

Maristella Lunardon

Postdoctoral researcher, Faculty of science, Diagnostics and cognitive neuropsychology group, University of Tuebingen (Germany)

Academic career

Teach@Tuebingen Fellow

UNIVERSITY OF TUEBINGEN (GERMANY)

- Supervisor: prof. H.C. Nuerk

April 2025 - March 2026

PhD in Cognitive Neuroscience

INTERNATIONAL SCHOOL FOR ADVANCED STUDIES - SISSA (TRIESTE, ITALY)

- Supervisor: prof. Raffaella Rumati. Co-supervisor: dr. Tania Cerni
- Thesis: "Non-cognitive factors influencing numeracy in higher education"

October 2020 - December 2024

Visiting student

UNIVERSITY OF TUEBINGEN (GERMANY)

- Supervisor: prof. H.C. Nuerk

January - March 2024

Scholarship holder in the research project "Atypical development of number sense"

UNIVERSITY OF PADOVA (ITALY)

- Supervisor: prof. Marco Zorzi

June 2020 - September 2020

Research assistant in the research project "Architecture of orthographic system and pathogen mechanisms in reading and writing disorders"

CENTRO MEDICO DI FONIATRIA (PADOVA, ITALY)

- Supervisor: prof. Giuseppe Cossu

March 2020 - June 2020

Internship on developmental dyscalculia and other neurodevelopmental disorders

UNIVERSITY OF PADOVA (ITALY)

- Supervisor: prof. Silvia Lanfranchi

September 2019 - February 2020

Master degree in Cognitive Neuroscience and Clinical Neuropsychology

UNIVERSITY OF PADOVA (ITALY)

- Thesis: "Training numerical skills in children with Down syndrome"

October 2014 - April 2017

Internship in the research project "Training numerical skills in children with Down syndrome"

UNIVERSITY OF PADOVA (ITALY)

- Supervisors: prof. Marco Zorzi, Dr. Francesco Sella

March 2016 - March 2017

Bachelor degree in Psychological developmental and educational sciences

UNIVERSITY OF PADOVA (ITALY)

- Thesis: "Training of numerical skills in primary school children"

October 2011 - July 2014

Internship in the research project "Training of numerical skills in primary school children"

UNIVERSITY OF PADOVA (ITALY)

- Supervisors: prof. Daniela Lucangeli, Dr. Francesco Sella

October 2013 - June 2014

LLP Erasmus student

JULIUS-MAXIMILIANS-UNIVERSITAET WUERZBURG (GERMANY)

September 2012- March 2013

Scientific high school diploma

LICEO GINNASIO G.B. BROCCHI, BASSANO DEL GRAPPA (ITALY)

2011

Activities

Policy and Practice Chair of the Trainee Board

MATHEMATICAL COGNITION AND LEARNING SOCIETY (MCLS)

since May 2025

Member

LEAD GRADUATE SCHOOL AND RESEARCH NETWORK, UNIVERSITY OF TUEBINGEN (GERMANY)

since May 2025

Ad-hoc reviewer

INTERNATIONAL JOURNALS

since 2021

- Acta Psychologica; Annals of the New York Academy of Sciences; British Journal of Educational Psychology; Educational Psychology review; European Journal of Investigation in Health, Psychology and Education; Frontiers in Psychology; Humanities and Social Sciences Communications; International Journal of Developmental Disabilities; Journal of Experimental Child Psychology; Journal of Intellectual Disability Research; Journal of Intelligence; Journal of Numerical cognition; Journal of Open Psychology Data; Peer Community In - Registered Reports; PsyCh Journal; Scandinavian Journal of Educational Research

Reviewer

CONFERENCES

since 2025

- Tagung experimentell arbeitender Psycholog*innen (TeaP) 2026; Network Gender and STEM Conference 2026

Member of the selection board for the hand over of the SISSA nursery management

INTERNATIONAL SCHOOL FOR ADVANCED STUDIES - SISSA (TRIESTE, ITALY)

July 2023

Supervision and co-supervision of interns

INTERNATIONAL SCHOOL FOR ADVANCED STUDIES - SISSA (TRIESTE, ITALY)

