicada à Esperimentação Agrônômica , 2013, Campina Grande. Anais..., 2013. p. 202.
Abstract	Oliveira, T.P. ; Zocchi, S. S. Modelos lineares de efeitos mistos: um estudo de caso. Encontro dos Alunos do Programa de Pós-Graduação em Estatística e e Experimentação Agrônômica, 2013
Abstract	Camara, G. M. S.; Oliveira, T.P. ; Navarro, B. L. ; Brigliadori, L. D. Crescimento e produtividade de soja em três arranjos espaciais. In: VI Congresso Brasileiro de Soja , 2012, Cuiabá-MT. Anais. Londrina-PR : Embrapa Soja, 2012. v. 1. p. 151-153.
Thesis	
Theses	Oliveira, T.P. Estimating the longitudinal concordance correlation through fixed effects and variance components of polynomial mixed-effects regression model. University of São Paulo, 2018

Theses

Oliveira, T.P. Mixed-effects models applied to hue peel color of papaya cv. Sunrise Solo measured by an scanner and colorimeter over time. University of São Paulo, 2014

»»» Reviewer

2019 Biocontrol Science and Technology, Taylor & Francis [Link](#)

» Number of papers reviewed: 1

2020 PeerJ - Life and Environment [Link](#)

» Number of papers reviewed: 2

»»» Masters and PhD Examiners

2019 Nascimento, C.O.; Lara, I.A.R. Analysis of color peel of the papaya cv. Sunrise Solo through of the mixed linear regression model. Thesis (Master's Degree in Statistics) – University of São Paulo, Piracicaba, Brazil.

»»» Awards

2010 Honorable Mention at the 18th USP International Symposium of Undergraduate Research, University of São Paulo.

»»» Extracurricular courses (last 5 years)

2019 Survival Analysis in R. DataCamp, USA. (4h)

2019 Building Web Applications in R with Shiny: Case Studies Course. DataCamp, USA. (4h)

2019 Building Dashboards with shinydashboard. DataCamp, USA. (4h)

2019 Building Web Applications in R with Shiny. DataCamp, USA. (4h)

2019 Introduction to Python. DataCamp, USA. (4h)

2019 Statistical Modeling in R (Part 1). DataCamp, USA. (4h)

2019 Intermediate R. DataCamp, USA. (6h)

2019 Introduction to R. DataCamp, USA. (4h)

2018 Machine Learning Toolbox. DataCamp, USA. (4h)

2016 Longitudinal and Incomplete Data – USP (30h)

2015 Short curse on Regression Models – Coursera, MOOC, USA (36h)

2015 Short curse on Dimensionality Reduction – USP

2015 Additive Generalized Models with P-splines – RBras

2015 Exploring interactive graphical interfaces in R – RBras

2015 Exploring the Flexibility of Linear Mixed Models – RBras

2015 Special Topics in Multivariate Analysis – RBras

»»» Event participation (last 5 years)

2019 The Inaugural Young-ISA Meeting – Maynooth, Co. Kildare, Ireland

2019 34th meeting of the International Workshop on Statistical Modelling (IWSM) – Guimarães, Portugal.

2016 NUIG Statistics MiniSymposium. Longitudinal Concordance correlation function based on variance components: an application in fruit color analysis.

2015 30th meeting of the International Workshop on Statistical Modelling (IWSM) – Linz, Vienna.

2015 60th meeting of the Brazilian Region International Biometric Society (RBras) e 16° “Simpósio de Estatística Aplicada à Experimentação Agronômica” – Presidente Prudente, SP, Brazil

2015 How to Write for and Get Published in Scientific Journals – Piracicaba, SP, Brazil

2014 II Workshop on Longitudinal and Incomplete Data – Piracicaba, SP, Brazil

2014 I Workshop on Experimental Statistics e IV “Encontro dos Alunos do PPG em Agronomia” – Piracicaba, SP, Brazil

»»» Teaching Experience

Taught Modules

2018 LCE0602 Experimental Statistics, University of São Paulo, Piracicaba, Brazil, *Agricultural Engineering programme*, August-December.

2018 LCE0220 Calculus II, University of São Paulo, Piracicaba, Brazil, *Agricultural Engineering programme*, August - December.

2018 LCE0120 Calculus I, University of São Paulo, Piracicaba, Brazil, *Agricultural Engineering programme*, August - December.

2018 LCE0120 Calculus I, University of São Paulo, Piracicaba, Brazil, *Agricultural Engineering programme*, February - June.

2018 LCE0220 Calculus II, University of São Paulo, Piracicaba, Brazil, *Agricultural Engineering programme*, February - June.

2018 LCE0130 Differential and Integral Calculus, University of São Paulo, Piracicaba, Brazil, *Food Science programme*, February - June.

2017 LCE0602 Experimental Statistics, University of São Paulo, Piracicaba, Brazil, *Agricultural Engineering programme*, August - December.

