# Lorenzo Zino — Curriculum Vitæ

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# **Brief Summary**

MS in Applied Mathematics at Politecnico di Torino (2014) and PhD in Pure and Applied Mathematics from Università di Torino and Politecnico di Torino (joint program, 2018), both cum laude. From 2018 to 2022, I held research fellowships at New York University (US), Politecnico di Torino (Italy), and University of Groningen (Netherlands). In 2022, I joined the Department of Electronics and Telecommunications, Politecnico di Torino as an Assistant Professor. My research interests include modeling, analysis, and control of dynamical processes on networks (e.g., epidemics, opinion dynamics, innovation diffusion), graph theory, applied probability, and game theory. My research production includes 60+ peer-reviewed papers in journal and proceedings of international conferences and 2 book chapters. I gave 40+ presentations and seminars at national and international conferences, universities, and research centers, and I organized 5 invited sessions and chaired 2 sessions. I worked as lecturer and teaching assistant for 10+ Bachelor and Master courses at Politecnico di Torino and ESCP Europe. I co-supervised 1 PhD student, 7 master students, and several bachelor students. I am associate editor for the Journal of Computational Science, member of the conference editorial board for the IEEE CSS and the EUCA, and of the program committee of the International Conference on Complex Networks and their Applications.

### **Current Position**

Oct 2023 - ongoing: Senior Assistant Professor (RTDb)

Department of Electronics and Telecommunications, Politecnico di Torino, Torino, Italy

### **Previous Positions**

Oct 2022 - Sep 2023: Junior Assistant Professor (RTDa)

Department of Electronics and Telecommunications, Politecnico di Torino, Torino, Italy

Oct 2019 - Sep 2022: PostDoc Researcher

Faculty of Science and Engineering, University of Groningen, Groningen, The Netherlands

Jun 2019 - Jul 2019: PostDoc Assistant Research Scientist

Department of Mechanical and Aerospace Engineering, Tandon School of Engineering, New York University, Brooklyn NY, US

Jun 2018 - May 2019: Research Assistant

Department of Mathematical Sciences "G. L. Lagrange," Politecnico di Torino, Torino, Italy

Nov 2014 - Oct 2018: Phd Student in Pure and Applied Mathematics

Department of Mathematical Sciences "G. L. Lagrange," Politecnico di Torino, Torino, Italy

### **Education and Titles**

Italian National Academic Qualification as Associate Professor: Automatic Control — November 20, 2023

**PhD in Pure and Applied Mathematics**: Politecnico di Torino, Università di Torino (with Prof. F. Fagnani) — *grade: cum laude* (Oct 9, 2018)

MS Mathematical Engineering: Politecnico di Torino (with Prof. F. Fagnani) —grade: 110/110 cum laude (Jul 24, 2014)

BS Applied Mathematics: Politecnico di Torino (with Prof. P. Siri) — grade: 110/110 (Oct 11, 2012)

High School Degree: Liceo Scientifico "G. Galilei" (Borgomanero, Italy) — grade: 100/100 — Jul 2008

### Visiting Periods.....

Centre for Optimisation and Decision Science, Curtin University, Perth, Australia: Jul-Sep 2023

Department of Mathematical Sciences, Politecnico di Torino, Torino, Italy: Sep 2019, Nov 2019

Department of Mechanical and Aerospace Engineering, New York University, Brooklyn NY, US: Dec 2017-Mar 2018

Department of Automatic Control, Lund University, Lund, Sweden: Sep 2015-Dec 2015

