Thiago de Paula Oliveira | CV

❯ Statistical computing: R, Shiny, Maple, SageMath

❯ Computational programs: LaTex, Markdown, Office, Gimp, Inkscape, GitHub

❯ Operational systems: Linux, Mac, Windows

❯ Languages: Portuguese (native), English

❯ Research web pages: ORCID, Plubons, Personal Webpage

❯❯❯ General Information

❯ Work Address: The University of Edinburgh, Easter Bush Campus, Midlothian EH25 9RG, Scotland

❯ Tel: +353 83 3814459

❯ E-mail Address: thiago.oliveira@ed.ac.uk

❯ Date of Birth 01 February 1985, Tatuí, Brazil

❯ Nationality: Brazilian

❯ Marital Status: Married

❯❯❯ Summary

I hold a PhD in Statistics from the University of São Paulo, Brazil, and have at least eight years of experience in experimental statistics, statistical modelling, and concordance analysis. As a PhD candidate, I was a visiting Scholar at the National University of Ireland in 2016, working with statistical modelling for agricultural data. Besides, I was a lecturer in the Department of Exact Sciences at ESALQ/University of São Paulo, Piracicaba, São Paulo, Brazil from 2017 to 2019.

I worked as a Researcher Biostatistician from 2019-2020 at Insight Centre for Data Analytics in partnership with Orreco, School of Mathematics, Statistics, and Applied Mathematics, and NUI Galway in the development of statistical methods applied to athlete performance, and predictive models for COVID-19. I developed statistical methods in longitudinal concordance correlation, multilevel model (hierarchical model), generalized linear mixed-effects model, state-space models, experimental design, longitudinal data.

As an enthusiast of the usage of dashboard apps to create an interactive data visualization, I believe that interactive applications are an easier way to create visual representations of large scale data sets, allowing the user explore the complex reality of the database, or even handle multiple sets of data in a single visualization.

Recently, I was awarded a Marie Skłodowska-Curie Individual Fellowship to work at The Roslin Institute - The University of Edinburgh, where I currently work on the development of statistical models applied to quantitative genetics and genomics of plant breeding in partnership with Limagrain.

❯❯❯ Education

2014 – 2018 (4 years)	PhD in Statistics	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 (3 months)	Visiting scholar – internship	NUIGalway

❱ Supervisor: Prof. John Hinde

❱ School of Mathematics, Statistics and Applied Mathematics

❱ Development of new methodology in Concordance Analysis

2012 – 2014 (2 years)	MSc in Statistics	University of São Paulo – 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 (5 years)	BSc in Agricultural Engineering	University of São Paulo – 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-Actual	Researcher Fellow	University of Edinburgh

❱ PI: Dr. Gregor Gorjanc

❱ Quantitative genetics and genomics of plant breeding

❱ The Roslin Institute

2020 (3 months)	Postdoc in Biostatistics	NUIGalway

❱ Supervisor: Prof. Dr. Carl Scarrott

❱ Early Detection of Secondary Waves of Covid-19 Infections

❱ School of Mathematics, Statistics & Applied Maths; and Insight Centre for Data Analytics

2020 (3 months)	Postdoc in Biostatistics	NUIGalway

❱ Supervisor: Prof. Dr. John Newell

❱ Aspire Academy research collaboration project

❱ School of Mathematics, Statistics & Applied Maths; and Insight Centre for Data Analytics

2019 (8 months)	Postdoc in Biostatistics	NUIGalway

> ❱ 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 (10 months)	Postdoc in Statistics	University of São Paulo – ESALQ/USP

> ❱ Advisor: Prof. Dr. Clarice Garcia Borges Demétrio
> ❱ Title: Estimation of the longitudinal concordance correlation function: The `lcc` 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, Agricultural Production, Post-Harvest Studies

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

❱❱❱ Publications

Table 1: Publications summary

	Article	R Package	Abstract	Preprint
Number	6	1	11	1

Papers in Peer-Reviewed Journals

Article	**Oliveira, T.P.**; Moral, R. A.; Zocchi, S. S.; Demetrio, C. G. B; Hinde, J. lcc: an R package to estimate the concordance correlation, Pearson correlation, and accuracy over time. **PeerJ**. Accepted for publication in August of 2020. DOI: 10.7717/peerj.9850

Phd in Statistics and Agricultural Experimentation · Galway, Ireland · **thiago.oliveira@ed.ac.uk** · +353 83 3814459

Article	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 resistence of plum genotypes to leaf scald disease. **Entomologia Experimentalis et Applicata**. Accepted for publication in August of 2020. DOI: 10.1007/s10658-020-02104-8
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 *Xylella fastidiosa* subsp. *pauca* sequence types by sharpshooter vectors after *in vitro* 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`

Preprint

Preprint	**Oliveira, T.P.**; Moral, R.A. **Global Short-Term Forecasting of Covid-19 Cases**, **arXiv:2006.00111v1**, 2020. Link: `https://arxiv.org/pdf/2006.00111.pdf`

