

PERSONAL INFO

Name **MICHELE STARNINI**
E-mail michele.starnini@upf.edu

WORK EXPERIENCE

Qualification **Ramon y Cajal fellow**
Institution and dates Universitat Pompeu Fabra (Barcelona, Spain), STARTED FEBRUARY 2024

Qualification **Maria Zambrano fellow**
Institution and dates Universitat Politecnica de Catalunya (Barcelona, Spain), FEBRUARY 2022– JANUARY 2024

Qualification **Researcher**
Institution and dates Institute of Scientific Interchange (Turin, Italy), SEPTEMBER 2018 – JANUARY 2022

Qualification **J.S. McDonnell postdoctoral fellow**
Institution and dates Universitat de Barcelona (Spain), FEBRUARY 2015 – AUGUST 2018

Qualification **Research PhD Candidate**
Institution and dates Universitat Politecnica de Catalunya (Barcelona, Spain), FEBRUARY 2011 – JANUARY 2015

EDUCATION

Qualification **PhD in Computational and Applied Physics** with honors, “*Excellent cum laude*”
Institution and dates Universitat Politecnica de Catalunya (Barcelona, Spain), FEBRUARY 2011 – OCTOBER 2014

Qualification **Master in Theoretical Physics** with honors, “*110/110 summa cum laude*”
Institution and dates Università di Pisa (Italy), SEPTEMBER 2008 – OCTOBER 2010

Qualification **Bachelor in Physics** with honors, “*110/110 summa cum laude*”
Institution and dates Università di Pisa (Italy), SEPTEMBER 2005 – JULY 2008

RESEARCH GRANTS

Funding agency: SPANISH MINISTRY OF EDUCATION: CONSOLIDACION INVESTIGADORA (CNS2023-144156)
Quantity and dates 200.000 EUROS, (2025-2027)

Funding agency: SPANISH MINISTRY OF EDUCATION: RAMON Y CAJAL FELLOW (RYC2022-037932-I)
Quantity and dates 400.000 EUROS, (2024-2029)

Funding agency: SPANISH MINISTRY OF EDUCATION: MARIA ZAMBRANO FELLOW
Quantity and dates 100.000 EUROS, (2022-2023)

Funding agency: J. S. McDONNELL FOUNDATION: “Studying Complex Systems” (grant 220020414)
Quantity and dates 200.000 DOLLARS, (2015-2018)

SCIENTIFIC IMPACT

H-index & Citations: H-index of 31, 6700+ citations (Google Scholar)

Publications: *Proceedings of the National Academy of Sciences, Physical Review X, Physical Review Letters, Physical Review Research, Physical Review E, Journal of Theoretical Biology, PLOS Computational Biology, Scientific Reports, Social Networks, Journal of Statistical Mechanics: Theory and Experiment, New Journal of Physics, EPJ Data Science, Nature Human Behaviour, Journal of Economic Behavior & Organization.*

Press Coverage: Spanish and Italian national press and podcasts.

SELECTED TALKS

MARCH 2026	"Foundations of Spreading Phenomena on Complex Networks", Sao Paulo, (Brazil)
OCTOBER 2022	Session-open speaker at "Conference on Complex Systems", Palma de Mallorca (Spain)
JULY 2022	"Future Directions in Multilayer Networks", Boston (USA)
JANUARY 2020	"Resilience and Performance of Networked System", ETH Zurich (Switzerland)
JUNE 2019	"72 hours of Complexity", workshop at Institute of Advanced Studies, Lucca (Italy)
JUNE 2018	"Higher Orders Models in Network Science", NetSci 2018 Satellite, Paris (France)
AUGUST 2017	Seminar at the Centre for Complex Systems, University of Sydney (Australia)
JUNE 2016	"Frontier Forum of Network Science", Fudan University, Shanghai (China)
JUNE 2016	"When Complex Networks meet Complex Data", NetSci 2016 Satellite, Seoul (Korea)

TEACHING

<u>Course and Role:</u>	Introduction to Network Science (Instructor and Coordinator)
<u>Institution and Dates:</u>	Univeristat Pompeu Fabra, 2024 – ONGOING
<u>Course and Role:</u>	Numerical Methods (Teaching Assistant)
<u>Institution and Dates:</u>	Univeristat Pompeu Fabra, 2024
<u>Course and Role:</u>	Laboratory of Physics (Teaching Assistant)
<u>Institution and Dates:</u>	Univeristat Politenica de Catalunya, 2022 – 2023
<u>Course and Role:</u>	Computational Physics (Teaching Assistant)
<u>Institution and Dates:</u>	Univeristat de Barcelona, 2017

CV SUMMARY

Scientific excellence. [During my career](#), I authored more than 50 papers, being the first author of 18 papers (i.e., being the author leading the theoretical or experimental development of the paper) and the corresponding or senior author of 15 papers (i.e., being the author leading the conceptualisation of the paper and designing the research framework). My works collected 6700+ citations (source Google Scholar, 3000+ according to WoS), for an h-index of 31 (22 according to WoS). The interdisciplinarity of my scientific activity is witnessed by my works being published in physics, sociological, biological, and computer science journals, such as PNAS, PRL, PRX, PRE, PRR, SciRep, Nature Human Behavior, EPJDS, WWW and ICWS conferences.

