

Marwin M I B Carmo

✉ mmcarmo@ucdavis.edu 🌐 [marwincarmo.github.io](https://github.com/marwincarmo) 🌐 [marwincarmo](https://www.marwincarmo.com) | Updated: March 28, 2026

EDUCATION

Ph.D. Student in Quantitative Psychology

University of California, Davis

Advisor: [Dr. Philippe Rast](#) Research interests: Bayesian inference, Intra-individual variability, Mixed-effects location scale models, Gaussian graphical models, Item Response Theory.

Expected June 2028

Davis, CA

M.Sc. in Psychiatry

University of Sao Paulo

Advisor: [Dr. Renatha El-Rafihy Ferreira](#)

2021–2023

Sao Paulo, Brazil

Bachelor in Psychology

Rio de Janeiro State University

2014–2019

Rio de Janeiro, Brazil

Bachelor of Technology in Chemical Processes

Federal Institute of Education, Science and Technology

2008–2013

Rio de Janeiro, Brazil

PUBLICATIONS

Peer-reviewed

* denotes shared first authorship

1. **Carmo, M.**, Williams, D., & Rast, P. (2026). Beyond Average Scores: Identification of Consistent and Inconsistent Academic Achievement in Grouping Units. *Journal of Educational and Behavioral Statistics*. <https://doi.org/10.3102/10769986261426004>
2. Ingram, E. O., **Carmo, M.**, Rast, P., Manderino, L., & Karr, J. E. (2026). An Exploratory Analysis and Comparison of Post-Concussion Symptom Networks in Young Adults with and without a Remote History of Concussion. *Archives of Clinical Neuropsychology*. <https://doi.org/10.1093/arclin/acag009>
3. *Rafihy-Ferreira, R., **Carmo, M.**, Paulos-Guarnieri, L., & Pires, M. L. N. (2026). The Sleep Acceptance Scale (SAS): Development, psychometric properties, and applications. *Behavioral Sleep Medicine*. <https://doi.org/10.1080/15402002.2025.2555864>
4. Conway, B. A., **Carmo, M.**, Filho, H. S. L. S., Alves, M. M., Hasan, R., Toscanini, A. C., & Rafihy-Ferreira, R. (2025). Personality traits and insomnia: direct and anxiety-mediated associations. *Journal of Sleep Research*. <https://doi.org/10.1111/jsr.70003>
5. **Carmo, M.**, Linares, I. M. P., Paulos-Guarnieri, L., Pires, M. L. N., Bothelius, K., & Rafihy-Ferreira, R. (2025). Psychometric examination of the Sleep Problems Acceptance Questionnaire with a Brazilian sample: Insights on validity and measurement invariance. *Trends in Psychiatry and Psychotherapy*. <http://dx.doi.org/10.47626/2237-6089-2025-1136>
6. Rafihy-Ferreira, R., Hasan, R., Toscanini, A. C., Linares, I. M. P., Borges, D. S., Brasil, I. P., **Carmo, M.**, Neto, F. L., & Morin, C. (2024). Acceptance and commitment therapy versus cognitive behavioral therapy for insomnia: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*. <https://doi.org/10.1037/ccp0000881>
7. **Carmo, M. M. I. B.**, Leme, V. B. R., Quiterio, P. L. (2024). Social skills and people with disabilities: overview of Brazilian research. *Psicologia Escolar e Educacional*. <https://doi.org/10.1590/2175-35392024-246235-T>
8. Rafihy-Ferreira, R., **Carmo, M. M. I. B.**, Bassoli, L., Hasan, R., Aizawa, I. M. I., & Toscanini, A. C. (2022). Cognitive and psychological factors associated with severe insomnia in Brazilian women: A cross-sectional study. *Psicologia: Reflexão e Crítica*. <https://doi.org/10.1186/s41155-022-00243-x>
9. Rafihy-Ferreira, R., **Carmo, M. M. I. B.**, Bassoli, L., Hasan, R., Aizawa, I. M. I., & Toscanini, A. C. (2022). Cognitive and psychological factors associated with severe insomnia in Brazilian women: A cross-sectional study. *Psicologia: Reflexão e Crítica*. <https://doi.org/10.1186/s41155-022-00243-x>

10. Ferreira, W. H., **Carmo, M. M. I. B.**, Silva, A. L. N., Andrade, & C. T. (2014). Effect of structure and viscosity of the components on some properties of starch-rich hybrid blends. *Carbohydrate Polymer*. <http://dx.doi.org/10.1016/j.carbpol.2014.10.018>

Pre-prints

1. **Carmo, M.**, Morin, C. M., Hasan, R., Toscanini, A. C., & Rafihi-Ferreira, R. *The network of dysfunctional beliefs about sleep: a structural re-analysis of the DBAS-16*. [[preprint](#)]

