

Maristella Lunardon

Teach@Tuebingen fellow, Faculty of science, Diagnostics and cognitive neuropsychology group, University of Tuebingen (Germany)

Academic career

PhD in Cognitive Neuroscience

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

October 2020 - December 2024

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

Visiting student

UNIVERSITY OF TUEBINGEN (GERMANY)

January - March 2024

- Supervisor: prof. H.C. Nuerk

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

UNIVERSITY OF PADOVA (ITALY)

June 2020 - September 2020

- Supervisor: prof. Marco Zorzi

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

CENTRO MEDICO DI FONIATRIA (PADOVA, ITALY)

March 2020 - June 2020

- Supervisor: prof. Giuseppe Cossu

Internship on developmental dyscalculia and other neurodevelopmental disorders

UNIVERSITY OF PADOVA (ITALY)

September 2019 - February 2020

- Supervisor: prof. Silvia Lanfranchi

Master degree in Cognitive Neuroscience and Clinical Neuropsychology

UNIVERSITY OF PADOVA (ITALY)

October 2014 - April 2017

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

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

UNIVERSITY OF PADOVA (ITALY)

March 2016 - March 2017

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

Bachelor degree in Psychological developmental and educational sciences

UNIVERSITY OF PADOVA (ITALY)

October 2011- July 2014

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

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

UNIVERSITY OF PADOVA (ITALY)

October 2013 - June 2014

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

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

Ad-hoc reviewer

INTERNATIONAL JOURNALS

since 2021

- Acta Psychologica; British Journal of Educational Psychology; Educational Psychology review; European Journal of Investigation in Health, Psychology and Education; 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; PsyCh Journal; Scandinavian Journal of Educational Research

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

Scientific dissemination

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 (Trieste, Italy)

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

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

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>

PREREGISTRATIONS

- Artemenko, C.*, Eckerskorn, F.*, Fioriti, C.*, Lunardon, M.*, & Nuerk, H.C.* (2025, July 7). Mathematics and Autonomic Nervous System: A Systematic Review . <https://www.crd.york.ac.uk/PROSPERO/view/CRD420251086672>. *authors in alphabetical order
- Lunardon, M., Artemenko, C., Rossi, S., Nuerk, H.C., & Cipora, K. (2024). Emotions and math-related attitudes in university students: a latent profile analysis. <https://doi.org/10.17605/OSF.IO/96TSV>
- 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., Cerni, T., & Rumiati, R. (2021, June). Cognitive and Non-Cognitive Factors Influencing the Numeracy Gender Gap in Higher Education [Oral presentation]. Second international conference of the journal "Scuola democratica".
- 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.
- Lunardon, M., Lucangeli, D., Zorzi, M., & Sella, F. (2022, Giugno). Math computerized games in the classroom: a Number Line Training in Primary School Children [Poster session]. Mathematical Cognition and Learning Society Conference, Anverse, Belgium.

Competences

LANGUAGES

- Italian: native language
- English: C2 (certified by Cambridge C1 Advanced Exam, 2020)
- German: B1

SOFTWARE

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

Training

- 2023 **Writing scientific papers | from structure to language**
Online SISSA SCICOM Masterclasses
- 2023 **Computing statistical power in R using simulations**
Mathematical Cognition and Learning Society conference workshop, held by dr. Hugues Lortie-Forgues (Loughborough, United Kingdom)
- 2021 **Python Programming Essentials**
On-line non credited course authorized by Rice University and offered through Coursera.

Other

VOLONTARY WORK

- 2024 **Traininer 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