# Filippo Gambarota, PhD

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Last Update: December 4, 2024

I am a **postdoctoral researcher** in Psychometrics (SSD: PSIC-01/C, ex M-PSI/03) at the University of Padova, Department of Developmental Psychology and Socialization (DPSS) and **licensed clinical psychologist**.

# **Research interests:**

- Meta-analysis
- Monte Carlo simulations for power and design analysis
- Multiverse analysis
- · Statistical methods for replicability assessment

# **CURRENT POSITION**

# Post-doctoral researcher (2 year research grant - type B)

2024 - ongoing

Department of Developmental Psychology and Socialization, University of Padova, Italy

**Project:** Multiverse meta-analysis (PSIC-01/C ex M-PSI/03)

Supervisor: Prof. Gianmarco Altoè

# **ACADEMIC ROLES**

# Expert (Cultore della Materia) of Psychometrics (PSIC-01/C ex M-PSI/03)

2023 - ongoing

Department of Developmental Psychology and Socialization, University of Padova, Italy

# **RESEARCH**

# Post-doctoral researcher (1 year research grant - type B)

2023 - 2024

Department of Developmental Psychology and Socialization, University of Padova, Italy **Project:** Multiverse meta-analysis (PSIC-01/C ex M-PSI/03) Supervisor: Prof. Gianmarco Altoè

# **ABROAD**

# Visiting Scholar (1 month, November-ongoing) Dana Farber Cancer Institute, Harvard University, Boston Research project about replicability in Psychology and Biomedical sciences. Supervisor: Professor Giovanni Parmigiani Visiting PhD student (6 months, June-December) University of Tel-Aviv, Israel Research project about the relationship between Working Memory and Consciousness Supervisor: Professor Roy Luria

### **EDUCATION**

**PhD in Psychological Sciences** 2019 - 2023 University of Padova, Italy **Project:** The relationship between visual working memory and consciousness. Supervisor: Professor Paola Sessa, Co-supervisor: Professor Massimiliano Pastore 2020 **Licensed Psychologist (Esame di Stato)** University of Padova, Italy Title obtained on the second session Internship 2018 - 2019 Department of Developmental Psychology and Socialization - University of Padova Research project about visual consciousness and sensorimotor simulation Research project about social cognition during pregnancy Supervision of internship students in EEG laboratory 2018 M.S. in Clinical Developmental Psychology - 110 cum laude University of Padova, Italy Thesis: Visual Working Memory representations of infant faces during pregnancy as an adaptive mechanism. An EEG study. Supervisor: Professor Paola Sessa Internship 2018 Department of Developmental Psychology and Socialization - University of Padova Research project about social cognition during pregnancy with EEG data collection B.S. in Psychology - 110 cum laude 2016 University of Padova, Italy Thesis: Psychosocial well-being of adolescents with oncoemathological disease. Supervisor: Professor Ughetta Moscardino Internship 2016 Hospital of Padova - Pediatrics Oncology Educational activities with in-patients children and their families Research about the psychosocial well-being of in-patients adolescents Discussing about clinical cases in regular supervisions **TRAINING** Meta-Analysis with Metafor (3 days) 2021 Maastricht University Intensive course about meta-analysis with the metafor package held by Professor Wolfgang Viechtbauer **Bayesian Regression Modeling with BRMS (5 days)** 2020 Potsdam University Summer School in Bayesian Statistics for Cognitive Psychology Bayesian Statistical Analyses for the Human, Social and Cognitive Sciences (5 days) 2019 University of Verona

# **AWARDS**

# Award for the best scientific article of 2024 - Italian Psychological Association (AIP), Developmental and Educational Psychology

2024

The paper Montuori, C., Gambarota, F., Altoé, G., & Arfé, B. (2023). The cognitive effects of computational thinking: A systematic review and meta-analytic study. Computers & Education, 210(104961), 104961. https://doi.org/10.1016/j.compedu.2023.104961 won the award for the best scientific article of 2024, by the Italian Psychological Association (AIP), Developmental and Educational Psychology