Leadership. I have led and managed several national, European, and extra-European research projects. I have been Principal Investigator of a project granted by the most prestigious private foundation financing research in complex systems, the J.S.McDonnell Foundation. I am currently Principal investigator of a recently started project "Consolidacion Investigadora 2023" funded by the Spanish National Research Council (Agencia Estatal de Investicacion). I have organized and coordinated many scientific activities, such as workshops and doctoral schools. I visited and have been invited by several research groups around the world. I supervised two completed PhD thesis (Leonardo Di Gaetano, awarded on 15-01-2025 from Central European University, and Jaume Ojer, awarded on 30-07-2025 from Universitat Politecnica de Catalunya) and 12 master thesis (from University of Turin and Politecnico di Torino). I am currently the director of four PhD students at Universitat Pompeu Fabra (Kaloyan Danovski and Mattia Tarchini, expected defence in 2027, Roger Gonzalez and Aleix Nicolas, expected defence in 2028). I am currently directing a postdoctoral researcher: Alberto Ceria (hired from June 2025 until May 2027).

Impact on society: I have been an elected member of the Council of the Complex System society. I regularly act as a reviewer for major Physics and interdisciplinary journals (PNAS, PRL, PRX, PRE, PRR, SciRep, EPJDS, etc), as well as a member of the program committee of major computer science conferences (ICWSM, WWW). I am Associate Editor of Frontiers in Complex Networks, a journal launched in February 2023. In 2025, I have been appointed to the Editorial Board of Physical Review E. Some of my works have been covered by the (Spanish) national press or in podcasts. I divulged general Physics on a Youtube (Italian) channel. During my years at ISI Foundation (2018-2022) I collaborated with the largest Italian bank to develop industrial applications of my research, regarding the analysis of financial transaction networks aimed at anti-money-laundering goals. I am habilitated as Associate Professor in Catalunya (AQU) and have the Spanish R3 certificate.

SELECTED PUBLICATIONS

- [1] **M Starnini**, F Baumann, T Galla, D Garcia, G Iñiguez, M Karsai, J Lorenz, K Sznajd (first and leading author of this review)
[Opinion dynamics: Statistical physics and beyond](#)
Under review at Review of Modern Physics (2026)
- [2] J Ojer, D Cárcamo, R Pastor-Satorras, **M Starnini** (senior, corresponding author)
[Charting multidimensional ideological polarization across demographic groups in the USA](#)
Nature Human Behaviour, 1-11 (2025)
- [3] LAN Fard, A Bisin, **M Starnini**, M Tizzoni
[Modeling adaptive forward-looking behavior in epidemics on networks](#)
Journal of Economic Behavior & Organization 232, 106914 (2025)
- [4] L Di Gaetano, F Battiston, **M Starnini** (senior, corresponding author)
[Percolation and topological properties of temporal higher-order networks](#)
PHYS. REV. LETT. 132 (3), 037401 (2024)
- [5] M Cinelli, Gdf Morales, A Galeazzi, W Quattrociocchi, **M Starnini**
[The echo chamber effect on social media](#)
Proceedings of the National Academy of Sciences, 118 (9), (2021)
- [6] F Baumann, P Lorenz-Spreen, Im Sokolov, **M Starnini*** (senior, corresponding author)
[Emergence of polarized ideological opinions in multidimensional topic spaces](#)
Phys. Rev. X 11, 011012 (2021)
- [7] F Baumann, P Lorenz-Spreen, Im Sokolov, **M Starnini*** (senior, corresponding author)
[Modeling echo chambers and polarization dynamics in social networks](#)
PHYS. REV. LETT. 124 (4), 048301 (2020)
- [8] W. Cota, S. Ferreira, R. Pastor-Satorras, And **M. Starnini*** (senior, corresponding author)
[Quantifying echo chamber effects in information spreading over political communication networks](#)
EPJ DATA SCIENCE 8, 35 (2019)
- [9] **M. Starnini***, J. P. Gleeson and M. Boguña (first and co-corresponding author)
[Equivalence between non-Markovian and Markovian dynamics in epidemic spreading processes](#)
PHYS. REV. LETT. 118, 128301 (2017)
- [10] **M. Starnini**, A. Baronchelli And R. Pastor-Satorras (first author)
[Modeling human dynamics of face-to-face interaction networks](#)
PHYS. REV. LETT. 110, 168701 (2013)