# Filippo Gambarota



Last Update: June 10, 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**

# 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**

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

# **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

# **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

**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 inpatients adolescents Discussing about clinical cases in regular supervisions

#### **AWARDS**

## Reproducibility Award - Italian Reproducibility Network (ITRN)

2024

2023

The paper "Understanding meta-analysis through data simulation with applications to power analysis" won the 2023 Reproducibility Award from the Italian Reproducibility Network (ITRN)

DOI 10.5281/zenodo.10277050

# 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/)

#### **TRAINING**

# **Meta-Analysis with Metafor**

2021

Maastricht University

Intensive course about meta-analysis with the metafor package held by Professor Wolfgang Viechtbauer

# **Bayesian Regression Modeling with BRMS**

2020

Potsdam University

Summer School in Bayesian Statistics for Cognitive Psychology

## Bayesian Statistical Analyses for the Human, Social and Cognitive Sciences

2019

University of Verona

## **TEACHING**

#### > PHD

These course are part of the PhD program in Psychological Sciences at the University of Padova.

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 (21 hrs., 3 CFU) 2023 University of Padova

Lecturer 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**

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

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

# **Psychological Testing (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 (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 (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 (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**

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

# Google Scholar

H-index: 5Citations: 89

# Scopus

H-index: 4Citations: 36

#### > 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**

# > INVITED TALKS (1)

Gambarota [P] & Altoè

2024

Understanding meta-analysis through data simulation with applications to power analysis - [Material]

Cognitive Science Arena (CSA) - Bressanone, Italy

## > TALKS (8)

[P] means that I was the presenting authors

**Gambarota** [P] 2024

Cosa accade al di fuori della consapevolezza visiva? [Italian] - [Slides]

Brain Awareness Week - Padova, Italy

**Gambarota** [P] 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], Luria and Sessa  Conscious and unconscious information processing in visual working memory - [Slides]  Italian Psychological Association (AIP) - Padova, Italy	2022
del Popolo Cristaldi, <b>Gambarota</b> and Oosterwijk  The role of past visual experience in subjective reactions to new affective pictures and sounds	2022
Annual Conference of the Society for Affective Science (SAS) - Virtual	
del Popolo Cristaldi, <b>Gambarota</b> and Oosterwijk  The role of past experience in subjective ratings to affective predictions: cross-modality effects  Cognitive Science Arena (CSA) - Bressanone, Italy	2022 /
Gambarota [P], Tsuchiya, Pastore, Di Polito and Sessa  Meta-analysis in Consciousness Research  Conscious Brain Concepts Workshop - University of Oslo - Virtual	2021
Gambarota [P], Zandonella Callegher, Linkersdörfer, Ling and Kothe trackdown - Collaborative writing through literate programming in R - [Slides] Towards Advanced Scientific Knowledge (TASK4) - Virtual	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
> POSTERS (7)	
[P] means that I was the presenting authors	
Gambarota [P], Vesely, Finos, Altoè  Joinmeta - An Inferential approach to multiverse meta-analysis - [Poster]  Society for the Improvement of Psychological Science (SIPS) - Padova, Italy	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> Annual Conference of the European Society for Cognitive and Affective Neuroscience (ESCAN) - Virial	2022 tual
Pezzetta, <b>Gambarota</b> , Tarantino, Devita, Cattaneo, Arcara, Mapelli and Masina <b>Probing cerebellar involvement in cognition through neuromodulation: A meta-analysis the effectiveness of non-invasive cerebellar stimulation</b> Transcranical Brain Stimulation in Cognitive Neuroscience Workshop - Rovereto, Italy	2022 <b>on</b>
Gambarota [P], Zandonella Callegher, Linkersdörfer, Ling and Kothe trackdown - An R package for collaborative writing and editing - [Video], [Slides] Society for the Improvement of Psychological Science (SIPS) - Virtual	2021
Gambarota [P], Zandonella Callegher, Linkersdörfer, Ling and Kothe	2021

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

#### **PEER REVIEWS**

See my Publons Profile

Ad-hoc reviewer for:

- International Journal of Psychology
- PLoS ONE
- · Consciousness and Cognition

#### PROFESSIONAL MEMBERSHIPS

Italian Reproducibility Network (ITRN) from: 2023 - ongoing

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

**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)**

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

2023 - ongoing

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. 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

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

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