# Reproducibility Award - Italian Reproducibility Network (ITRN)

2024

I won the Reproducibility Award from the Italian Reproducibility Network (ITRN) for the paper: Gambarota, F., & Altoè, G. (2024). Understanding meta-analysis through data simulation with applications to power analysis. Adv. Methods Pract. Psychol. Sci., 7(1). https://doi.org/10.1177/25152459231209330

Mission Award to Psicostat by the Society for the Improvement of Psychological Science (SIPS)

As an active member of the Psicostat research group (https://improvingpsych.org/mission/awards/)

### **TEACHING**

[planned] means that the course has been officially scheduled but not delivered yet

# > PHD

# Generalized Linear Models [planned] (15 hrs., 3 CFU)

2025

University of Padova

Professor for the course within the PhD program in Psychological Sciences, University of Padova

# Crafting effective scientific presentations [planned] (5 hrs., 1 CFU)

2025

University of Padova

Professor for the course within the PhD program in Psychological Sciences, University of Padova

# Replicability crisis in science? (5 hrs.)

2024

University of Padova

Specialist Course for the XXXIX Cycle of the PhD course in Statistics, Department of Statistical Sciences, University of Padova

# **Generalized Linear Models - PhD Course in Psychological Sciences (15 hrs.)**

2023

University of Padova

I held the Generalized Linear Models course (Part A and B) within the PhD program in Psychological Sciences, University of Padova

# > LECTURES ON CONTRACT (DOCENZE A CONTRATTO)

# Psicometria per le Neuroscienze Cognitive [planned] (44 hrs., 6 CFU)

2025

University of Padova

Professor (titolare del corso) for the Master's degree in Statistical Sciences, Department of Statistical Sciences, University of Padova

# **Statistical Methods and Data Analysis**

2023

in Developmental Psychology

[PSIC-01/C ex M-PSI/03] (21 hrs., 3 CFU)

University of Padova

Lecturer (titolare di modulo) for the Master's degree in Developmental and Educational Psychology, University of Padova

# > SEMINARS

Introduction to R 2021 - ongoing

University of Padova

Intensive course about programming in R as part of the ARCA (Applied Research Course Academy) courses, Department of Developmental Psychology and Socialization, University of Padova

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- Marzo 2024 (20 hrs.)
- Marzo 2023 (20 hrs.)
- Novembre 2022 (20 hrs.)
- Ottobre 2021 (20 hrs.)

# > INTEGRATIVE TEACHING (DIDATTICA INTEGRATIVA)

# Data Analysis in Developmental Psychology [PSIC-01/C ex M-PSI/03]

2022 - 2023

University of Padova

Lectures about R programming and data analysis of the course "Data Analysis in Developmental Psychology" (Prof. Massimilano Pastore), Master's degree in Psychology of Community, Wellness Promotion, and Social Change, University of Padova

- Marzo 2023 (15 hrs.)
- Marzo 2022 (20 hrs.)

# Psychological Testing [PSIC-01/C ex M-PSI/03] (14 hrs.)

2022

University of Padova

Lectures about R programming and data analysis of the course "Psychological Testing" (Prof. Gianmarco Altoè), Bachelor's degree in Developmental, Personality and Interpersonal Relationships Psychology, University of Padova

# > METHODOLOGICAL SCHOOLS

# Replicability Crisis in Science? (5 hrs.)

2023

University of Padova

I held a series of workshops about statistical methods to assess replicability during the summer school Replicability Crisis in Science? organized at the Department of Statistical Sciences (University of Padova)

# > LECTURES

# Introduction to Visual Consciousness [M-PSI/01] (2 hrs.)

2021

University of Padova

Lecture during the course "General Psychology" (Prof. Roberto Dell'Acqua), Bachelor's degree in Developmental, Personality and Interpersonal Relationships Psychology, University of Padova