#### Participation to Conferences, Workshops, Schools, and Symposia...

- o 2024 European Control Conference, Stockholm, Sweden, Jun 25-28, 2024
- ELLIIT Focus Period Symposium on Network Dynamics and Control, Linköping, Sweden, Sep 20-22, 2023
- o AUTOMATICA.IT 2023 Catania, Italy, Sep 6-8, 2023
- o 22nd IFAC World Congress, Yokohama, Japan, Jul 9-14, 2023
- o 2023 American Control Conference, San Diego CA, US, May 31 Jun 2, 2023
- Workshop "From behaviors and codes to intelligent network systems," Padoa, Italy, May 11-12, 2023
- Minisymposium "Preparing for the next crisis: Modeling and simulation for disaster risk reduction," Groningen, The Netherlands, April 4, 2023
- o Workshop on Algorithmic Game Theory, Mechanism Design and Learning, Turin, Italy, Nov 8-11, 2022
- 41st Benelux Meeting on Systems and Control, Bruxelles, Belgium, Jul 5-7, 2022
- Dutch Network Science Society Symposium 2022, Leiden, The Netherlands, May 19, 2022
- o NetSciX 2022, Porto, Portugal, Feb 8-11, 2022
- o IEEE 60th CDC Conference on Decision and Control (online), Dec 13-17, 2021
- o 29th Mediterranean Conference on Control and Automation (online), Jun 22-25, 2021
- o IEEE CDC Workshop on Dynamics in Social and Economic Networks (online), Dec 12-13, 2020
- o NetSci 2020 (online), Sep 17-25, 2020
- o AUTOMATICA.IT 2020 (online), Sep 9-11, 2020
- o 21st IFAC World Congress (online), Jul 13-17, 2020
- IEEE-CSS Italy Workshop on Modeling and Control of the COVID-19 Outbreak (online), Apr 24, 2020
- 39th Benelux Meeting on Systems and Control, Elspeet, The Netherlands, Mar 10-12, 2020
- o 8th Conference on Complex Networks and their Applications, Lisbon, Portugal, Dec 10-12, 2019
- o Workshop on Network Dynamics in the Social, Economic, and Financial Sciences, Turin, Italy, Nov 5-8, 2019
- Workshop on Resilient Control of Infrastructure Networks, Turin, Italy, Sep 24-27, 2019
- NetSci 2019: Conference of the Network Science Society, Burlington VT, US, May 27-31, 2019
- o 13th SICC International Tutorial Workshop, Turin, Italy, Oct 29-30, 2018
- o 7th IFAC Workshop NecSys, Groningen, The Netherlands, Aug 27-28, 2018
- o The 17th Annual European Control Conference, Limassol, Cyprus, Jun 12-15, 2018
- o 6th Conference on Complex Networks and their Applications, Lyon, France, Nov 29 Dec 1, 2017
- o 20th IFAC World Congress, Toulouse, France, Jul 10-14, 2017
- o First Italian Meeting on Probability and Mathematical Statistics, Turin, Italy, Jun 19-22, 2017
- o 5th Workshop on Complex Networks and their Applications, Milan, Italy, Nov 30 Dec 2, 2016
- o 22nd International Symposium MTNS, Minneapolis MN, US, Jul 12-15, 2016
- o School on Information Processing for Large Networks, Les Diablerets, Switzerland, Jun 8-12, 2015

# **Teaching Experience**

- Industrial Automation Laboratory Professional Bachelor at Politecnico di Torino and at Turin Polytechnic University in Tashkent, main lecturer, 30/40h, Fall 2023 and Spring 2024 (co-lecturer, 20h, Fall 2022)
- Modelling and simulation of mechatronic systems, MEng at Politecnico di Torino, main lecturer, 60h, Fall 2023
- Networked Control Systems, MEng at Politecnico di Torino, graduate TA, 16h, Fall 2023
- o Convex optimization and engineering applications, MEng at Politecnico di Torino, graduate TA, 30h, Fall 2022
- o Modeling and Analysis of Complex Networks, BEng at University of Groningen, guest lecturer, 2h, Spring 2020-22
- o Mathematical Analysis II, BE at Politecnico di Torino, graduate TA, 50h, Fall 2018
- o Fundamentals of Mathematics 2, BMgt at ESCP Europe, graduate TA, 6/9h, Fall 2016–18 and Spring 2018
- o Complex Analysis, BS in Physics and Mathematics at Politecnico di Torino, graduate TA, 30h, Spring 2017
- o Dynamics on Networks, MMath at Politecnico di Torino, graduate TA and co-lecturer, 20/30h, Spring 2015–17
- o Complex Analysis and Statistics, BEng at Politecnico di Torino, undergraduate TA, 50h, Spring 2014

#### Other Academic Activities.....

**PhD Supervisor**: I am currently co-supervising Luca Ambrosino (with G. C. Calafiore and A. Rizzo, in collaboration with VinUniversity) and Jinze Wu (with A. Rizzo, joint PhD program with Southern University of Science and Technology).