July 2023

- Bachelor's students: 2. Master's students: 1

Licensed psychologist

MEMBER OF THE BOARD OF PSYCHOLOGISTS OF VENETO (ITALY)

since 2022

Teaching

2026	Personality Psychology Seminar (S): Emotions and Attitudes in Learning University of Tuebingen (Germany)	6 ECTS
2025	Personality Psychology Research Project (PA): Recordings from skin and heart in cognition and personality Part 2 University of Tuebingen (Germany)	6 ECTS
2025	Personality Psychology Research Seminar (FS): Recordings from skin and heart in cognition and personality Part 1 University of Tuebingen (Germany)	6 ECTS

Scientific dissemination

Poster at the Science Day: *Mathe-Angst und Selbstkonzept: Wie reagiert man nach Fehlern beim Rechnen?* [Math anxiety and self-concept: how do we react to arithmetic mistakes?]

LEAD GRADUATE SCHOOL AND RESEARCH NETWORK

March 2026

Gender lunch seminar: *Mathematica e genere oltre gli stereotipi* [Mathematics and gender beyond stereotypes]

UNIVERSITÀ VITA-SALUTE SAN RAFFAELE (MILANO, ITALY)

April 2025

Speaker in the project *Racconti di donne e di scienza* [Stories of Women and Science]

SISSA MEDIALAB (TRIESTE, ITALY)

December 2024

“One hour with the researcher“ speaker in Manna primary school

INTERNATIONAL SCHOOL FOR ADVANCED STUDIES - SISSA (TRIESTE, ITALY)

2022

SISSA for School speaker (science communication program)

INTERNATIONAL SCHOOL FOR ADVANCED STUDIES - SISSA (TRIESTE, ITALY)

2022-2024

Awards, Fellowships, & Grants

2026-2028	Walter-Benjamin Programme University of Tuebingen (Germany)	€ 184900
2025-2026	Teach@Tuebingen fellowship University of Tuebingen (Germany)	€ 22236
2024	Erasmus+ Traineeship fellowship International school for Advanced Studies - SISSA (Trieste, Italy)	€ 2250
2020	Research scholarship University of Padova (Italy)	€ 4000
2012-2013	LLP-Erasmus scholarship University of Padova (Italy)	

Publications

PUBLICATIONS IN PEER-REVIEWED JOURNALS

- Cipora, K., Lunardon, M., Masson, N., Georges, C., Nuerk, H.-C., & Artemenko, C. (2024). The AMATUS Dataset: Arithmetic Performance, Mathematics Anxiety and Attitudes in Primary School Teachers and University Students. *Journal of Open Psychology Data*, 12: 10, pp. 1–17. <https://doi.org/10.5334/jopd.115>
- Dolfi, S., Decarli, G., Lunardon, M., De Filippo De Grazia, M., Gerola, S., Lanfranchi, S., Cossu, G., Sella, F., Testolin, A., & Zorzi, M. (2023). Weaker number sense accounts for impaired numerosity perception in dyscalculia: behavioral and computational evidence. *Developmental Science*, 27, e13538. <https://doi.org/10.1111/desc.13538>
- Lanfranchi, S., Onnivello, S., Lunardon, M., Sella, F., & Zorzi, M. (2021). Parent-based training of basic number skills in children with Down syndrome using an adaptive computer game. *Research in Developmental Disabilities*, 112, 103919. <https://doi.org/10.1016/j.ridd.2021.103919>
- Lanfranchi, S., Sella, F., Onnivello, S., Lunardon, M., & Zorzi, M. (2022). Number estimation in Down syndrome: Cognition or experience? *Research in Developmental Disabilities*, 131, 104363. <https://doi.org/10.1016/j.ridd.2022.104363>
- Lunardon, M., Artemenko, C., Rossi, S., Nuerk, H., & Cipora, K. (2025). More Than Just Anxiety: Math Attitudes as Key Driver of University Choice. *Annals of the New York Academy of Sciences*. <https://doi.org/10.1111/nyas.70060>