# Visual Working Memory in Social Cognition [M-PSI/01] (2 hrs.)

2021

University of Padova

Lecture during the course "General Psychology" (Prof. Paola Sessa), Bachelor's degree in Techniques and Methods in Psychological Science, University of Padova



# Neural Correlates of Consciousness [M-PSI/01] (2 hrs.)

2020 - 2023

University of Padova

I regularly held a two hours lecture during the course "Mechanism of Consciousness" (Prof. Roberto Dell'Acqua), Master's degree in Applied Cognitive Psychology, University of Padova



# **SUPERVISION**

- I have co-supervised **7 Master's degree** dissertations and **2 Bachelor's degree** dissertations (Department of Developmental Psychology and Socialization, University of Padova, Italy).
- From 2017 to 2019 I supervised and coordinated the students during EEG training in the laboratory (Department of Developmental Psychology and Socialization, University of Padova, Italy)

### **PUBLICATIONS**

Journal impact factors and quartiles are taken from Journal Citation Reports considering the last available data

I published 14 papers on journals with an average impact factor of 5.2. In terms of quartiles, I published 11 papers in Q1 journals (78.57%), 3 papers in Q2 journals (21.43%).

# Google Scholar

Last Update: 2024-12-04

contains preprints, conference proceedings and redundant articles

H-index: 7Citations: 127

• Number of articles: 28

# Scopus

Last Update: 2024-12-04

H-index: 5Citations: 55

• Number of articles: 14

# Web of Science

Last Update: 2024-12-04

H-index: 5Citations: 54

• Number of articles: 14

# > PUBLISHED (14)

Among the 14 publications, I have 4 first-author papers and 3 papers with the role of corresponding author.

- 1. Del Popolo Cristaldi, F., Buodo, G., **Gambarota** F., Oosterwijk, S., & Mento, G. (2024). How previous experience shapes future affective subjective ratings: A follow-up study investigating implicit learning and cue ambiguity. *PloS One*, *19*, e0297954. https://doi.org/10.1371/journal.pone.0297954

  [IF: 2.9, Quartile: Q1]
- 2. Di Rosa, E., Masina, F., Pastorino, A., Galletti, E., **Gambarota** F., Altoè, G., Edelstyn, N., & Mapelli, D. (2024). Mood moderates the effects of prefrontal tDCS on executive functions: A meta-analysis testing the affective state-dependency hypothesis. *Journal of Affective Disorders*, *351*, 920–930. https://doi.org/10.1016/j.jad.2024.02.009

[IF: 4.9, Quartile: Q1]

3. <sup>c</sup> **Gambarota** F., & Altoè, G. (2024). Ordinal regression models made easy: A tutorial on parameter interpretation, data simulation and power analysis. *International Journal of Psychology*.

https://doi.org/10.1002/ijop.13243

[IF: 3.3, Quartile: Q1]

c means that I am the corresponding author

 Gambarota F., & Altoè, G. (2024). Understanding meta-analysis through data simulation with applications to power analysis. Advances in Methods and Practices in Psychological Science, 7. https://doi.org/10.1177/25152459231209330

[IF: 15.6, Quartile: Q1]

 Maffei, A., Gambarota F., Liotti, M., Dell'Acqua, R., Tsuchiya, N., & Sessa, P. (2024). Conscious perception of fear in faces: Insights from high-density EEG and perceptual awareness scale with threshold stimuli. Cortex, 174, 93–109. https://doi.org/10.1016/j.cortex.2024.02.010
 [IF: 3.3, Quartile: Q1]

Pezzetta, R., Gambarota F., Tarantino, V., Devita, M., Cattaneo, Z., Arcara, G., Mapelli, D., & Masina, F. (2024). A meta-analysis of non-invasive brain stimulation (NIBS) effects on cerebellar-associated cognitive processes. *Neuroscience and Biobehavioral Reviews*, 157, 105509.

https://doi.org/10.1016/j.neubiorev.2023.105509

[IF: 7.6, Quartile: Q1]