**Thesis Supervisor**: I am currently supervising Francesco Celino and A. Casu (with A. Rizzo), Giovanni Marinello (with M. Pagone). I co-supervised Ronak Pillai (with M. Cao and M. Ye), Christian Sorkale and Sreekar Ravipati (with M. Cao), Luca Ambrosino (with A. Rizzo and M. Cao), and Valentina Gulino (at Teoresi, with A. Rizzo). I tutored and supervised several bachelor students with prof. F. Fagnani (Politecnico di Torino) and prof. M. Cao (University of Groningen).

**Piano Lauree Scientifiche**: I organized a laboratory on "Mathematics and Society" with prof. Francesca Ceragioli and prof. Barbara Franci for high school students.

Academic Tutor: Mathematical Analysis I and Complex Analysis at the student campus "Camplus Lingotto," Torino.

#### **Advisory Member of PhD Examining Committees:**

- Luke Gong, Faculty of Science and Engineering, University of Groningen, the Netherlands (April 19, 2022)
- •Kathinka Frieswijk, Faculty of Science and Engineering, University of Groningen, the Netherlands (June 21, 2024)

Courses of Study Boards: Ingegneria Gestionale e della Produzione (effective member since 2023); Ingegneria Informatica, del Cinema e Meccatronica (effective member since 2023)

# Grants, Scholarships, and Awards

- 2024: Wiley Top Downloaded Articles during its first 12 months of publication ([J26] in Advanced Theory and Simulations)
- **2023**: Wiley Top Downloaded Articles during its first 12 months of publication ([J17] in Advanced Theory and Simulations; [J21, J24] in International Journal of Robust and Nonlinear Control)
- 2023: Wiley Top Cited Article 2021-2022 ([J17] in Advanced Theory and Simulations)
- 2023: Five Highly Cited Articles 2021 ([J18] in Journal of the Royal Society Interface in 2021)
- 2022, 2023: Excellent Reviewer for the IEEE Transactions on Network Science & Engineering
- 2022: Wiley Top Cited Article 2020-2021 ([J17] in Advanced Theory and Simulations)
- 2021: Borgomanerese dell'anno. Person of the year from the Municipality of Borgomanero (NO), Italy
- 2018: Honorable Mention. Finalist of the Young Author Award at the NecSys 2018 ([C5])
- 2016: Quality Award. Recognition of excellence in research. Politecnico di Torino (€7,000)
- 2014-2017: PhD Scholarship. Full Salary. Università di Torino Politecnico di Torino (€13,600/year)
- 2009: Iniziativa "Vinci un PC." Award for best students in the entrance test. Politecnico di Torino

## **Publications**

# Journal Papers.

- [J43]: Hoffmann T., Ye M., Zino L., Cao M., Rauws W., and Bolderdijk J.W., Overcoming Inaction: An Agent-Based Modelling Study of Social Interventions that Promote Systematic Pro-Environmental Change. Journal of Environmental Psychology, 94, 102221, 2024 (doi.org/10.1016/j.jenvp.2023.102221).
- [J42]: Gao T., Zino L., Ye M., Effect of network structure and committed minority placement in promoting social diffusion. IEEE Transactions on Computational Social Systems, 11(2), 2326-2339, 2024 (doi.org/10.1109/TCSS.2023.3303568).
- [J41]: Dehghani Aghbolagh H., Ye M., Zino L., Chen Z., and Cao M., Coevolutionary Dynamics of Actions and Opinions in Social Networks. IEEE Transactions on Automatic Control, **68**(12), 7708-7723, 2023 (doi.org/10.1109/TAC.2023.3290771).
- [J40]: Frieswijk K., Zino L., Cao M., A Polarized Temporal Network Model to Study the Spread of Recurrent Epidemic Diseases in a Partially Vaccinated Population. IEEE Transactions on Network Science and Engineering, 10(6), 3732-3743, 2023 (doi.org/10.1109/TNSE.2023.3272472).
- [J39]: Zino L., Como G., and Fagnani F., Fast Spread in Controlled Evolutionary Dynamics. IEEE Transactions on Control of Network Systems, 10(3), 1555–1567, 2023 (doi.org/10.1109/TCNS.2023.3234593).
- [J38]: Zino L., Rizzo A., Porfiri M., *The impact of deniers on epidemics: A temporal network model.* IEEE Control Systems Letters, **7**, 685–690, 2022 (doi.org/10.1109/LCSYS.2022.3219772).
- [J37]: Zino L., Ye M., and Cao M., Facilitating innovation diffusion in social networks using dynamic norms. PNAS Nexus, 1(5), pgac229, 2022 (doi.org/10.1093/pnasnexus/pgac229).
- [J36]: Truszkowska A., Zino L., Butail S., Caroppo E., Jiang Z.P., Rizzo A., and Porfiri M., Exploring a COVID-19 endemic scenario: high-resolution agent-based modeling of multiple variants. Advanced Theory and Simulations, 6, 2200481, 2022 (doi.org/10.1002/adts.202200481).

