

# Filippo Gambarota



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*Last Update: July 2, 2024*

I am a **postdoctoral researcher** at the University of Padova, department of Developmental Psychology and Socialization (DPSS) and **licensed psychologist**. I am interested in meta-analysis, Monte Carlo simulations for power and design analysis and multiverse analysis.

## 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 (M-PSI/03)

**Supervisor:** Prof. Gianmarco Altoè

## ACADEMIC ROLES

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**Expert (Cultore della Materia) of Psychometrics (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 (M-PSI/03) Supervisor: Prof. Gianmarco Altoè

## 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

**Visiting PhD student**

*2021*

*University of Tel-Aviv, Israel*

Research project about the relationship between Working Memory and Consciousness

**Supervisor:** Professor Roy Luria

**Licensed Psychologist (Esame di Stato)**

*2020*

*University of Padova, Italy*

<b>Internship</b>	2018 - 2019
<i>Department of Developmental Psychology and Socialization - University of Padova</i> Research project about visual consciousness and sensorimotor simulation Research project about social cognition during pregnancy Supervision of internship students in EEG laboratory	
<b>M.S. in Clinical Developmental Psychology - 110 cum laude</b>	2018
<i>University of Padova, Italy</i> Thesis: Visual Working Memory representations of infant faces during pregnancy as an adaptive mechanism. An EEG study. <b>Supervisor:</b> Professor Paola Sessa	
<b>Internship</b>	2018
<i>Department of Developmental Psychology and Socialization - University of Padova</i> Research project about social cognition during pregnancy with EEG data collection	
<b>B.S. in Psychology - 110 cum laude</b>	2016
<i>University of Padova, Italy</i> Thesis: Psychosocial well-being of adolescents with oncoemathological disease. <b>Supervisor:</b> Professor Ughetta Moscardino	
<b>Internship</b>	2016
<i>Hospital of Padova - Pediatrics Oncology</i> 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	

## AWARDS

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<b>Reproducibility Award - Italian Reproducibility Network (ITRN)</b>	2024
I won the <b>Reproducibility Award</b> 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. <i>Adv. Methods Pract. Psychol. Sci.</i> , 7(1). <a href="https://doi.org/10.1177/25152459231209330">https://doi.org/10.1177/25152459231209330</a>	
<b>Mission Award to Psicostat by the Society for the Improvement of Psychological Science (SIPS)</b>	2023
As an active member of the Psicostat research group ( <a href="https://improvingpsych.org/mission/awards/">https://improvingpsych.org/mission/awards/</a> )	

## TRAINING

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<b>Meta-Analysis with Metafor (3 days)</b>	2021
<i>Maastricht University</i> Intensive course about meta-analysis with the <b>metafor</b> package held by Professor Wolfgang Viechtbauer	
<b>Bayesian Regression Modeling with BRMS (5 days)</b>	2020
<i>Potsdam University</i> Summer School in Bayesian Statistics for Cognitive Psychology	
<b>Bayesian Statistical Analyses for the Human, Social and Cognitive Sciences (5 days)</b>	2019
<i>University of Verona</i>	

## TEACHING

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

### > PHD

<b>Replicability crisis in science? [planned] (5 hrs.)</b>	2024
<i>University of Padova</i> <b>Specialist Course</b> 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)

#### Statistical Methods and Data Analysis in Developmental Psychology [M-PSI/03] (21 hrs., 3 CFU)

2023

*University of Padova*

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

[[Materials](#)]

### > 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 [[Materials](#)]

- March 2024 (20 hrs.)
- March 2023 (20 hrs.)
- November 2022 (20 hrs.)
- October 2021 (20 hrs.)

### > INTEGRATIVE TEACHING (DIDATTICA INTEGRATIVA)

#### Data Analysis in Developmental Psychology [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

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

#### Psychological Testing [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 [[Materials](#)]

#### 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 [[Materials](#)]

#### 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 [[Materials](#)]

## 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 **12 papers** on journals with an **average impact factor of 6.275**. In terms of quartiles, I published **10 papers in Q1 journals, 1 paper in Q2 journals, 1 paper in Q3 journals**.