- Lunardon, M., Cerni, T., & Rumiati, R. I. (2022). Numeracy Gender Gap in STEM Higher Education: The Role of Neuroticism and Math Anxiety. *Frontiers in Psychology*, 13, 856405. <https://doi.org/10.3389/fpsyg.2022.856405>
- Lunardon, M., Cerni, T., & Rumiati, R. I. (2024). Field of study and gender modulation of the effect of personality and math anxiety on numeracy. *The Journal of Psychology: Interdisciplinary and Applied*. 1-29. <https://doi.org/10.1080/00223980.2024.2352706>
- Lunardon, M., Cerni, T., Zanon, M. & Rumiati, R. I. (2024). Physiological correlates of math ability in higher education. *Trends in Neuroscience and Education*, 100266. <https://doi.org/10.1016/j.tine.2025.100266>
- Lunardon, M., Decarli, G., Sella, F., Lanfranchi, S., Gerola, S., Cossu, G., & Zorzi, M. (2023). Low discriminative power of WISC cognitive profile in developmental dyscalculia. *Research in Developmental Disabilities*, 136. <https://doi.org/10.1016/j.ridd.2023.104478>
- Lunardon, M., Lucangeli, D., Zorzi, M., & Sella, F. (2023). Math computerized games in the classroom: a Number Line Training in Primary School Children. *Progress in Brain Research*, 276, 1-33. <https://doi.org/10.1016/bs.pbr.2022.11.001>
- Sella, F., Onnivello, S., Lunardon, M., Lanfranchi, S., & Zorzi, M. (2021). Training basic numerical skills in children with Down syndrome using the computerized game “The Number Race.” *Scientific Reports*, 11(1), 2087. <https://doi.org/10.1038/s41598-020-78801-5>

CONFERENCE PROCEEDINGS

- Lunardon, M., Cerni, T., & Rumiati, R.I. (2021). “Cognitive and Non-Cognitive Factors Influencing the Numeracy Gender Gap in Higher Education” in *Proceedings of the 2nd International Conference of the Journal Scuola Democratica “Reinventing Education”, VOL. 2, Learning with New Technologies, Equality and Inclusion*, pp. 1037-1047

BOOK CHAPTERS

- Rumiati, R.I. Lunardon, M. Bersier, N. (2025). *Cognizione e Genere: Comprendere i Fattori che Influenzano le Abilità Matematiche e Spaziali [Cognition and Gender: Understanding the Factors Influencing Mathematical and Spatial Skills]*, in Govoni, P. (Ed.), *Donne e Scienza [Women and Science]*. Carocci Editore.

PREPRINTS

- Lunardon, M., Cerni, T., Zanon, M. & Rumiati, R. I. (2025). The Longitudinal Relationship between Math Anxiety and Numeracy in Higher Education. Social Science Research Network. <https://doi.org/10.2139/ssrn.5282301>
- Cipora, K.*, Lunardon, M.*, von Lehsten, I., Daroczy, G., Willmes, K., Nuerk, H.-C., & Artemenko, C. (2026). The relation between math anxiety and math self-concept to math performance varies across study math load. PsyArXiv. <https://osf.io/preprints/psyEqualcontributors>
- Hadi Sichani, M.*, Lunardon, M.*, Cerni, T., & Rumiati, R. I. (2026). Academic field, not gender, shapes the impact of math gender stereotypes on arithmetic performance (SSRN Scholarly Paper No. 6350921). Social Science Research Network. <https://doi.org/10.2139/ssrn.6350921>. *Equal contributors

PREREGISTRATIONS

- Lunardon, M., Artemenko, C., Zanon, M., & Nuerk, H.C. (2025). Autonomic nervous system and arithmetic: paradigm and individual differences. https://aspredicted.org/see_ne.php
- Lunardon, M., Eckerskorn, F., Fioriti, C., Nuerk, H.C., & Artemenko, C. (2025). Mathematics and Autonomic Nervous System: A Systematic Review. PROSPERO CRD420251086672. Available from <https://www.crd.york.ac.uk/PROSPERO/view/CRD420251086672>
- Lunardon, M., James-Brabham, E., Lortie-Forgues, H., & Sella, F. (2023). Is the number line an effective tool to improve mathematical skills? A systematic review and meta-analysis. <https://doi.org/10.17605/OSF.IO/S5ZF4>

Conferences (selection)

- Lunardon, M. (2026). The Many Faces of Error Processing. Insights from Multiple Perspectives and Approaches [Symposium chair]. Tagung experimentell arbeitender Psycholog*innen (TeaP), 2026, Tuebingen, Germany.
- Lunardon, M., Artemenko, C., Rossi, S., Nuerk, H.C., Cipora, K. (2026). Running away from math? Analyzing STEM choice for the study program [Invited symposium presentation]. American Educational Research Association (AERA) Annual Meeting, Los Angeles, USA.