Cover of the January 2023 Issue of Advanced Theory and Simulations.

- [J35]: Burbano Lombana D.A., **Zino L.**, Butail S., Caroppo E., Jiang Z.P., Rizzo A., and Porfiri M., *Activity-driven network modeling and control of the spread of two concurrent epidemic strains*. Applied Network Science, **7**, 66, 2022 (doi.org/10.1007/s41109-022-00507-6).
- [J34]: Wang Q., Diao W., Zino L., Peng X., and Zhong W., Observer-Based Secure Event-Triggered Bipartite Consensus Control of Linear Multiagent Systems Subject to Denial-of-Service Attacks. IEEE Transactions on Circuits and Systems II: Express Briefs, 69(12), 5054-5058, 2022 (doi.org/10.1109/TCSII.2022.3201513).
- [J33]: Calafiore G.C., Parino F., Zino L., and Rizzo A., Dynamic Planning of a Two-Dose Vaccination Campaign with Uncertain Supplies. European Journal of Operational Research, 304(3), 1269–1278, 2023 (doi.org/10.1016/j.ejor.2022.05.009).
- [J32]: Wang Q., Zino L., Tan D., Xu J., and Zhong W., Fully Distributed Quantized Secure Bipartite Consensus Control of Nonlinear Multiagent Systems Subject to Denial-of-Service Attacks. Neurocomputing, 505, 101–115, 2022

