# Filippo Gambarota



■ filippo.gambarota@unipd.it | ↑ filippogambarota | ♠ 0000-0002-6666-1747 | ♥ fgambarota

Last Update: August 27, 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

# 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

# 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 2016 B.S. in Psychology - 110 cum laude University of Padova, Italy Thesis: Psychosocial well-being of adolescents with oncoemathological disease. Supervisor: Professor Ughetta Moscardino 2016 Internship 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

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/)

# **TRAINING**

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

# **TEACHING**

University of Verona

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

## > PHD

# 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 in Developmental Psychology [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 [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. 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 [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]

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**

- 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 paper in Q2 journals**, **1 paper in Q3 journals**.

# Google Scholar

Last Update: 2024-08-27

H-index: 6Citations: 102

# Scopus

Last Update: 2024-08-27

H-index: 5Citations: 46

# > 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 (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]

**Gambarota** & Altoè - Ordinal regression models made easy. A tutorial on parameter interpretation, data simulation, and power analysis - *International Journal of Psychology* [In press]

# **CONFERENCES**

# > 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

| [accepted] means that the talk has been accepted but not delivered yet  |                    |
|---|--------------------|
| Gambarota [P], Vesely, Finos, Altoè Inference on multiverse meta-analysis. [accepted] META-REP - Munich, Germany  | 2024               |
| Gambarota [P], Toffalini 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         | 2024               |
| Perugini, <b>Gambarota</b> , Toffalini, Sità, 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</b> [accepted]   | 2024               |
| Gambarota [P] Inferenza nella meta-analisi multiverse. Un approccio multivariato basato sulle permutazioni La Psicometria tra Oggi e Domani: Sfide E Nuovi Orizzonti - Firenze, Italy   | 2024               |
| Gambarota [P] Cosa accade al di fuori della consapevolezza visiva? [Italian] - [Slides] Brain Awareness Week - Padova, Italy  | 2024               |
| Gambarota [P], Luria and Sessa Conscious and unconscious information processing in visual working memory - [Slides] Italian Psychological Association (AIP) - Padova, Italy   | 2022<br>           |
| del Popolo Cristaldi, <b>Gambarota</b> and Oosterwijk  The role of past experience in subjective ratings to affective predictions: cross-modalite effects   | 2022<br>t <b>y</b> |
| del Popolo Cristaldi, <b>Gambarota</b> and Oosterwijk  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                      | 2022<br>I          |
| Gambarota [P], Tsuchiya, Pastore, Di Polito and Sessa<br>Meta-analysis in Consciousness Research<br>Conscious Brain Concepts Workshop - University of Oslo - 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               |
| Gambarota [P], Zandonella Callegher, Linkersdörfer, Ling and Kothe trackdown - Collaborative writing through literate programming in R - [Slides]   | 2021               |

[P] means that I was the presenting author

| > | P | O | S | T | E | R | S | ( | 8 | ) |
|---|---|---|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   |   |   |   |

[P] means that I was the presenting authors [accepted] means that poster has been accepted but has not taken place yet

Brosche, **Gambarota**, Altoè, Rugani

2024

# Effects of Domestication and Selection for Productivity on Numerical Cognition in Chicks [planned]

European Conference on Behavioural Biology (ECBB) - Zurich, Switzerland

Gambarota [P], Vesely, Finos, Altoè

2023

# Joinmeta - An Inferential approach to multiverse meta-analysis - [Poster]

Society for the Improvement of Psychological Science (SIPS) - Padova, Italy

del Popolo Cristaldi, Gambarota and Oosterwijk

2022

# Cross-modality effects in affective prediction construction: the role of past visual experience in subjective reactions to new affective pictures and sounds

Annual Conference of the European Society for Cognitive and Affective Neuroscience (ESCAN) - Virtual

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

Transcranical 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**

#### See my Publons Profile

Ad-hoc reviewer for:

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

#### **PROFESSIONAL MEMBERSHIPS**

Italian Reproducibility Network (ITRN) from: 2024 - 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.

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 ●●●●

#### > PROGRAMMING LANGUAGES

- R ••••
- MATLAB ●●●○○
- > WRITING
  - LaTeX ●●●●●
  - HTML ••••
  - CSS ••••
- > EXPERIMENTS
  - Psychopy
  - Eprime ••••
- > EEG/ERP
  - EEGlab ••••
  - ERPlab ••••

- MacOS ●●●○○
- Python ••••
- Javascript •••••
- Pandoc ••••
- (R)Markdown
- Quarto
- Presentation ••••
- Psychtoolbox ••••
- Brainstorm ••••
- Brainvision Analyzer •••••

Filippo Gambarota