

# Rodrigo Rampazo Amadeu

University of Florida  
Horticultural Sciences Department  
2550 Hull Rd  
Gainesville, FL, U.S.A.

email: [rramadeu@ufl.edu](mailto:rramadeu@ufl.edu)  
URL: <https://rramadeu.github.io/>  
Nationality: Brazilian

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## Current position

**Graduate Research Assistant**, [Blueberry Breeding & Genomics Lab](#), University of Florida  
*Analysis of genomic and agricultural data & development of Statistical-Genetics software*

## Education

Current	Ph.D. student in Horticultural Sciences, IFAS, University of Florida, USA Advisor Dr. Patricio Munoz, <a href="#">Blueberry Breeding &amp; Genomics Lab</a>
2018	M.S. in Plant Genetics and Breeding, ESALQ, University of São Paulo, Brazil Advisor Dr. Antonio Augusto Franco Garcia, <a href="#">Statistical-Genetics Lab</a>
2016	B.ENG. in Agriculture, ESALQ, University of São Paulo, Brazil Advisor Dr. Antonio Augusto Franco Garcia, Minor: Biotechnology
2016	B.EDU. in Agricultural Sciences, ESALQ, University of São Paulo, Brazil

## Awards & Scholarships

2020	Scholarship, Murial Rumsey Scholarship, CALS, University of Florida
2019	Scholarship, Outstanding Teaching Assistanship, University of Florida
2019	Award, Poster Competition Plant Science Symposium, University of Florida - 1 <sup>st</sup> Place Winner
2016	Award, Prof Friedrich Gustav Brieger Prize - Best graduating student of Department of Genetics
2013	Scholarship, Science without Borders - CAPES - 1yr at University of Florida
2012	Scholarship, Scientific Initiation - PIBIC/CNPq - 1yr
2011	Scholarship, Scientific Initiation - Santander - 1yr

## Journal Articles

### PREPRINTS

2020	<b>Amadeu, RR</b> ; Munoz, R; Zheng, C; Endelman, JB. "QTL Mapping in Outbred Tetraploid (and Diploid) Diallel Populations". <i>bioRxiv</i> 2020.12.18.423479, <a href="#">link</a>
2020	Zheng, C; <b>Amadeu, RR</b> ; Munoz, R; Endelman, JB. "Haplotype Reconstruction in Connected Tetraploid F1 Populations". <i>bioRxiv</i> 2020.12.18.423519, <a href="#">link</a>
2020	Gazaffi, R; <b>Amadeu, RR</b> ( <i>co-first author</i> ); Mollinari, M; Rosa, JRBF; Taniguti, CH; Margarido, GRA; Garcia, AAF. "fullsibQTL: an R package for QTL mapping in biparental populations of outcrossing species". <i>bioRxiv</i> 2020.12.04.412262, <a href="#">link</a>