Book chapters

1. Linares, I. M. P., **Carmo, M.** (2024). Evaluation and Retrospective Measurements. In: El Rafihi-Ferreira, R. (eds) *Acceptance and Commitment Therapy for Insomnia*. Springer, Cham. https://doi.org/10.1007/978-3-031-50710-6_8

Blogs

1. **Carmo, M. M. I. B.** (2022). Simulating post selection inference. [[post](#)]
2. **Carmo, M. M. I. B.** (2021). Regression Artifact - Re-running Farmus et. al (2019). [[post](#)]

PRESENTATIONS

Talks

1. **Carmo, M.** & Rast, P. (2025). Prior sensitivity in Bayesian structure learning of Gaussian Graphical Models. *90th Annual Meeting of the Psychometric Society*, Minneapolis, MN, USA.
2. Rafihi-Ferreira, R., Linares, I. M. P., Toscanini, A. C., Hasan, R., Borges, D. S., Brasil, I. S. P. S., Zago, J. H., **Carmo, M.**, Neto, F. L., & Morin, C. (2023). Randomized Controlled Trial of Acceptance and Commitment Therapy and Cognitive Therapy for insomnia. *2023 ACBS World Conference*, Nicosia, Cyprus.
3. **Carmo, M.** (2022). Understanding model selection bias via simulation. *VI International Seminar on Statistics with R*, Online. [[slides](#)][[video](#)]
4. **Carmo, M.** & Rafihi-Ferreira, R. (2022). A network approach of Insomnia and Dysfunctional Beliefs and Attitudes About Sleep. *VII Congresso Clínica Psiquiátrica*, São Paulo, Brazil. **Recipient of Best Oral Presentation Award** [[slides](#)]

Posters

1. Ingram, E. O., **Carmo, M.**, Manderino, L., Rast, P., Karr, J. E. (2025, March). A network approach to post-concussion symptoms: Comparing central symptoms between young adults with and without concussion history. *World Congress on Brain Injury by the International Brain Injury Association*, Montreal, Canada.
2. Ingram, E. O., **Carmo, M.**, Manderino, L., Rast, P., Karr, J. E. (2025, February). Network centrality of post-concussion symptoms in young adults with and without a remote history of concussion. *Annual Rehabilitation Psychology Conference*, Louisville, Kentucky, USA.
3. **Carmo, M.**, Williams, D. R., & Rast, P. (2024). A holistic view of academic performance: beyond averages with MELSM and spike- and-slab. *89th Annual Meeting of the Psychometric Society*, Prague, Czech Republic. [[poster](#)]
4. **Carmo, M.**, Linares, I. M. P., Paulos-Guarnieri, L., Pires, M. L. N., & Rafihi-Ferreira, R. (2022). Development of the Sleep Acceptance Scale (SAS). *XIX Congresso Brasileiro de Sono*, Goiania, Brazil.
5. **Carmo, M.** & Rafihi-Ferreira, R. (2022). Network structure of acceptance of sleep difficulties and insomnia. *VII Congresso Clínica Psiquiátrica*, São Paulo, Brazil. [[poster](#)]
6. Conway, B. A., **Carmo, M. M. I. B.**, Toscanini, A. C., Hasan, R., & Rafihi-Ferreira, R. (2021). Personality Traits in Adults with Chronic Insomnia. *XVIII Congresso Brasileiro de Sono*, São Paulo, Brazil.
7. Cunha, R. R. B., Trigo, L. O., **Carmo, M. M. I. B.**, Rafihi-Ferreira, R. & Toscanini, A. C. (2021). Chronotype Influence on the Sleep Pattern and Physical/Academic Performance of Medical Students in the State of São Paulo, Brazil. *XVIII Congresso Brasileiro de Sono*, São Paulo, Brazil.

8. Trigo, L. O., Cunha, R. R. B., **Carmo, M. M. I. B.**, Rafihi-Ferreira, R. & Toscanini, A. C. (2021). Sleep Pattern, Cellphone Use, and Grade Point Average in São Paulo Medical Students. *XVIII Congresso Brasileiro de Sono*, São Paulo, Brazil.
9. **Carmo, M. M. I. B.** & Rafihi-Ferreira, R. (2021) The association between sleep-related cognitions, psychological flexibility, and insomnia symptoms. *XVIII Congresso Brasileiro de Sono*, São Paulo, Brazil. **Recipient of Top Posters Award** [poster] [abstract]