### Google Scholar

Last Update: 2024-07-02

- H-index: **5**
- Citations: **89**

### Scopus

Last Update: 2024-07-02

- H-index: **4**
- Citations: **40**

### > PUBLISHED (12)

Del Popolo Cristaldi, F., G. Buodo, F. **Gambarota**, S. Oosterwijk, and G. Mento (2024). "How previous experience shapes future affective subjective ratings: A follow-up study investigating implicit learning and cue ambiguity". En. In: *PLoS One* 19.2, p. e0297954. [IF: 3.7, Quartile: Q1]

Di Rosa, E., F. Masina, A. Pastorino, E. Galletti, F. **Gambarota**, G. Altoè, N. Edelstyn, and D. Mapelli (2024). "Mood moderates the effects of prefrontal tDCS on executive functions: A meta-analysis testing the affective state-dependency hypothesis". En. In: *J. Affect. Disord.* 351, pp. 920-930. ISSN: 0165-0327, 1573-2517. DOI: 10.1016/j.jad.2024.02.009. [IF: 6.6, Quartile: Q1]

**Gambarota**, F. and G. Altoè (2024). "Understanding meta-analysis through data simulation with applications to power analysis". En. In: *Adv. Methods Pract. Psychol. Sci.* 7.1. ISSN: 2515-2459, 2515-2467. DOI: 10.1177/25152459231209330. [IF: 13.6, Quartile: Q1]

Maffei, A., F. **Gambarota**, M. Liotti, R. Dell'Acqua, N. Tsuchiya, and P. Sessa (2024). "Conscious perception of fear in faces: Insights from high-density EEG and Perceptual Awareness Scale with threshold stimuli". In: *Cortex*. ISSN: 0010-9452, 1973-8102. DOI: 10.1016/j.cortex.2024.02.010. [IF: 3.6, Quartile: Q1]

Del Popolo Cristaldi, F., F. **Gambarota**, and S. Oosterwijk (2023). "Does your past define you? The role of previous visual experience in subjective reactions to new affective pictures and sounds". En. In: *Emotion* 23.5, pp. 1317-1333. ISSN: 1528-3542, 1931-1516. DOI: 10.1037/emo0001168. [IF: 4.2, Quartile: Q1]

Montuori, C., F. **Gambarota**, G. Altoé, and B. Arfé (2023). "The cognitive effects of computational thinking: A systematic review and meta-analytic study". En. In: *Comput. Educ.* 210.104961, p. 104961. ISSN: 0360-1315, 1873-782X. DOI: 10.1016/j.compedu.2023.104961. [IF: 12, Quartile: Q1]

Pezzetta, R., F. **Gambarota**, V. Tarantino, M. Devita, Z. Cattaneo, G. Arcara, D. Mapelli, and F. Masina (2023). "A meta-analysis of non-invasive brain stimulation (NIBS) effects on cerebellar-associated cognitive processes".

En. In: *Neurosci. Biobehav. Rev.* 157:105509, p. 105509. ISSN: 0149-7634, 1873-7528. DOI: 10.1016/j.neubiorev.2023.105509. [IF: 8.2, Quartile: Q1]

Quettier, T., A. Maffei, F. **Gambarota**, P. F. Ferrari, and P. Sessa (2023). "Testing EEG functional connectivity between sensorimotor and face processing visual regions in individuals with congenital facial palsy". En. In: *Front. Syst. Neurosci.* 17, p. 1123221. ISSN: 1662-5137. DOI: 10.3389/fnsys.2023.1123221. [IF: 3, Quartile: Q3]

**Gambarota**, F., N. Tsuchiya, M. Pastore, N. Di Polito, and P. Sessa (2022). "Unconscious Visual Working Memory: A critical review and Bayesian meta-analysis". En. In: *Neurosci. Biobehav. Rev.* 136:104618, p. 104618. ISSN: 0149-7634, 1873-7528. DOI: 10.1016/j.neubiorev.2022.104618. [IF: 8.2, Quartile: Q1]

Verroca, A., C. M. de Rienzo, F. **Gambarota**, and P. Sessa (2022). "Mapping the perception-space of facial expressions in the era of face masks". En. In: *Front. Psychol.* 13, p. 956832. ISSN: 1664-1078. DOI: 10.3389/fpsyg.2022.956832. [IF: 3.8, Quartile: Q1]

Quettier, T., F. **Gambarota**, N. Tsuchiya, and P. Sessa (2021). "Blocking facial mimicry during binocular rivalry modulates visual awareness of faces with a neutral expression". En. In: *Sci. Rep.* 11.1, p. 9972. ISSN: 2045-2322. DOI: 10.1038/s41598-021-89355-5. [IF: 4.6, Quartile: Q2]

**Gambarota**, F. and P. Sessa (2019). "Visual working memory for faces and facial expressions as a useful ``tool'' for understanding social and affective cognition". En. In: *Front. Psychol.* 10:OCT, p. 2392. ISSN: 1664-1078. DOI: 10.3389/fpsyg.2019.02392. [IF: 3.8, Quartile: Q1]

#### > ACCEPTED (1)

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]

#### > UNDER REVIEW (1)

**Gambarota** & Altoè - Ordinal regression models made easy. A tutorial on parameter interpretation, data simulation, and power analysis [[Preprint](#)]

## CONFERENCES

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#### > INVITED TALKS (1)

**Gambarota** [P] and Altoè 2024  
**Understanding meta-analysis through data simulation with applications to power analysis -** [[Material](#)]  
*Cognitive Science Arena (CSA) - Bressanone, Italy*