## PEER-REVIEWED

- 2020 Cappai, F; **Amadeu, RR** (co-first author); Benevenuto, J; Cullen, R; Garcia, AL; Grossman, AY; Ferrão, LFV; Munoz, PR. "High-resolution linkage map and QTL analyses of fruit firmness in autotetraploid blueberry". *Front. Plant Sci.*, 11(532171), [link](#)
- 2020 de Bem Oliveira, I; **Amadeu, RR**; Ferrão, LFV; Munoz, PR. "Optimizing whole-genomic prediction for autotetraploid blueberry breeding". *Heredity*, 125, [link](#)
- 2020 **Amadeu, RR**; Lara, LADC; Munoz, PR; Garcia, AAF. "Estimation of molecular pairwise relatedness in autopolyploid crops". *G3*, 10(12), [link](#)
- 2020 de Oliveira, AA; Resende, MFR; Ferrão, LFV; **Amadeu, RR**; Guimarães, LJM; Guimarães, CT; Pastina, MM; Margarido, GRA. "Genomic prediction applied to multiple traits and environments in second season maize hybrids". *Heredity*, 125, [link](#)
- 2020 **Amadeu, RR**; Ferrão, LFV; de Bem Oliveira, I; Benevenuto, J; Endelman, JB; Munoz, PR. "Impact of dominance effects on autotetraploid genomic prediction". *Crop Science*, 60(2), [link](#)
- 2019 Estrada-Reyes, ZM; Tsukahara, Y; **Amadeu, RR**; Goetsch, AL; Gipson, TA; Sahlu, T; Puchala, R; Wang, Z; Hart, ST; Mateescu, RG. "Signatures of selection for resistance to *Haemonchus contortus* in sheep and goats". *BMC Genomics*, 20(1), [link](#)
- 2019 Lara, LADC; Santos, MF; Jank, L; Chiari, L; Vilela, MDM; **Amadeu, RR**; dos Santos, JP; Pereira, GDS; Zeng, ZB; Garcia, AAF. "Genomic selection with allele dosage in *Panicum maximum* Jacq.". *G3*, 9(8) [link](#)
- 2019 Benevenuto, J; Ferrão, LFV; **Amadeu, RR**; Munoz, P. "How can a high-quality genome assembly help plant breeders?". *GigaScience*, 8(6), [link](#)
- 2019 de Bem Oliveira, I; Resende Jr, MFR; Ferrao, LFV; **Amadeu, RR**; Endelman, JB; Kirst, M; Coelho, ASG; Munoz, PR. "Genomic prediction of autotetraploids; influence of relationship matrices, allele Dosage, and continuous genotyping calls in phenotype prediction". *G3*, 9(4), [link](#)
- 2018 Conson, ARO; Taniguti, CH; **Amadeu, RR** (co-first author); Andreotti, IAA; de Souza, LM; dos Santos, LHB; Rosa, JRBF; Mantello, CC; da Silva, CC; Scaloppi Jr, EJ; Ribeiro, RV; Le Guen, V; Garcia, AAF; Gonçalves, PS; Souza, AP. "High-resolution genetic map and QTL analysis of growth-related traits of *Hevea brasiliensis*". *Front. Plant Sci.*, 9(1255), [link](#)
- 2018 Ferreira, DA; Abreu, GF; Cheavegatti-Gianotto, A; Soldi, MCM; Carneiro, MS; **Amadeu, RR**; Hoffmann, HP; Aricetti, JA; Wolf, LD; Caldana, C. "Metabolite profiles of sugarcane culm reveal the relationship among metabolism and axillary bud outgrowth in genetically related sugarcane commercial cultivars". *Front. Plant Sci.*, 9(857), [link](#)
- 2018 Cellon, C; **Amadeu, RR**; Olmstead, JW; Mattia, MR; Ferrao, LFV; Munoz, PR. "Estimation of genetic parameters and prediction of breeding values in an autotetraploid blueberry breeding population with extensive pedigree data". *Euphytica*, 214(87), [link](#)
- 2016 **Amadeu, RR**; Cellon, C; Olmstead, JW; Garcia, AAF; Resende, MF; Munoz, PR. "AGHmatrix: R package to construct relationship matrices for autotetraploid and diploid Species, a blueberry example". *The Plant Genome*, 9(3), [link](#)

## Presentations

- 2020 **Amadeu, RR**; Munoz, PR; Chaozhi, Z; Endelman, J. "QTL mapping in autotetraploid multi-parent populations". *The 6<sup>th</sup> International Conference of Quantitative Genetics (ICQG6)*. Virtual conference. Oral session. [link](#)
- 2020 **Amadeu, RR**. "Relationship coefficient in autopolyploid crops". *Graduate Course: Special Topics in Genetics and Breeding*, ESALQ/USP, Piracicaba, Brazil. Invited Speaker.

## Software development

AGHmatrix	author, compute relationship matrices for diploid and autopolyploid species, <a href="#">link</a>
onemap	contributor, build genetic maps in experimental crosses, <a href="#">link</a>
onemap2pop	author, onemap extension to build multi-family genetic maps in outcrossing species, <a href="#">link</a>
fullsibQTL	co-author, QTL mapping in outcrossing species using composite interval mapping, <a href="#">link</a>
diaQTL	co-author, QTL mapping in multiparent and autopolyploid populations, <a href="#">link</a>

## Skills

programming	R (advanced): package development, tidyverse, shiny/plotly app, parallelization
programming	shell/bash script, ASReml, $\LaTeX$
statistics	analysis of genetic & agricultural data
language	Portuguese (native) & English (high proficiency)

## Teaching

2020	TA of Field Plot Techniques, grad level, University of Florida
2019	TA of Molecular Marker Assisted Plant Breeding, grad level, University of Florida
2019	TA of Field Plot Techniques, grad level, University of Florida
2018	TA of Field Plot Techniques, grad level, University of Florida
2015	TA of Calculus I, undergrad level, University of São Paulo
2012	TA of Genetics, undergrad level, University of São Paulo
2011-2015	Algebra instructor in a college prep school

## Leadership

2010-2011	Student representative in the B.Edu. in Agr Sciences Committee, University of São Paulo
2011-2012	Student representative in the B.Eng. in Agriculture Committee, University of São Paulo
2010-2012	Student union member, University of São Paulo