- (doi.org/10.1016/j.neucom.2022.07.047).
- [J31]: Govaert A., Zino L., Tegling E., Population games on dynamic community networks. IEEE Control Systems Letters, 6, 2695–2700, 2022 (doi.org/10.1109/LCSYS.2022.3174916).
- [J30]: Frieswijk K., Zino L., Ye M., Rizzo A., Cao M., *A mean-field analysis of a network behavioural-epidemic model.* IEEE Control Systems Letters, **6**, 2533–2538, 2022 (doi.org/LCSYS.2022.3168260).
- [J29]: Truszkowska A., Fayed M., Wei S., **Zino L.**, Butail S., Caroppo E., Jiang Z.P., Rizzo A., and Porfiri M., *Urban determinants of COVID-19 spread: A comparative study across three cities in New York State*. Journal of Urban Health, **99**(5), 909-921, 2022 (doi.org/10.1007/s11524-022-00623-9).
- [J28]: Bongiorno C. and Zino L., A multi-layer network model to assess school opening policies during a vaccination campaign: a case study on COVID-19 in France. Applied Network Science, 7, 12, 2022 (doi.org/10.1007/s41109-022-00449-z).
- [J27]: Wang Q., He W., Zino L., Tan D., and Zhong W., Bipartite Consensus for a Class of Nonlinear Multi-agent Systems Under Switching Topologies: A Disturbance Observer-Based Approach. Neurocomputing, 488, 130–143, 2022 (doi.org/10.1016/j.neucom.2022.02.081).
- [J26]: Truszkowska A., Zino L., Butail S., Caroppo E., Jiang Z.P., Rizzo A., and Porfiri M., *Predicting the effects of waning vaccine immunity against COVID-19 through high-resolution agent-based modeling*. Advanced Theory and Simulations, 5, 2100521, 2022 (doi.org/10.1002/adts.202100521).
- Cover of the June 2022 Issue of Advanced Theory and Simulations. Wiley Top Downloaded Article 2022.
- [J25]: Hagens A., Cordova-Pozo K., Postma M.J., Wilschut J., Zino L., van der Schans J., Reconstructing the effectiveness of policy measures to avoid next-wave COVID-19 infections and deaths using a dynamic simulation model: implications for health technology assessment of vaccination. Frontiers in Medical Technologies, 3, 666581, 2022 (doi.org/10.3389/fmedt.2021.666581)
- [J24]: Frieswijk K., Zino L., and Cao M., A time-varying network model for sexually transmitted infections accounting for behavior and control actions. International Journal of Robust and Nonlinear Control, 33(9), 4784–4807, 2023 (doi.org/10.1002/rnc.5930).
- Wiley Top Downloaded Article 2021.
- [J23]: Zino L. and Cao M., Analysis, Prediction, and Control of Epidemics: A Survey from Scalar to Dynamic Network Models. IEEE Circuits and Systems Magazine, 21(4), 4–23, 2021 (doi.org/10.1109/MCAS.2021.3118100).
- [J22]: Ye M., Zino L., Risselada H., Bolderdijk J. W., Mlakar Ž., Fennis B. M., and Cao M., *Collective patterns of social diffusion are shaped by individual inertia and trend-seeking*. Nature Communications, 12, 5698, 2021 (doi.org/10.1038/s41467-021-25953-1).
- [J21]: Parino F., Zino L., Calafiore G.C., and Rizzo A., A model predictive control approach to optimally devise a two-dose vaccination rollout: A case study on COVID-19 in Italy. International Journal of Robust and Nonlinear Control, 33(9), 4808–4824, (doi.org/10.1002/rnc.5728).
- Wiley Top Downloaded Article 2021.
- [J20]: Ye M., Zino L., Rizzo A., and Cao M., Game-theoretic modeling of collective decision making during epidemics. Physical Review E, 104, 024314, 2021 (doi.org/10.1103/PhysRevE.104.024314).
- [J19]: Truszkowska A., Thakore M., Zino L., Butail S., Caroppo E., Jiang Z.P., Rizzo A., and Porfiri M., *Designing the safe reopening of US towns through high-resolution agent-based modeling*. Advanced Theory and Simulations, 4, 2100157, 2021 (doi.org/10.1002/adts.202100157).
- Cover of the September 2021 Issue of Advanced Theory and Simulations.
- [J18]: Parino F., Zino L., Porfiri M., and Rizzo A., *Modelling and predicting the effect of social distancing and travel restrictions on COVID-19 spreading*. Journal of the Royal Society Interface, 18, 20200875, 2021 (doi.org/10.1098/rsif.2020.0875). Top five most highly cited papers in the Journal of the Royal Society Interface in 2021.
- [J17]: Truszkowska A., Behring B., Hasanyan J., Zino L., Butail S., Caroppo E., Jiang Z.P., Rizzo A., and Porfiri M., High-resolution agent-based modeling of COVID-19 spreading in a small town. Advanced Theory and Simulations, 4, 2000277, 2021 (doi.org/10.1002/adts.202000277).
- Cover of the March 2021 Issue of Advanced Theory and Simulations. Wiley Top Cited Paper 2020–2021 and 2021–2022. Wiley Top Downloaded Article 2021.
- [J16]: Como G., Fagnani F., and **Zino L.**, *Imitation dynamics in population games on community networks*. IEEE Transactions on Control of Network Systems, **8**(1), 65–76, 2021 (doi.org/10.1109/TCNS.2020.3032873).
- [J15]: Hasanyan J., Zino L., Truszkowska A., Rizzo A., and Porfiri M., *Analysis of the Heterogeneous Vectorial Network Model of Collective Motion*. IEEE Control Systems Letters, **5**(3), 1103–1108, 2021 (doi.org/10.1109/LCSYS.2020.3010630).
- [J14]: Nadini M., Zino L., Rizzo A., and Porfiri M., A multi-agent model to study epidemic spreading and vaccination strategies in an urban-like environment. Applied Network Science, 5, 68, 2020 (doi.org/10.1007/s41109-020-00299-7).
- [J13]: Zino L., Ye M., and Cao M., A two-layer model for coevolving opinion dynamics and collective decision-making in complex social systems. Chaos: An Interdisciplinary Journal of Nonlinear Science, 30, 083107, 2020 (doi.org/10.1063/5.

0004787).

