## Curriculum Vitae: Manuel Sebastian Mariani

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Homepage: http://bit.ly/manuelsmariani

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## Current and previous academic positions.

• 04.2022-present: Research Group Leader.

University Research Priority Program "URPP Social Networks", Department of Business Administration, University of Zurich.

Since 01.2021, project leader of the URPP pillar "Networks and Organizations".

Previous position [11.2017–03.2022]: Senior Research Associate.

• 06.2021–present: Visiting Associate Professor in Complexity Science.

Institute of Fundamental and Frontier Sciences, University of Electronic Science and Technology of China, UESTC, Chengdu, China.

Previous position [09.2017–05.2021]: Research Associate Professor.

## **Education**

- 12.2013—10.2017: PhD in Physics (University of Fribourg, Switzerland). *Thesis supervisor*: Prof. Yi-Cheng Zhang.
- 09.2011—07.2013: Master in Physics (University Sapienza of Rome, Italy) *Final grade*: 110/110 cum laude; *Thesis supervisor*: Prof. Giorgio Parisi.
- 09.2008—09.2011: Bachelor in Physics (University Sapienza of Rome, Italy). *Final grade:* 110/110 cum laude; *Thesis supervisor:* Prof. Massimo Testa.

# Selected grants and awards

- **01.2023–12.2026: PI**, How individual-level choices drive collective consumer behavior in social networks", Swiss National Science Foundation project 100013-207888 (596,983CHF).
- **04.2022: Promotion** from Senior Research Associate to **Research Group Leader** at the Department of Business Administration of the University of Zurich.
- **05.2019–05.2021: Co-Applicant**, Influencer and Innovator Identification in Temporal Networks", Swiss National Science Foundation project 200021-182659 (348,169CHF).
- **01.2018–12.2020: PI**, Identification of influencers and innovators in temporal networks and its applications", UESTC research start-up grant (125,000RMB, approx. 17,500CHF).
- **07.2016:** EPS Young Researcher Grant to support travel and attendance in the SigmaPhi 2017 conference.

# Teaching and supervision

- 2018–present: Lecturer (University of Zurich, Switzerland).

  Courses (Faculty of Business, Economics, and Informatics): Machine Learning (Master; Fall 2022); Social dynamics (Master; Fall 2022); Agent-based modelling (Master, Spring 2018–2021); Network Analytics (Master, Fall 2018).
- 09.2014–10.2017: Teaching assistant (University of Fribourg, Switzerland).

- Invited lectures at PhD-level courses in various institutions, including the ETH Zurich and the Central European University.
- University of Zurich. Supervisor of 2 full-time PhD students; 2 visiting PhD students; 3 Master theses; 7 Bachelor theses.
- UESTC, Chengdu. Supervisor of 2 PhD students and 7 Master students.

#### Academic service

- Reviewer for **scientific journals** in diverse disciplines, including *PNAS*, *Nature Communications*, *Research Policy*, *Technological Forecasting and Social Change, Information Sciences*, *Methods in Ecology and Evolution*, *Swarm and Evolutionary Computation*.
- Reviewer for **grant proposals** submitted to: *Economic and Social Research Council (ESRC)*, *UK*; *National Science Center of Poland*.
- Program committee member for the *NetSci* conference (since 2020); *NetSci-X* (since 2023); *International Conference on Complex Networks and their applications* (since 2019).
- Co-organizer of the second and third edition of the **Swiss Symposium on Network Science** (03.2018 and 10.2018), local chapter of the Network Science Society.

## Selected publications

31 published papers in international journals, including *PNAS*, *Physics Reports, Communications Physics, Technological Forecasting and Social Change, Information Sciences*. Currently, 6 papers under review. Below, five significant publications:

- 1. M. Medo, M. S. Mariani, L. Lü, The fragility of opinion formation in a complex world, *Communications Physics*, 4(1), 1-10 (2021).
- 2. **M. S. Mariani**, Z.-M. Ren, J. Bascompte, C. J. Tessone, Nestedness in complex networks: observation, emergence, and implications, *Physics Reports* 813: 190 (2019).
- 3. **M. S. Mariani**, M. Medo, F. Lafond, Early identification of important patents: Design and validation of citation network metrics, *Technological Forecasting and Social Change* 146: 644-654 (2019).
- 4. **M. S. Mariani**, M. Medo, and Y.-C. Zhang, Ranking nodes in growing networks: When PageRank fails, *Scientific Reports* 5: 16181 (2015).
- 5. **M. S. Mariani**, G. Parisi, and C. Rainone. Calorimetric glass transition in a mean-field theory approach, *Proceedings of the National Academy of Sciences* 112.8: 2361-2366 (2015).

## Conferences and outreach

- I regularly present my research results at leading international conferences in marketing (invited talks at special sessions in *EMAC*, *Marketing Science*) and complexity science (*Conference on Complex Systems*, *NetSci*, *NetSci* X).
- My work on the fragility of opinion formation [Communication Physics, 2021] has been covered by several media outlet such as Swissinfo.ch, Bieler Tagblatt, and Blick,