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 34th International Workshop on Statistical Modelling, 2019. v. 2.
Abstract	Zocchi, S.S.; **Oliveira, T.P.** Propagação de Penicillium em laranja (Citrus cinensis): estimulando o aprendizado de cálculo. 1° 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 30th 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 16° Simpósio de Estatística Aplicada à Experimentação Agronômica**, 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 (Carica papaya 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 (Carica papaya 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 15° Simpósio de Estatística Aplicada à Esperimentação Agronômica**, 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 15° Simpósio de Estatística Aplicada à Esperimentação Agronômica**, 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 Agronômica, 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

Thesis	**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
Thesis	**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

2020	Runner-up Poster on Young-ISA Twitter Poster Conference promoted by the Irish Statistical Association. Poster Title: Global short-term forecasting of Covid-19 cases. Authors: **Oliveira, T.P.**; Moral, R.A., July, 2020
2020	Marie Skłodowska-Curie Actions Fellowship for her project "Development and optimisation of statistical models for global crop breeding programs"

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

❯❯❯ Extracurricular courses

2020	Programming Fundamentals, Coursera, Duke University, USA. (32h)
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
2014	Generalized Additive Models with P-splines – USP
2013	Short curse on Statistics: Making Sense of Data – Coursera, MOOC, USA
2013	Short curse on Mathematical Biostatistics Boot Camp – Coursera, MOOC, USA
2013	Introduction to Categorical Data Analysis – USP
2013	Structural Equations Models – USP
2013	Some Important Topics of Asymptotic Theory – USP

❯❯❯ Event participation

2020	71st Annual Meeting of European Federation of Animal Science (EAAP)
2020	Why R? 2020 conference organized remotely
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
2013	58th meeting of the Brazilian Region International Biometric Society e 15° "Simpósio de Estatística Aplicada à Esperimentação Agronômica" – São Paulo, SP, Brazil
2012	57th meeting of the Brazilian Region International Biometric Society – Piracicaba, SP, Brazil
2011	19th meeting of the USP International Symposium of Undergraduate Research – Piracicaba, SP, Brazil
2010	18th meeting of the USP International Symposium of Undergraduate Research – 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	Global Short-Term Forecasting of Covid-19 Cases. Webinar Series of the Young-ISA, Ireland
2020	Global Short-Term Forecasting of Covid-19 Cases. Workshop on Applied Statistics: Prediction models for COVID-19, Artificial Intelligence and Postgraduate Research during pandemic time. University of São Paulo, Brazil
2020	Estimating NBA athlete performance using hierarchical models, National University of Ireland Galway, Ireland, 21 April 2020
2019	Modelling athletes menstrual cycle length using state space models. NUI Galway, Ireland
2019	Modelling menstrual cycle length using state space models. The Inaugural Young-ISA Meeting – Maynooth, Ireland
2016	Longitudinal concondance correlation function based on variance components: an application in fruit color – NUI Galway

❯❯❯ Professional Websites and Apps

Blog	https://prof-thiagooliveira.netlify.app	Link
Github	https://github.com/Prof-ThiagoOliveira	Link
Calculus	https://prof-thiagooliveira.github.io/calculus	Link
IccApp	https://prof-thiagooliveira.shinyapps.io/IccApp	Link

❯❯❯ Fellowship

2020	Science Foundation Ireland	SFI

> ❱ Postdoctoral Researcher in Biostatistics / Coordinator: Prof. Carl Scarrott
> ❱ Project: Early Detection of Secondary Waves of Covid-19 Infections
> ❱ Project Funding: €32,618

2020   Science Foundation Ireland   SFI

> ❱ Postdoctoral Researcher in Biostatistics / Coordinator: Prof. John Newell
> ❱ Project: Aspire Academy research collaboration project
> ❱ Project Funding: €20,000

2019   Science Foundation Ireland   SFI

> ❱ Postdoctoral Researcher in Biostatistics / Coordinator: Prof. John Newell
> ❱ Project: Development of statistical model with application in athlete performance
> ❱ Project Funding: €12,417,097

2018-2019   Coordination of Improvement of Higher Education Personnel   CAPES

> ❱ Postdoctoral Researcher / Coordinator: Prof^a. Clarice G. B. Demétrio
> ❱ Project: Estimation of Longitudinal Concordance Correlation Function: The lcc package
> ❱ Grants awarded: approximately £7,000

2014-2017   National Council for Scientific and Technological Development   CNPq

> ❱ 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

2012-2013   Coordination of Improvement of Higher Education Personnel   CAPES

> ❱ Master / Advisor: Prof. Silvio Sandoval Zocchi
> ❱ Project: Mixed effects models applied to hue peel color of papaya (Carica papaya L.) cv. "Sunrise Solo" measured over time using an scanner and a colorimeter
> ❱ Grants awarded: approximately £15,082

2011   São Paulo Research Foundation   FAPESP

> ❱ Scientific initiation / Advisor: Prof. Silvio Sandoval Zocchi
> ❱ Process number: 2010/16955-1
> ❱ Grants awarded: approximately £3,000

❱❱❱ References

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