7. Toffalini, E., **Gambarota** F., Perugini, A., Girardi, P., Tobia, V., Altoè, G., Giofrè, D., Psicostat Core Team, & Feraco, T. (2024). Clusters that are not there: An r tutorial and a shiny app to quantify a priori inferential risks when using clustering methods. *International Journal of Psychology*.

https://doi.org/10.1002/ijop.13246

[IF: 3.3, Quartile: Q1]

 Del Popolo Cristaldi, F., Gambarota F., & Oosterwijk, S. (2023). Does your past define you? The role of previous visual experience in subjective reactions to new affective pictures and sounds. *Emotion*, 23, 1317–1333. https://doi.org/10.1037/emo0001168

[IF: 3.4, Quartile: Q1]

 Montuori, C., Gambarota F., Altoé, G., & Arfé, B. (2023). The cognitive effects of computational thinking: A systematic review and meta-analytic study. Computers & Education, 210, 104961.

https://doi.org/10.1016/j.compedu.2023.104961

[IF: 8.9, Quartile: Q1]

 Quettier, T., Maffei, A., Gambarota F., Ferrari, P. F., & Sessa, P. (2023). Testing EEG functional connectivity between sensorimotor and face processing visual regions in individuals with congenital facial palsy. Frontiers in Systems Neuroscience, 17, 1123221. https://doi.org/10.3389/fnsys.2023.1123221 [IF: 3.1, Quartile: Q2]

11. <sup>c</sup> Gambarota F., Tsuchiya, N., Pastore, M., Di Polito, N., & Sessa, P. (2022). Unconscious visual working memory: A critical review and bayesian meta-analysis. *Neuroscience and Biobehavioral Reviews*, 136, 104618. https://doi.org/10.1016/j.neubiorev.2022.104618
[IF: 7.6, Quartile: Q1]

12. Verroca, A., Rienzo, C. M. de, **Gambarota** F., & Sessa, P. (2022). Mapping the perception-space of facial expressions in the era of face masks. *Frontiers in Psychology*, *13*, 956832.

https://doi.org/10.3389/fpsyg.2022.956832

[IF: 2.6, Quartile: Q2]

13. Quettier, T., **Gambarota** F., Tsuchiya, N., & Sessa, P. (2021). Blocking facial mimicry during binocular rivalry modulates visual awareness of faces with a neutral expression. *Scientific Reports*, *11*, 9972.

https://doi.org/10.1038/s41598-021-89355-5

[IF: 3.8, Quartile: Q1]

14. **Gambarota** F., & Sessa, P. (2019). Visual working memory for faces and facial expressions as a useful "tool" for understanding social and affective cognition. *Frontiers in Psychology*, *10*, 2392. https://doi.org/10.3389/fpsyg.2019.02392

[IF: 2.6, Quartile: Q2]

# > ACCEPTED/IN PRESS (2)

- Grassi, Altoè, Brattico, [...] **Gambarota**, [...] Zentner Do musicians have better short-term memory than nonmusicians? A multi-lab study *Advances in Methods and Practices in Psychological Science* [Registered Replication Report Provisional Acceptance]
- Dimitru, E., [...] **Gambarota**, F., [...] The Pain of Death. A Meta-Analysis of the Association of Death Anxiety with Psychological Distress And Psychopathology *Nature Human Behaviour* [In press]