- [J12]: Zino L., Rizzo A., and Porfiri M., On assessing control actions for epidemic models on temporal networks. IEEE Control Systems Letters, 4(4), 797–802, 2020 (doi.org/10.1109/LCSYS.2020.2993104)
- [J11]: Zino L., Rizzo A., and Porfiri M., Analysis and control of epidemics in temporal networks with self-excitement and behavioral changes. European Journal of Control 54, 1–11, 2020 (doi.org/10.1016/j.ejcon.2019.12.007).
- [J10]: Hasanyan J., Zino L., Burbano Lombana D.A., Rizzo A., and Porfiri M., Leader-follower consensus on activity-driven networks. Proceedings of the Royal Society A, 476(2233), 2020 (doi.org/10.1098/rspa.2019.0485).
- [J9]: Zino L., Rizzo A., and Porfiri M., *Consensus over activity driven networks*. IEEE Transactions on Control of Network Systems, **7**(2), 866–877, 2020 (doi.org/10.1109/TCNS.2019.2949387).
- [J8]: Surano F.V., Bongiorno C., Zino L., Porfiri M., and Rizzo A., Backbone Reconstruction in Temporal Networks from Epidemic Data. Physical Review E, 100, 042306, 2019 (doi.org/10.1103/PhysRevE.100.042306).
- [J7]: Bongiorno C., Zino L., and Rizzo A., A novel framework for community modeling and characterization in directed temporal networks. Applied Network Science, 4(10), 2019 (doi.org/10.1007/s41109-019-0119-28).
- [J6]: Nakayama S., Krasner E., Zino L., and Porfiri M., Social information and spontaneous emergence of leaders in human groups. Journal of the Royal Society: Interface, 16(151), 2019 (doi.org/10.1098/rsif.2018.0938).
- [J5]: Zino L., Rizzo A., and Porfiri M., *Modeling memory effects in activity driven networks*. SIAM Journal on Applied Dynamical Systems, **17**(4), 2830–2854, 2018 (doi.org/10.1137/18M1171485).
- [J4]: Fagnani F., and **Zino L.**, *Time to extinction for the SIS epidemic model: new bounds on the tail probabilities.* IEEE Transactions on Network Science and Engineering, **6**(1), 74–81, 2019 (doi.org/10.1109/TNSE.2017.2772320).
- [J3]: Zino L., Rizzo A., and Porfiri M., An analytical framework for the study of epidemic models on activity driven networks. Journal of Complex Networks, 5(6), 924–952, 2017 (doi.org/10.1093/comnet/cnx056).
- [J2]: Fagnani F., and **Zino L.**, *Diffusion of innovation in large scale graphs*. IEEE Transactions on Network Science and Engineering, **4**(2), 100–111, 2017 (doi.org/10.1109/TNSE.2017.2678202).
- [J1]: Zino L., Rizzo A., and Porfiri M., *A continuous-time discrete-distribution theory for activity-driven networks.* Physical Review Letters, 117(22), 228302, 2016 (doi.org/10.1103/PhysRevLett.117.228302).
- [Under Review]: Calafiore G.C., Fracastoro G., Zino L., Identification of Piecewise Constant Parameters in Nonlinear Models
- [Under Review]: Parino F., Zino L., Rizzo A., Optimal control of endemic epidemics diseases with behavioral response.
- [Under Review]: Wu J., Zino L., Lin Z., Rizzo A., Distributed Finite-Time Cooperative Localization for Three-Dimensional Sensor Networks.
- [Under Review]: Zino L., Ye M., and Anderson B.D.O., Modeling and analyzing competitive epidemic diseases with partial and waning virus-specific and cross-immunity.
- [Under Review]: Mlakar Ž., Bolderdijk J. W., Risselada H., Fennis B. M., Ye M., Zino L., and Cao M., Social Tipping Games: Experimental Paradigms for Studying Social Movements.
- [Under Review]: Franci B., Fabiani F., and Zino L., Generalized Nash equilibrium problems under partial-decision information with biased agents.
- [Under Review]: Zino L., Fracastoro G., Proskurnikov A., and Calafiore G.C., On the Influence of Network Structure on the Resilience and Losses of Financial Systems.

