

# Filippo Gambarota, PhD

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*Last Update: November 26, 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

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### 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

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### 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

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### 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

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### Visiting Scholar (1 month, November-ongoing)

2024

*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)

2021

*University of Tel-Aviv, Israel*

Research project about the relationship between Working Memory and Consciousness

**Supervisor:** Professor Roy Luria

## EDUCATION

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### 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

### Licensed Psychologist (Esame di Stato)

2020

*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

### M.S. in Clinical Developmental Psychology - 110 cum laude

2018

*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

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### 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

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### **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)** 2023

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

## TEACHING

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[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** courses, Department of Developmental Psychology and Socialization, University of Padova



- 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. Massimiliano 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

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- 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

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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 5.75**. In terms of quartiles, I published **10 papers in Q1 journals (71.43%)**, **3 papers in Q2 journals (21.43%)**, **1 paper in Q3 journals (7.14%)**.

### Google Scholar

Last Update: 2024-11-26

contains preprints, conference proceedings and redundant articles

- H-index: **7**
- Citations: **126**
- Number of articles: **28**

### Scopus

Last Update: 2024-11-25

- H-index: **5**
- Citations: **55**
- Number of articles: **14**

### Web of Science

Last Update: 2024-11-25

- H-index: **5**
- Citations: **54**
- Number of articles: **14**

### > PUBLISHED (14)

° means that I am the corresponding author

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: 3.7, 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: 6.6, Quartile: Q1]
3. ° **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: 2.6, Quartile: Q2]

4. <sup>c</sup> **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: 13.6, Quartile: Q1]
5. 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: 3.6, Quartile: Q1]
6. 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: 8.2, 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: 2.6, Quartile: Q2]
8. 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: 4.2, Quartile: Q1]
9. 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: 12, Quartile: Q1]
10. 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, Quartile: Q3]
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: 8.2, 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: 3.8, Quartile: Q1]
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: 4.6, Quartile: Q2]



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: 3.8, Quartile: Q1]

> **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

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### > INVITED TALKS (3)

**Gambarota [P], F.** 2025

**Open Science Starter Pack [planned]**

*International Winter School 4M - Padova, Italy*

**Gambarota [P], F., Calignano, G.** 2025

**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

**Gambarota [P], F., Vesely, A., Finos, L., Altoè, G.** 2024

**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 non-normal data**



*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., Moscardino, U. 2024

**Communicative development on the move between Minority and Majority worlds**

*Italian Psychological Association (AIP), Developmental Psychology - Cagliari, Italy*

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 [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.** 2024  
**Cosa accade al di fuori della consapevolezza visiva? [Italian]**  
  
*Brain Awareness Week - Padova, Italy*
- Gambarota [P], F., Luria, R., Sessa, P.** 2022  
**Conscious and unconscious information processing in visual working memory**  
  
*Italian Psychological Association (AIP) - Padova, Italy*
- del Popolo Cristaldi, F., **Gambarota, F.**, Oosterwijk, S. 2022  
**The role of past experience in subjective ratings to affective predictions: cross-modality effects**  
*Cognitive Science Arena (CSA) - Bressanone, Italy*
- del Popolo Cristaldi, F., **Gambarota, F.**, Oosterwijk, S. 2022  
**The role of past visual experience in subjective reactions to new affective pictures and sounds**  
*Annual Conference of the Society for Affective Science (SAS) - Virtual*
- Gambarota [P], F., Tsuchiya, N., Pastore, M. Di Polito, N., Sessa, P.** 2021  
**Meta-analysis in Consciousness Research**  
*Conscious Brain Concepts Workshop - University of Oslo - Virtual*
- del Popolo Cristaldi, F., **Gambarota, F.**, Oosterwijk, S. 2021  
**The role of previous probabilistic learning on the subjective affective experience**  
*Italian Psychological Association (AIP) - Lecce, Italy*
- Gambarota [P], F., Zandonella Callegher, C., Linkersdörfer, J., Ling, M., Kothe, E.** 2021  
**trackdown - Collaborative writing through literate programming in R**  
  
*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., **Gambarota, F.**, Altoè, G., Rugani, R. 2024  
**Effects of Domestication and Selection for Productivity on Numerical Cognition in Chicks**  
*European Conference on Behavioural Biology (ECBB) - Zurich, Switzerland*
- Gambarota [P], 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*
- Rasti, S., **Gambarota, F.**, Altoè, G. 2023  
**Multiverse Meta-Analysis: Proposing an Exploratory Framework**  
*Society for the Improvement of Psychological Science - Padova, Italy*
- del Popolo Cristaldi, F., **Gambarota, F.**, Oosterwijk, S. 2022  
**Cross-modality effects in affective prediction construction: the role of past visual experience in subjective reactions to new affective pictures and sounds**

Pezzetta, R., **Gambarota**, F., Tarantino, V., Devita, M., Cattaneo, Z., Arcara, G., Mapelli, D., Masina, F. 2022  
**Probing cerebellar involvement in cognition through neuromodulation: A meta-analysis on the effectiveness of non-invasive cerebellar stimulation**  
*Transcranial 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. 2021  
**trackdown - A simple framework for collaboration in a literate programming workflow**  
   
*useR - Virtual*


**Gambarota** [P], F., Pastore, Luria, Ferrari, Sessa, P. 2020  
**Visual Working Memory Precision for Emotional Faces in Moebius Patients**  
*Cognitive Science Arena - Bressanone, Italy*

Quettier, T., **Gambarota**, F., Sessa, P. 2019  
**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

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Ad-hoc reviewer for:

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

**PROFESSIONAL MEMBERSHIPS**

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<b>Italian Reproducibility Network (ITRN)</b>	<i>from: 2024 - ongoing</i>
<b>The Society for the Improvement of Psychological Science (SIPS)</b>	<i>from: 2023 - 2024</i>
<b>Associazione Italiana di Psicologia, Sezione Sperimentale (AIP)</b>	<i>from: 2022 - ongoing</i>
<b>Associazione Italiana di Psicologia, Sezione Sviluppo (AIP)</b>	<i>from: 2024 - ongoing</i>

## ORGANIZATION

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### **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)

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*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 "Psicostat".**

2023 - ongoing

*Online*

Il sito <https://psicostat.dpss.psy.unipd.it/> 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 il 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

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### Psicostat - [psicostat.dpss.psy.unipd.it](https://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](https://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

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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

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### 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

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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

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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.

*Padua, 26<sup>th</sup> Novembre 2024*

Filippo Gambarota

A handwritten signature in black ink, reading "Filippo Gambarota". The script is cursive and elegant, with the first letters of the first and last names being capitalized and prominent.