# **CONFERENCES**

> INVITED TALKS (3) Gambarota [P], F. 2025 **Open Science Starter Pack [planned]** International Winter School 4M - Padova, Italy 2025 Gambarota [P], F., Calignano, G. Multiverse analysis in R: Exploratory and Inferential Approaches [planned] Cognitive Science Arena (CSA) - Bressanone, Italy Gambarota [P], F. and Altoè, G. 2024 Understanding meta-analysis through data simulation with applications to power analysis Cognitive Science Arena (CSA) - Bressanone, Italy > TALKS (14) [P] means that I was the presenting author [accepted] means that the talk has been accepted but not delivered yet 2024 Gambarota [P], F., Vesely, A., Finos, L., Altoè, G. Inference on multiverse meta-analysis META-REP - Munich, Germany Gambarota [P], F., Toffalini, E. 2024 Are most interactions false? The importance of the appropriate distribution and link function with nonnormal data PDF Italian Psychological Association (AIP), Developmental Psychology - Cagliari, Italy Perugini, A., Gambarota, F., Toffalini, E., Sità, L., Lakens, D., Pastore, M., Finos, L. Psicostat, Altoè, G. 2024 Critical effect size values and why to report them Italian Psychological Association (AIP), Developmental Psychology - Noto, Italy Perugini, A., Toffalini, A., Feraco, T., Gambarota, F., Pastore, M., Altoè, G. 2024 Is that a cluster? A practical guide on how to avoid Type I and Type II error Italian Psychological Association (AIP), Experimental Psychology - Noto, Italy Calignano, G., Ceccon, C., Gambarota, F., F., Pacheco, S., Russo, S, Altoé, G., Pastore, M., Valenza, E., 2024 Moscardino, U. Communicative development on the move between Minority and Majority worlds Italian Psychological Association (AIP), Developmental Psychology - Cagliari, Italy 2024 Girardi, P., Vesely, A., Gambarota, F., Altoè, G., Pastore, M., Finos, L. Exploring the Dark Side of the Multiverse: Pitfalls and Possibilities in Applications Association for Applied Statistics (ASA) - Rome, Italy Gambarota [P], F. 2024 Inferenza nella meta-analisi multiverse. Un approccio multivariato basato sulle permutazioni

La Psicometria tra Oggi e Domani: Sfide E Nuovi Orizzonti - Firenze, Italy

Gambarota [P], F.  Cosa accade al di fuori della consapevolezza visiva? [Italian]	2024
Brain Awareness Week - Padova, Italy	
Gambarota [P], F., Luria, R., Sessa, P.  Conscious and unconscious information processing in visual working memory	2022
Italian Psychological Association (AIP) - Padova, Italy	
del Popolo Cristaldi, F., <b>Gambarota</b> , F., Oosterwijk, S. <b>The role of past experience in subjective ratings to affective predictions: cross-modality effects</b> <i>Cognitive Science Arena (CSA) - Bressanone, Italy</i>	2022
del Popolo Cristaldi, F., <b>Gambarota</b> , F., Oosterwijk, S. <b>The role of past visual experience in subjective reactions to new affective pictures and sounds</b> <i>Annual Conference of the Society for Affective Science (SAS) - Virtual</i>	2022
Gambarota [P], F., Tsuchiya, N., Pastore, M. Di Polito, N., Sessa, P.  Meta-analysis in Consciousness Research  Conscious Brain Concepts Workshop - University of Oslo - Virtual	2021
del Popolo Cristaldi, F., <b>Gambarota</b> , F., Oosterwijk, S. <b>The role of previous probabilistic learning on the subjective affective experience</b> <i>Italian Psychological Association (AIP) - Lecce, Italy</i>	2021
Gambarota [P], F., Zandonella Callegher, C., Linkersdörfer, J., Ling, M., Kothe, E. trackdown - Collaborative writing through literate programming in R	2021
Towards Advanced Scientific Knowledge (TASK4) - Virtual	
> POSTERS (9)  [P] means that I was the presenting authors [accepted] means that poster has been accepted but has not taken place yet	
Brosche, K., <b>Gambarota</b> , F., Altoè, G., Rugani, R. <b>Effects of Domestication and Selection for Productivity on Numerical Cognition in Chicks</b> <i>European Conference on Behavioural Biology (ECBB) - Zurich, Switzerland</i>	2024
Gambarota [P], F., Vesely, A., Finos, L., Altoè, G.  Joinmeta - An Inferential approach to multiverse meta-analysis  Society for the Improvement of Psychological Science (SIPS) - Padova, Italy	2023
Rasti, S., <b>Gambarota</b> , F., Altoè, G. <b>Multiverse Meta-Analysis: Proposing an Exploratory Framework</b> Society for the Improvement of Psychological Science - Padova, Italy	2023
del Popolo Cristaldi, F., Gambarota, F., Oosterwijk, S.  Cross-modality effects in affective prediction construction: the role of past visual experience in subjective reactions to new affective pictures and sounds	2022

Pezzetta, R., Gambarota, F., Tarantino, V., Devita, M., Cattaneo, Z., Arcara, G., Mapelli, D., Masina, F.