#### > TALKS (12)

[P] means that I was the presenting author

[accepted] means that the talk has been accepted but not delivered yet

**Gambarota** [P], Vesely, Finos, Altoè 2024  
**Inference on multiverse meta-analysis. [accepted]**  
*META-REP - Munich, Germany*

**Gambarota** [P], Toffalini 2024  
**Are most interactions false? The importance of the appropriate distribution and link function with non-normal data. [accepted]**  
*Italian Psychological Association (AIP), Developmental Psychology - Cagliari, Italy*

Perugini, <b>Gambarota</b> , Toffalini, Sita, Lakens, Pastore, Finos, Psicostat, Altoè <b>Critical effect size values and why to report them. [accepted]</b> <i>Italian Psychological Association (AIP), Developmental Psychology - Noto, Italy</i>	2024
Girardi, Vesely, <b>Gambarota</b> , Altoè, Pastore, Finos <b>Exploring the Dark Side of the Multiverse: Pitfalls and Possibilities in Applications [accepted]</b> <i>Association for Applied Statistics (ASA) - Rome, Italy</i>	2024
<b>Gambarota [P]</b> <b>Inferenza nella meta-analisi multiverse. Un approccio multivariato basato sulle permutazioni</b> <i>La Psicometria tra Oggi e Domani: Sfide E Nuovi Orizzonti - Firenze, Italy</i>	2024
<b>Gambarota [P]</b> <b>Cosa accade al di fuori della consapevolezza visiva? [Italian] - [Slides]</b> <i>Brain Awareness Week - Padova, Italy</i>	2024
<b>Gambarota [P]</b> , Luria and Sessa <b>Conscious and unconscious information processing in visual working memory - [Slides]</b> <i>Italian Psychological Association (AIP) - Padova, Italy</i>	2022
del Popolo Cristaldi, <b>Gambarota</b> and Oosterwijk <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, <b>Gambarota</b> and Oosterwijk <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
<b>Gambarota [P]</b> , Tsuchiya, Pastore, Di Polito and Sessa <b>Meta-analysis in Consciousness Research</b> <i>Conscious Brain Concepts Workshop - University of Oslo - Virtual</i>	2021
del Popolo Cristaldi, <b>Gambarota</b> and Oosterwijk <b>The role of previous probabilistic learning on the subjective affective experience</b> <i>Italian Psychological Association (AIP) - Lecce, Italy</i>	2021
<b>Gambarota [P]</b> , Zandonella Callegher, Linkersdörfer, Ling and Kothe <b>trackdown - Collaborative writing through literate programming in R - [Slides]</b> <i>Towards Advanced Scientific Knowledge (TASK4) - Virtual</i>	2021
<b>&gt; POSTERS (7)</b>	
<i>[P]</i> means that I was the presenting authors	
<b>Gambarota [P]</b> , Vesely, Finos, Altoè <b>Joinmeta - An Inferential approach to multiverse meta-analysis - [Poster]</b> <i>Society for the Improvement of Psychological Science (SIPS) - Padova, Italy</i>	2023
del Popolo Cristaldi, <b>Gambarota</b> and Oosterwijk <b>Cross-modality effects in affective prediction construction: the role of past visual experience in subjective reactions to new affective pictures and sounds</b> <i>Annual Conference of the European Society for Cognitive and Affective Neuroscience (ESCAN) - Virtual</i>	2022



- Pezzetta, **Gambarota**, Tarantino, Devita, Cattaneo, Arcara, Mapelli and Masina 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], Zandonella Callegher, Linkersdörfer, Ling and Kothe 2021  
**trackdown - An R package for collaborative writing and editing - [Video], [Slides]**  
*Society for the Improvement of Psychological Science (SIPS) - Virtual*
- Gambarota** [P], Zandonella Callegher, Linkersdörfer, Ling and Kothe 2021  
**trackdown - A simple framework for collaboration in a literate programming workflow - [Video], [Slides]**  
*useR - Virtual*
- Gambarota** [P], Pastore, Luria, Ferrari and Sessa 2020  
**Visual Working Memory Precision for Emotional Faces in Moebius Patients**  
*Cognitive Science Arena - Bressanone, Italy*
- Quettier, **Gambarota** and Sessa 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], Crepaldi, Liuzza, Calignano, Finos, Scandola 2024  
**The Multiverse of Multi-labs. Methodological and Statistical Aspects of Multi-Lab and Multiverse Studies. [accepted]**  
*Italian Psychological Association (AIP), Experimental Psychology - Noto, Italy*

## PEER REVIEWS

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See my [Publons Profile](#)

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 - ongoing</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)

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 TOLON** 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. 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

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

2019 - ongoing

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.

## 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 ●●●●●●

*Filippo Gambarota*