- Lunardon, M., Cerni, T., & Rumiati, R. (2023, January). Math anxiety, but not neuroticism, modulates cortisol effect on numeracy in non-STEM students regardless of gender [Poster session]. European Workshop in Cognitive Neuropsychology, Bressanone, Italy.
- Lunardon, M., Cerni, T., & Rumiati, R. (2023, June). Field of study and gender modulation of the effect of personality and math anxiety on numeracy [Selected oral presentation]. Mathematical Cognition and Learning Society Conference, Loughborough, England.
- Lunardon, M., Cerni, T., & Rumiati, R. (2023, Settembre). Math anxiety, personality and physiological reactivity effect on numeracy in higher education students: Do field of study and gender matter? [Invited symposium presentation]. 8th Scientific Meeting of the European Societies of Neuropsychology, Thessaloniki, Greece.
- Lunardon, M., Cerni, T., Zanon, M. & Rumiati, R. (2025, September). Physiological correlates of numeracy in higher education [Invited symposium presentation]. 20. Tagung der Fachgruppe Pädagogische Psychologie, Jena, Germany.

Competences

LANGUAGES

- Italian: native language
- English: C1 (certified by Cambridge C1 Advanced Exam, 2020)
- German: B2

SOFTWARE

- OS: Windows, GNU/Linux
- Programming languages: R (advanced), Matlab (intermediate), Python (beginner), Javascript (beginner)
- Statistical software: Jasp, SPSS, Jamovi

Training

- Biofeedback and Neurofeedback: Clinical Applications and Treatment protocols**
 2025 (*Biofeedback and Neurofeedback: Applicazioni Cliniche e Protocolli di Trattamento*)
 University of Padova, U.O. Biofeedback e Psicofisiologia
- Writing scientific papers | from structure to language**
 2023 Online SISSA SCICOM Masterclasses
- Computing statistical power in R using simulations**
 2023 Mathematical Cognition and Learning Society conference workshop, held by dr. Hugues Lortie-Forgues (Loughborough, United Kingdom)
- Python Programming Essentials**
 2021 On-line non credited course authorized by Rice University and offered through Coursera.

Other

VOLUNTARY WORK

- 2024 **Trainer on Special Education Need challenges for scout masters**
 Bassano del Grappa (Italy)
- 2014-2017 **Scout master**
 Bassano del Grappa (Italy)
- 2015-2017 **Secretary for the community representative board**
 San Zeno di Cassola (Italy)
- 2013-2016 **Member of a Board for the Environment**
 Rosà (Italy)
- 2008-2012 **Educator for children**
 San Zeno di Cassola parish (Italy)

OTHER WORK AND INTERNSHIP EXPERIENCES

- 2022-2024 **Daily press review and financial resources management - Student collaborations**
International School for Advanced Studies - SISSA (Trieste, Italy)
- 2019 **Internship in a psychoeducational service for individuals with neurodevelopmental disorders**
Oikia per la Famiglia social cooperative (Padova, Italy)
- 2019 **Technology and creativity educator for children**
Codemotion (Rome, Italy)
- 2019 **Nursery educator**
Cassola solidale social cooperative (Cassola, Italy)
- 2018-2019 **Hostess in promotional events**
Ferrari E20 (Vicenza, Italy)
To Get SRL (Vicenza, Italy)
- 2017-2018 **Civil service volunteer**
Africa Call Organization (Lusaka, Zambia)
- 2016-2017 **Primary school teacher**
G. Marconi state school (Cassola, Italy)
- 2014 **Student secretariat - Student collaborations**
University of Padova (Italy)
- 2012,2019 **Hotel maid**
Hotel Le Piramidi (Vicenza, Italy)
Zum Alten Gut Hotel (Wuerzburg, Germany)
- 2015-2019 **Summer camp educator**
Cassola municipality (Italy)
- 2013 **Internship in a neuropsychology, psychology, rehabilitation and psychotherapy centre**
Centro Phoenix (Romano d'Ezzelino, Italy)
- Since 2009 **Private teacher**
Private lessons to 6-to-22-year-old students to support learning and for exam preparation