Probing cerebellar involvement in cognition through neuromodulation: A meta-analysis on the effectiveness of non-invasive cerebellar stimulation

Transcranical Brain Stimulation in Cognitive Neuroscience Workshop - Rovereto, Italy

**Gambarota** [P], F., Zandonella Callegher, C., Linkersdörfer, J., Ling, M., Kothe, E. 2021 trackdown - An R package for collaborative writing and editing

Society for the Improvement of Psychological Science (SIPS) - Virtual

Gambarota [P], F., Zandonella Callegher, C., Linkersdörfer, J., Ling, M., Kothe, E.

trackdown - A simple framework for collaboration in a literate programming workflow

useR - Virtual

Gambarota [P], F., Pastore, Luria, Ferrari, Sessa, P.

Visual Working Memory Precision for Emotional Faces in Moebius Patients

Cognitive Science Arena - Bressanone, Italy

Quettier, T., **Gambarota**, F., Sessa, P.

Look at others' smile: Sensorimotor modulation of visual awareness

Italian Society of Psychophysiology and Cognitive Neuroscience (SIPF) - Ferrara, Italy

# > SYMPOSIA (1)

[P] means that I was the proponent

[accepted] means that symposium has been accepted but has not taken place yet.

Gambarota [P], F., Crepaldi, D., Calignano, G., Finos, L., Scandola, M.

2024

The Multiverse of Multi-labs. Methodological and Statistical Aspects of Multi-Lab and Multiverse Studies

Italian Psychological Association (AIP), Experimental Psychology - Noto, Italy

# **PEER REVIEWS**

# Ad-hoc reviewer for:

- International Journal of Psychology
- PLoS ONE
- Neuroscience of Consciousness

# **ACADEMIC MEMBERSHIPS**

Italian Reproducibility Network (ITRN) from: 2024 - ongoing

The Society for the Improvement of Psychological Science (SIPS) from: 2023 - 2024

Associazione Italiana di Psicologia, Sezione Sperimentale (AIP) from: 2022 - ongoing

Associazione Italiana di Psicologia, Sezione Sviluppo (AIP) from: 2024 - ongoing

# **ORGANIZATION**

# Italian Association of Psychology (AIP)

2022

University of Padova

I was part of the organizing committee of the XXX edition of the Italian Association of Psychology (AIP) conference and editor of the Book of Abstract https://www.padovauniversitypress.it/it/publications/9788869383168

# **MRInference Winter School**

2021

University of Padova

I was part of the organizing committee of the "MRInference: from data to knowledge" winter school organized by the University of Padova

# **THIRD MISSION (TERZA MISSIONE)**

Section written in Italian

Science4all 2024

University of Padova

"Centra il bersaglio: tra misurazione, probabilità e incertezza". Activity organized by the Psicostat Research Group and proposed during the Science4All activity at the University of Padova (27-29th September 2024)

Sito web https://psicostat.dpss.psy.unipd.it/ del gruppo di ricerca multidisciplinare 2023 - ongoing "Psicostat".