### Chapters in Books

- [BC2]: Zino L., Rizzo A., and Barzel B., *Network Science and Automation* in Handbook of Automation, 2nd ed. (ed. S.Y. Nof), pp. 251–274, Springer, 2023 (doi.org/10.1007/978-3-030-96729-1\_11).
- [BC1]: Zino L., Cao M., Social Diffusion Dynamics in Cyber-Physical-Human Systems in Cyber-Physical-Human Systems: Fundamentals and Applications (ed. A. Annaswamy et al.), pp. 43-70, Wiley, 2023 (doi.org/10.1002/9781119857433. ch3).
- [Under Review]: Zino L., Ambrosino L., Rizzo A., and Cao M., Systems and control approaches for the coevolution of epidemics and behavioral response: Modeling, identification, and empirical validation on a COVID-19 case study.

# Conference Papers

- [C20]: Zino L., Giardini F., Vilone D., and Cao M., On Modeling Collective Risk Perception via Opinion Dynamics. To appear in the Proceedings of the 2024 European Control Conference, Jun 2024, Stockholm, Sweden.
- **[C19]**: **Zino L.**, Ye M., Rizzo A., and Calafiore C.G., *On Adaptive-Gain Control of Replicator Dynamics in Population Games*. The  $62^{nd}$  IEEE Conference on Decision and Control, Dec 2023, Singapore (doi.org/10.1109/CDC49753.2023.10383983).
- [C18]: Pagone M., Zino L., and Novara C., A Pontryagin-based Game-theoretic Approach for Robust Nonlinear Model Predictive Control. The  $62^{nd}$  IEEE Conference on Decision and Control, Dec 2023, Singapore (doi.org/10.1109/CDC49753. 2023.10384002).

- **[C17]**: **Zino L.**, Ye M., and Anderson B.D.O., *On a bi-virus epidemic model with partial and waning immunity*. The  $22^{nd}$  IFAC World Congress, Jul 2023, Yokohama, Japan. (doi.org/10.1016/j.ifacol.2023.10.1551)
- **[C16]**: **Zino L.** and Ye M., On incentivizing innovation diffusion in a network of coordinating agents. The  $22^{nd}$  IFAC World Congress, Jul 2023, Yokohama, Japan. (doi.org/10.1016/j.ifacol.2023.10.1766)
- **[C15]**: Frieswijk K., **Zino L.**, A.S. Morse, and M. Cao, *Modeling the Co-evolution of Climate Impact and Population Behavior: A Mean-Field Analysis*. The  $22^{nd}$  IFAC World Congress, Jul 2023, Yokohama, Japan. (doi.org/10.1016/j.ifacol.2023.10.355)
- [C14]: Frieswijk K., Zino L., Cao M., Modelling the Effect of Vaccination and Human Behaviour on the Spread of Epidemic Diseases on Temporal Networks. The  $21^{st}$  European Control Conference, Jul 2022, London, UK. (doi.org/10.23919/ECC55457.2022.9838287)
- [C13]: Zino L., Ye M., and Cao M., On modeling social diffusion under the impact of dynamic norms. The  $60^{th}$  IEEE Conference on Decision and Control, Dec 2021, Austin TX, US (doi.org/10.1109/10.1109/CDC45484.2021.9682999).
- [C12]: Cenedese C., Zino L., Cucuzzella M., and Cao M., Optimal policy design to mitigate epidemics on networks using an SIS model. The 60<sup>th</sup> IEEE Conference on Decision and Control, Dec 2021, Austin TX, US (doi.org/10.1109/CDC45484. 2021.9683737).
- **[C11]**: Frieswijk K., **Zino L.**, and Cao M., *Modelling Behavioural Preferences in Epidemic Models for Sexually Transmitted Infections on Temporal Networks*. The  $20^{th}$  European Control Conference, Jun-Jul 2021, Rotterdam, The Netherlands (doi.org/10.23919/ECC54610.2021.9654961).
- **[C10]**: Cunha R., **Zino L.**, and Cao M., *On imitation dynamics in population games with Markov switching*. The  $20^{th}$  European Control Conference, Jun-Jul 2021, Rotterdam, The Netherlands (doi.org/10.23919/ECC54610.2021.9655147).
- [C9]: Zino L., Ye M., and Cao M., A Coevolutionary Model for Actions and Opinions in Social Networks. The  $59^{th}$  IEEE Conference on Decision and Control, Dec 2020, Jeju Island, Republic of Korea (10.1109/CDC42340.2020.9303954).
- **[C8]**: Risselada H., Bolderdijk J. W., Mlakar Ž., Fennis B. M., Ye M., and **Zino L.**, Releasing the brake: How disinhibition frees people and facilitates innovation diffusion. Proceedings of the European Marketing Academy  $(49^{th})$ , May 2020, Budapest, Hungary (A2020-64211)
- [C7]: Zino L., Rizzo A., and Porfiri M., Effect of self-excitement and behavioral factors on epidemics on activity driven networks. The 18<sup>th</sup> European Control Conference, Jun 2019, Naples, Italy (doi.org/10.23919/ECC.2019.8795748)
- **[C6]**: Bongiorno C., **Zino L.**, and Rizzo A., *On unveiling the community structure of temporal networks*. The  $57^{th}$  IEEE Conference on Decision and Control, Dec 2018, Miami Beach FL, US (doi.org/10.1109/CDC.2018.8619441).
- **[C5]**: **Zino L.**, Como G., and Fagnani F., *Controlling Evolutionary Dynamics in Networks: A Case Study.* The  $7^{th}$  IFAC Workshop on Distributed Estimation and Control in Networked Systems, Aug 2018, Groningen, The Netherlands (doi.org/10.1016/j.ifacol.2018.12.060).

