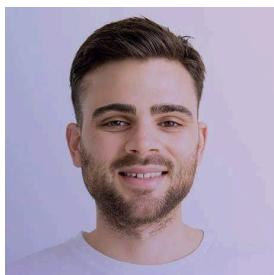


# Filippo Gambarota



✉ [filippo.gambarota@unipd.it](mailto:filippo.gambarota@unipd.it) | 🌐 [filippogambarota](https://www.filippogambarota.it) | 📞 0000-0002-6666-1747 | 🐦 [fgambarota](https://twitter.com/fgambarota)

*Last Update: September 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

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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

**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 in-patients adolescents Discussing about clinical cases in regular supervisions

## 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/>)

## 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*

## TEACHING

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[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)**

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 **13 papers** on journals with an **average impact factor of 5.9923077**. In terms of quartiles, I published **10 papers in Q1 journals, 2 papers in Q2 journals, 1 paper in Q3 journals**.

## Google Scholar

Last Update: 2024-09-27

- H-index: **6**
- Citations: **115**

## Scopus

Last Update: 2024-09-27

- H-index: **5**
- Citations: **50**

## > PUBLISHED (13)

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: *Journal of affective disorders* 351, pp. 920-930. ISSN: 0165-0327,1573-2517. DOI: 10.1016/j.jad.2024.02.009.

<http://dx.doi.org/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: *Advances in methods and practices in psychological science* 7 (1). ISSN: 2515-2459,2515-2467. DOI: 10.1177/25152459231209330.

<http://dx.doi.org/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.

<http://dx.doi.org/10.1016/j.cortex.2024.02.010>. [IF: 3.6, Quartile: Q1]

Toffalini, E., F. **Gambarota**, A. Perugini, P. Girardi, V. Tobia, G. Altoè, D. Giofrè, Psicostat Core Team, and T. Feraco (2024). "Clusters that are not there: An R tutorial and a Shiny app to quantify a priori inferential risks when using clustering methods". En. In: *International journal of psychology: Journal international de psychologie*. ISSN: 0020-7594,1464-066X. DOI: 10.1002/ijop.13246.

<https://pubmed.ncbi.nlm.nih.gov/39300789/>. [IF: 2.6, Quartile: Q2]

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 (Washington, D.C.)* 23 (5), pp. 1317-1333. ISSN: 1528-3542,1931-1516. DOI:

10.1037/emo0001168. <http://dx.doi.org/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: *Computers & education* 210 (104961), p. 104961. ISSN: 0360-1315,1873-782X. DOI: 10.1016/j.compedu.2023.104961.

<http://dx.doi.org/10.1016/j.compedu.2023.104961> (visited on Dec. 03, 2023). [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: *Neuroscience and biobehavioral reviews* 157 (105509), p. 105509. ISSN: 0149-7634,1873-7528. DOI: 10.1016/j.neubiorev.2023.105509.

<http://dx.doi.org/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: *Frontiers in systems neuroscience* 17, p. 1123221. ISSN: 1662-5137. DOI: 10.3389/fnsys.2023.1123221. <http://dx.doi.org/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: *Neuroscience and biobehavioral reviews* 136 (104618), p. 104618. ISSN: 0149-7634,1873-7528. DOI: 10.1016/j.neubiorev.2022.104618.

<http://dx.doi.org/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: *Frontiers in psychology* 13, p. 956832. ISSN: 1664-1078. DOI: 10.3389/fpsyg.2022.956832.

<https://www.frontiersin.org/articles/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: *Scientific reports* 11 (1), p. 9972. ISSN: 2045-2322. DOI: 10.1038/s41598-021-89355-5. <http://dx.doi.org/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: *Frontiers in psychology* 10 (OCT),

## > 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

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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. - [Slides]**  
*Italian Psychological Association (AIP), Developmental Psychology - Cagliari, Italy*

Perugini, **Gambarota**, Toffalini, Sità, Lakens, Pastore, Finos, Psicostat, Altoè 2024  
**Critical effect size values and why to report them.**  
*Italian Psychological Association (AIP), Developmental Psychology - Noto, Italy*

Girardi, Vesely, **Gambarota**, Altoè, Pastore, Finos 2024  
**Exploring the Dark Side of the Multiverse: Pitfalls and Possibilities in Applications**  
*Association for Applied Statistics (ASA) - Rome, 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] 2024  
**Cosa accade al di fuori della consapevolezza visiva? [Italian] - [Slides]**  
*Brain Awareness Week - Padova, Italy*

**Gambarota** [P], Luria and Sessa 2022  
**Conscious and unconscious information processing in visual working memory - [Slides]**

- del Popolo Cristaldi, **Gambarota** and Oosterwijk 2022  
**The role of past experience in subjective ratings to affective predictions: cross-modality effects**  
*Cognitive Science Arena (CSA) - Bressanone, Italy*
- del Popolo Cristaldi, **Gambarota** and Oosterwijk 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], Tsuchiya, Pastore, Di Polito and Sessa 2021  
**Meta-analysis in Consciousness Research**  
*Conscious Brain Concepts Workshop - University of Oslo - Virtual*
- del Popolo Cristaldi, **Gambarota** and Oosterwijk 2021  
**The role of previous probabilistic learning on the subjective affective experience**  
*Italian Psychological Association (AIP) - Lecce, Italy*
- Gambarota** [P], Zandonella Callegher, Linkersdörfer, Ling and Kothe 2021  
**trackdown - Collaborative writing through literate programming in R - [Slides]**  
*Towards Advanced Scientific Knowledge (TASK4) - Virtual*
- > POSTERS (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**  
*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. - [[Material](#)]**

*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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**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

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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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**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. 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

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**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

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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 ●●○○○

*Filippo Gambarota*