Online

Il sito <a href="https://psicostat.dpss.psy.unipd.it/">https://psicostat.dpss.psy.unipd.it/</a> raccoglie e condivide in modo open le attività del gruppo a favore degli utenti interessati [Iris ID: PEN-3397]

Sostenibilità umana: superare la società della performance e immaginare nuovi modelli - by TLON 2023 Padova

Sensibilizzazione di tutto i personale del DPSS relativamente alle tematiche sulla società performante. Si è trattato di un workshop interattivo all'interno del retreat del dipartimento (24th February 2023). La parte teorica è stata aperta alla cittadinanza attraverso la diretta fb, mentre la parte pratica è stata rivolta solo al personale dpss [Iris ID: PEN-2435]

### **RESEARCH GROUPS MEMBERSHIP**

# Psicostat - psicostat.dpss.psy.unipd.it

2019 - ongoing

I am part of the **core team** of Psicostat founded by professors Massimiliano Pastore, Gianmarco Altoè and Livio Finos. We are an interdisciplinary research group working in areas related to quantitative psychology, psychometrics, psychological testing and statistics.

# Colab colab.psy.unipd.it

2019 - ongoing

The CoLab, established at the Department of Developmental Psychology of the University of Padova in the 2000, hosts a variety of research projects, which focus primarily on exploring the functional and neural mechanisms subserving attention and language abilities in human adults.

# **COLLABORATIONS**

A selection of collaborations with scholars outside the School of Psychology (University of Padova)

Daniël Lakens 2024 - ongoing

Eindhoven University of Technology

Improving the reporting of results from psychological studies

Giovanni Parmigiani 2024 - ongoing

Harvard University

Research and teaching projects about replicability in Psychology and Biomedical sciences

Branden Fitelson 2024 - ongoing

Northeastern University

Research and teaching projects about replicability in Psychology and Biomedical sciences

Livio Finos 2023 - ongoing

Department of Statistics, University of Padova

Research projects about inference in multiverse meta-analysis and R packages development

Roy Luria 2021 - ongoing

Tel Aviv University

Research projects about consciousness and working memory

Naotsugu Tsuchiya 2020 - ongoing

Monash University

Research projects about visual consciousness

# **INVOLVEMENT IN RESEARCH GROUPS**

# Research group on Multiverse analysis in generalized linear models and meta-analysis 2023 - ongoing

Member of a national research group about inference in multiverse for GLM and meta-analysis with Gianmarco Altoè (University of Padova), Anna Vesely (University of Bologna) and Livio Finos (University of Padova), Massimiliano Pastore (University of Padova), Paolo Girardi (Ca' Foscari University of Venice). The research group produced the following conference presentations and posters:

- Gambarota, F., Vesely, A., Finos, L., Altoè, G. (2024). Inference on multiverse meta-analysis. META-REP. Munich, Germany.
- Girardi, P., Vesely, A., **Gambarota**, F., Altoè, G., Pastore, M., Finos, L. (2024). *Exploring the Dark Side of the Multiverse: Pitfalls and Possibilities in Applications*. Association for Applied Statistics (ASA). Rome, Italy.

- Gambarota, F. (2024). Inferenza nella meta-analisi multiverse. Un approccio multivariato basato sulle permutazioni. La Psicometria tra Oggi e Domani: Sfide E Nuovi Orizzonti. Firenze, Italy.
- **Gambarota**, F., Vesely, A., Finos, L., Altoè, G. (2023). *Joinmeta An Inferential approach to multiverse meta-analysis*. Society for the Improvement of Psychological Science (SIPS). Padova, Italy.

# Research group working on tutorials about statistical methods in Psychology

2023 - ongoing

Member of a national research group with the aim of writing tutorial for common and widely used statistical methods in Psychology. Main group members are Gianmarco Altoè (University of Padova), Enrico Toffalini (University of Padova) and other members from the Psicostat research group. We produced the following papers:

- **Gambarota** F., & Altoè, G. (2024). Ordinal regression models made easy: A tutorial on parameter interpretation, data simulation and power analysis. *International Journal of Psychology*. https://doi.org/10.1002/ijop.13243
- Gambarota F., & Altoè, G. (2024). Understanding meta-analysis through data simulation with applications to power analysis. *Advances in Methods and Practices in Psychological Science*, 7. https://doi.org/10.1177/25152459231209330
- Toffalini, E., **Gambarota** F., Perugini, A., Girardi, P., Tobia, V., Altoè, G., Giofrè, D., Psicostat Core Team, & Feraco, T. (2024). Clusters that are not there: An r tutorial and a shiny app to quantify a priori inferential risks when using clustering methods. *International Journal of Psychology*. https://doi.org/10.1002/ijop.13246