SOFTWARE

1. **ivd: Individual Variance Detection.** An R package for random effects selection in the scale part of Mixed Effects Location Scale Models using a spike-and-slab prior on the random effects. [CRAN]
2. **Model selection app.** A Shiny app designed for performing simulations of statistical inferences after model selection procedures. [App] [Github repo]
3. **Brazilian Research Funding app.** In this app I explore the open database of the National Council for Scientific and Technological Development (CNPq), a Brazilian Government research funding agency. [App] [Github repo]

RESEARCH EXPERIENCE

| | |
|---|---|
| Doctoral Researcher <i>University of California, Davis</i> | September 2023–Present <i>Davis, CA</i> |
| Graduate Student Researcher <i>University of São Paulo</i> Conducted psychometric scale development, network analysis, and statistical modeling of randomized controlled trial data. | June 2021–June 2023 <i>São Paulo, Brazil</i> |
| Research Assistant <i>Rio de Janeiro State University</i> Conducted a systematic review, performed statistical analyses, and led introductory statistics workshops. | August 2019–August 2020 <i>Rio de Janeiro, Brazil</i> |
| Research Assistant <i>Rio de Janeiro State University</i> Supported data collection, management, analysis, and manuscript writing. | July 2017–July 2019 <i>Rio de Janeiro, Brazil</i> |
| Research Assistant <i>Federal University of Rio de Janeiro</i> Conducted undergraduate research on biopolymer blends resulting in a peer-reviewed publication. | June 2011–July 2013 <i>Rio de Janeiro, Brazil</i> |

TEACHING EXPERIENCE

| | |
|---|---|
| Teaching Assistant <i>University of California, Davis</i> | September 2023–Present <i>Davis, CA</i> |
| • †PSC205H: Applied Bayesian Statistics for Social Scientists Data <i>Dr. Philippe Rast</i> | Spring 2026 |
| • †PSC204B: Causal Modeling of Correlational Data <i>Dr. Philippe Rast</i> | Winter 2026 |
| • †PSC204A: Statistical Analysis of Psychological Experiments <i>Dr. Emilio Ferrer</i> | Fall 2025 |
| • PSC142: General Psychology <i>Dr. Paul Hastings</i> | Spring 2025 |
| • PSC103B: Statistical Analysis of Psychological Data <i>Dr. Philippe Rast / Dr. Mijke Rhemtulla</i> | Winter '24/Spring '24/Winter '25 |
| • PSC012Y: Data Visualization in the Social Sciences <i>Dr. Jonathan Park</i> | Fall 2024 |

- PSC001: General Psychology
Dr. Kelly King

Fall 2023

†Graduate-level course

WORK EXPERIENCE

Instructional support

Psicometria Online Academy

May 2022–October 2024

Rio de Janeiro, Brazil (*remote*)

Statistical Consultant

PsicoDados

January 2022–December 2022

Rio de Janeiro, Brazil (*remote*)

COMMUNITY ENGAGEMENT

Measuring Psychology Study Group and Community

Founder and facilitator

February 2022–October 2023

Online

- Created a global community of 200+ members interested in discussions, collaborations, and networking in the field of measurement in the human sciences;
- Organized bi-weekly meetings and led study sessions on measurement theory;
- Orchestrated invited presentations by renowned scholars like Dr. Derek C. Briggs, Dr. Laura F. Bringmann, Dr. Markus I. Eronen, Dr. Alexander Christensen, Dr. James Grice, and others.

SKILLS

Programming

- R: exploratory data analysis, data cleaning, data visualization, statistical data analyses, programmatic reporting (R Markdown/ Quarto), web scraping, dashboards, packages development, Shiny apps development.
- Stan / JAGS: Bayesian model specification and MCMC estimation.
- Python, Bash.

Tools

- Statistical software: R, Stan, JAGS, Python.
- Reporting: RMarkdown, Quarto, \LaTeX
- Computing: HPC cluster computing (SLURM), Git/GitHub, Linux.
- Data collection and management: REDCap

RELEVANT COURSEWORK AND EXPERIENCE

Multivariable Calculus

Longitudinal Data Analysis

Monte Carlo Simulations

Linear Algebra

Structural Equation Modeling

Network Analysis

Probability Theory

Bayesian Statistics

Data Visualization

Machine Learning

Multilevel Models

Data Cleaning and Management

AWARDS

- **Summer Research Fellowship** Summer 2026
UC Davis Psychology Graduate Program
- **Dukes Travel Award** Spring 2025
UC Davis Psychology Graduate Program
- **Early Graduate Career Fellowship** Spring 2025
UC Davis Psychology Graduate Program
- **Master's Research Scholarship** June 2021–June 2023
São Paulo Research Foundation (FAPESP)
- **Training and Technical Qualification** August 2019–August 2020
Rio de Janeiro Research Foundation (FAPERJ)
- **UERJ Funding for undergraduate research** July 2017–July 2019
Rio de Janeiro State University