

Stefano Sarao Mannelli

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Research Experience

- ❖ Sept. 2024 – Present: **WASP-AI Assistant Professor Tenure Track** in the Department of Computer Science and Engineering of Chalmers University of Technology and Gothenburg University, Sweden.
- ❖ Feb. 2025 – Present: **Visiting Lecturer** in School of Computer Science and Applied Mathematics, Witwatersrand University, South Africa.
- ❖ Jun. 2021 – Aug. 2024: **Research Fellow** → **Senior Research Fellow** in Gatsby Computational Neuroscience Unit and Sainsbury Wellcome Centre, University College London, UK - Supervisor: **Andrew Saxe**.
- ❖ Oct. 2020 – Jun. 2021: **Research Fellow** in the Department of Experimental Psychology, University of Oxford, UK - Supervisor: **Andrew Saxe**.
- ❖ Mar. 2020 - Apr. 2020: **Visiting researcher** with **Eric Vanden-Eijnden** at NYU, USA.
- ❖ Jan. 2019 - Mar. 2019: **Visiting researcher** at KITP, UCSB, U.S.A.
- ❖ Feb. 2018: **Visiting researcher** at Duke University, U.S.A.
- ❖ Mar. 2017 - Jul. 2017: **Research intern** with **Lenka Zdeborová** at IPHT, CEA, France.
- ❖ Jan. 2016 - Apr. 2016: **Research intern** with **Nicolas Vayatis** at CMLA, ENS Cachan, France.

Education

- ❖ Oct. 2017 – Oct. 2020: **Ph.D. in Theoretical Physics** at IPHT, CEA, France - Supervisor: **Lenka Zdeborová**;
- ❖ Sep. 2016 - Oct. 2017: **M.Sc. in Electronic Engineering** at Politecnico di Torino, Italy, grade: *110/110 cum laude*;
- ❖ Sep. 2014 - Jul. 2016: **M.Sc. in Physics of Complex Systems** at Politecnico di Torino-SISSA, Italy, grade: *110/110 cum laude*;
- ❖ Sep. 2014 - Jul. 2016: **M2, Physique Théorique** at Paris Diderot, UPMC, and ENS Cachan, France;
- ❖ Sep. 2014 - Jul. 2016: **Alta Scuola Politecnica Diploma** at Politecnico di Torino, Politecnico di Milano, Italy;
- ❖ Sep. 2014 - Jun. 2017: **M.Sc. in Engineering Physics** at Politecnico di Milano, Italy, grade: *110/110 cum laude*;
- ❖ Sep. 2011 - Jul. 2014: **B.Sc. in Mathematics for Engineering** at Politecnico di Torino, Italy, grade: *110/110 cum laude*.

Organisation of Scientific Events

- ❖ (future event) A.Y. 2026-27: KITP program on *Psychophysics and Statistical Physics of Learning in Higher Level Cognition*, Santa Barbara, USA [\[link\]](#);
- ❖ (future event) Aug. 2026: School on Analytical Connectionism, Gothenburg, Sweden [\[link\]](#) [Secured 500K SEK];
- ❖ Aug. 2025: School on Analytical Connectionism, London, UK [\[link\]](#) [Secured 25K GBP];
- ❖ Aug. 2024: School on *Analytical Connectionism*, New York, USA [\[link\]](#) [Secured 152K USD];
- ❖ Aug. 2023: School on Analytical Connectionism, London, UK [\[link\]](#) [Secured 49K GBP];
- ❖ Mar. 2024: Workshop on *Bridging Analytical and Experimental Insights into Representational Change* as part of CoSyNe, Lisbon, Portugal [\[link\]](#);
- ❖ Oct. 2023: Workshop *Analytical Approaches for Neural Network Dynamics*, Paris, FRA [\[link\]](#) [Secured 10K€];
- ❖ Aug.-Sep. 2023: School and workshop on *Analytical Connectionism*, London, UK [\[link\]](#) [Secured 42K GBP];
- ❖ Jun. 2022: Workshop *Communication Across Communities in Machine Learning Research and Practice* as part of FAccT 2022, Seoul, South Korea [\[link\]](#);
- ❖ May 2021: Workshop *Science and Engineering of Deep Learning* as part of ICLR 2021, virtual [\[link\]](#).

Ongoing Projects

- ❖ **Bias Generation and Amplification:** Developing a theoretical framework to identify the key factors contributing to ML misbehaviour against population subgroups. (*AI Alignment Grant 2026-*)
- ❖ **Connecting Dynamics and Landscapes in High-Dimension:** Connecting geometric properties in the loss landscape and optimisation dynamics in ML systems. (*WASP Starting Pkg 2025-*)
- ❖ **Bridging Biological and Artificial Neural Networks:** Investigating the learning in biological and artificial neural networks to improve both NN models and our understanding of the brain. (*WASP Starting Pkg 2025-*)

List of current PhD students and postdocs

- ❖ **Flavio Nicoletti**: Postdoc Researcher;
- ❖ **Loek van Rossem**: 3rd year Ph.D. student;
- ❖ **Chenxiao Ma**: 1st year Ph.D. student;
- ❖ **Jie Huang**: 2nd year Master student.

Grants & Awards

- ❖ May 2026: Vetenskapsfond, Wilhelm och Martina Lundgrens stiftelser , 50,000 SEK.
- ❖ Jan. 2026: AI Alignment Grant, AISI, 969,811.36 GBP.
- ❖ Jan. 2025: Academic Grant, CM Lerici Foundation, 60,000 SEK.
- ❖ Jul. 2024: Guarantor of Brains Travel grant, 1000 GBP.
- ❖ Feb. 2024: G-Research Grant, 1400 GBP.
- ❖ Nov. 2023: UK-IT Trustworthy AI Exchange Programme, 4500 GBP, The Alan Turing Institute;
- ❖ Mar. 2023: SCGB Conference Awards, 3000 GBP, Simons Foundation;
- ❖ Sep. 2017: Ph.D. scholarship from CEA;

Positions of Responsibility

- ❖ *Principal Investigator* at [Principia](#);
- ❖ *Leader* at CHAIR Mathematical Foundation of AI theme, Chalmers & GU;
- ❖ *Organiser* Colloquia at CSE department, Chalmers;
- ❖ Part of the Technical Program Committee CCN 2026;
- ❖ Action Editor for TMLR;
- ❖ Area Chair for NeurIPS, ICML, ICLR;
- ❖ Reviewer for NeurIPS, ICML, ICLR, SciPost, JSTAT, JPhysA, Physica A, PRX, TMLR.