# Research group on visual consciousness and visual working memory

2019 - ongoing

Member of an international research group about visual consciousness for emotions and the relationship between visual working memory and consciousness. The principal investigators are Paola Sessa (University of Padova) and Naotsugu Tsuchiya (Monash University, Australia; **tLab** research group). Other members of the research group are: Antonio Maffei (University of Padova), Roy Luria (University of Tel Aviv, Israel), Roberto Dell'Acqua (University of Padova), Thomas Quettier (University of Bologna). The collaboration produced the following publications:

- Maffei, A., Gambarota F., Liotti, M., Dell'Acqua, R., Tsuchiya, N., & Sessa, P. (2024). Conscious perception of fear in faces: Insights from high-density EEG and perceptual awareness scale with threshold stimuli. *Cortex*, 174, 93–109.
   https://doi.org/10.1016/j.cortex.2024.02.010
- Quettier, T., Maffei, A., Gambarota F., Ferrari, P. F., & Sessa, P. (2023). Testing EEG functional connectivity between sensorimotor and face processing visual regions in individuals with congenital facial palsy. Frontiers in Systems Neuroscience, 17, 1123221. https://doi.org/10.3389/fnsys.2023.1123221
- Gambarota F., Tsuchiya, N., Pastore, M., Di Polito, N., & Sessa, P. (2022). Unconscious visual working memory: A critical review and bayesian meta-analysis. Neuroscience and Biobehavioral Reviews, 136, 104618. https://doi.org/10.1016/j.neubiorev.2022.104618

# **SOFTWARE**

I mainly use R and the majority of research works are bounded with an R package, Shiny application or R code. The code and unpublished packages can be found on Github:

- filippogambarota: main personal repository
- shared-research: collection of papers with code and or packages
- stat-teaching: collection of teaching materials
- psicostat: repository of the Psicostat research group

# > R PACKAGES ON CRAN

• trackdown: I have co-authored an R package to collaborate on R Markdown and QUARTO documents. [CRAN]

# **RESEARCH SKILLS**

Rated as •••• (basic knowledge) to •••• (advanced knowledge).

# > OS

- Linux ••••
- Windows ••••

• MacOS ••••

# > PROGRAMMING LANGUAGES

- R ••••
- MATLAB ••••

- Python ••••
- Javascript ••••

# > WRITING

- LaTeX ••••
- HTML ••••
- CSS ••••

- Pandoc ••••
- (R)Markdown ••••
- Quarto ••••

# > EXPERIMENTS

- Psychopy •••••
- Eprime ••••

- Presentation ••••
- Psychtoolbox ••••

# > EEG/ERP

- EEGlab ••••
- ERPlab ••••

- Brainstorm
- Brainvision Analyzer

[ITA] Autorizzo il trattamento dei dati personali presenti nel CV ai sensi del D.Lgs. 2018/101 e del GDPR (Regolamento UE 2016/679).

Il sottoscritto Filippo Gambarota, consapevole delle responsabilità anche penali nel caso di falsità in atti e dichiarazioni mendaci ai sensi dell'art.76 del DPR 445/2000, dichiara che i dati, le informazioni e le notizie riportate nel presente Curriculum Vitae corrispondono al vero.

[ENG] I authorize the processing of personal data included in my CV in accordance with Legislative Decree 2018/101 and the GDPR (Regulation EU 2016/679).

I hereby declare that the information and details provided in this Curriculum Vitae are true and accurate to the best of my knowledge, acknowledging the legal and criminal consequences of providing false statements as per Article 76 of Presidential Decree 445/2000.

Padova, Dicembre 04th 2024

Filippo Gambarota

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