2017 LCE0120 Calculus II, University of São Paulo, Piracicaba, Brazil, *Agricultural Engineering programme*, August - December.

Taught Short Courses

2018 I Workshop on Introduction to Experimental Design, University of São Paulo, Piracicaba, Brazil

Teaching Assistance

2016	LCE0120 - Calculus I, University of São Paulo, Piracicaba, Brazil, taught by Dr. Silvio Sandoval Zocchi for undergraduate students of the Agricultural Engineering programme, 120h
2015	LLCE0220 Calculus II, University of São Paulo, Piracicaba, Brazil, taught by Prof. Idemauro Antonio Rodrigues de Lara for undergraduate students of the Agricultural Engineering programme, August-December, 120h
2015	LLCE0211 Statistics, University of São Paulo, Piracicaba, Brazil, taught by Dr. Silvio Sandoval Zocchi for undergraduate students of the Agricultural Engineering programme, February-June, 120h
2013	LLCE0220 Calculus II, University of São Paulo, Piracicaba, Brazil, taught by Prof. Idemauro Antonio Rodrigues de Lara for undergraduate students of the Agricultural Engineering programme, August-December, 120h
2013	LLCE0166 Calculus and Mathematics Applied to Food Sciences, University of São Paulo, Piracicaba, Brazil, taught by Dr. Silvio Sandoval Zocchi for undergraduate students of the Food Sciences programme, February-June, 120h

»»» Lectured workshops and invited talks

2020	Estimating NBA athlete performance using hierarchical models, National University of Ireland Galway, Ireland, 21 April 2020
2019	Modelling menstrual cycle length using state space models. The Inaugural Young-ISA Meeting – Maynooth, Ireland
2016	Longitudinal concordance correlation function based on variance components: an application in fruit color – NUI Galway

»»» Professional Websites and Apps

Github	https://github.com/Prof-ThiagoOliveira	Link
lccApp	https://prof-thiagooliveira.shinyapps.io/lccApp/	Link
Calculus	https://prof-thiagooliveira.github.io/calculus/	Link

»»» Fellowship

2011	São Paulo Research Foundation	FAPESP
	<ul style="list-style-type: none"> » Scientific initiation / Advisor: Prof. Silvio Sandoval Zocchi » Process number: 2010/16955-1 » Grants awarded: approximately £3,000 	
2012-2013	Coordination of Improvement of Higher Education Personnel	CAPES
	<ul style="list-style-type: none"> » Master / Advisor: Prof. Silvio Sandoval Zocchi » Project: Mixed effects models applied to hue peel color of papaya (<i>Carica papaya</i> L.) cv. "Sunrise Solo" measured over time using a scanner and a colorimeter » Grants awarded: approximately £15,082 	
2014-2017	National Council for Scientific and Technological Development	CNPq

	<ul style="list-style-type: none"> » PhD / Advisor: Prof. Silvio Sandoval Zocchi » Project: Estimating the longitudinal concordance correlation through fixed effects and variance components of polynomial mixed-effects regression model » Grants awarded: approximately £26,543 	
2018-2019	Coordination of Improvement of Higher Education Personnel	CAPES
	<ul style="list-style-type: none"> » Postdoctoral Researcher / Coordinator: Prof^a. Clarice G. B. Demétrio » Project: Estimation of Longitudinal Concordance Correlation Function: The lcc package » Grants awarded: approximately £7,000 	
2019	Science Foundation Ireland	SFI
	<ul style="list-style-type: none"> » Postdoctoral Researcher in Biostatistics / Coordinator: Prof. John Newell » Project: Development of statistical model with application in athlete performance » Project Funding: €12,417,097 	
2020	Science Foundation Ireland	SFI
	<ul style="list-style-type: none"> » Postdoctoral Researcher in Biostatistics / Coordinator: Prof. John Newell » Project: Aspire Academy research collaboration project » Project Funding: €20,000 	

»»» References

Prof. John Hinde	NUIGalway
<ul style="list-style-type: none"> » Phone: +353 (0) 91 492043 » Email: john.hinde@nuigalway.ie 	
Dr. Rafael de Andrade Moral	Maynooth University
<ul style="list-style-type: none"> » Phone: +353 (1) 708 6645 » Email: rafael.deandrademoral@mu.ie 	
Prof. John Newell	NUIGalway
<ul style="list-style-type: none"> » Phone: +353 (0) 91 524411 » Email: john.newell@nuigalway.ie 	
Prof. Silvio Sandoval Zocchi	ESALQ/USP
<ul style="list-style-type: none"> » Phone: +55 (19) 3429.4127 » Email: sszocchi@usp.br 	
Prof. Clarice Garcia Borges Demétrio	ESALQ/USP
<ul style="list-style-type: none"> » Phone: +55 (19) 3429.4127 » Email: clarice.demetrio@usp.br 	

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