Finalist of the Young Author Award.

- **[C4]**: **Zino L.**, Como G., and Fagnani F., *On stochastic imitation dynamics in large-scale networks*. The  $17^{th}$  European Control Conference, Jun 2018, Limassol, Cyprus (doi.org/10.23919/ECC.2018.8550419).
- [C3]: Zino L., Como G., and Fagnani F., On Imitation Dynamics in Potential Population Games. The  $56^{th}$  IEEE Conference on Decision and Control, Dec 2017, Melbourne, Australia (doi.org/10.1109/CDC.2017.8263751).
- [C2]: Zino L., Como G., and Fagnani F., Fast Diffusion of a Mutant in Controlled Evolutionary Dynamics. The  $20^{th}$  IFAC World Congress, Jul 2017, Toulouse, France (doi.org/10.1016/j.ifacol.2017.08.1429).
- **[C1]**: Fagnani F. and **Zino L.**, Diffusion of innovation in large scale graphs: a mean field analysis.  $22^{nd}$  International Symposium on Mathematical Theory of Networks and Systems, Jul 2016, Minneapolis MN, US.
- [Under Review]: Wu J., Zino L., Lin Z., and Rizzo A., Solving Ultra Sparse Feature Visual SLAM based on Angle Measurements and Barycentric Coordinates.
- [Under Review]: Zino L. and Rizzo A., On a Susceptible-Infected-Susceptible Epidemic Model with Reactive Behavioral Response on Higher-Order Temporal Networks .
- [Under Review]: R. Raineri, G. Como, F. Fagnani, M. Ye, and Zino L., On a On Controlling a Coevolutionary Model of Actions and Opinions.

### Abstracts in Conferences and Workshops.....

- [A34]: Giardini F., Vilone D., Zino L., and Cao M., Homophily in opinion networks affects collective risk perception in heterogeneous populations. Accepted for presentation at ISCRAM 2024, May 2024, Munster, Germany.
- [A33]: Zino L., Ye M., Rizzo A., and Calafiore C.G., *On Adaptive-Gain Control for the Replicator Equation*. AUTOMATICA.IT 2023, Sep 2023, Catania, Italy.
- [A32]: Pagone M., Zino L., and Novara C., *A Minmax Robust MPC based on Pontryagin differential game approach*. AUTOMATICA.IT 2023, Sep 2023, Catania, Italy.
- [A31]: Gao T., Zino L., Ye M., On the role of network topology and committed minority in facilitating social diffusion.

- NetSci 2023, Jul 2023, Vienna, Austria.
- [A30]: Frieswijk K., Zino L., S. Morse, Cao M., The co-evolution of population behavior and climate impact.  $42^{nd}$  Benelux Meeting on Systems and Control, Mar 2023, Elspeet, The Netherlands.
- [A29]: Govaert A., Zino L., Tegling E., On evolutionary population games on community networks with dynamic densities. Accepted for presentation at the  $25^{st}$  International Symposium on Mathematical Theory of Networks and Systems, Sep 2022, Bayreuth, Germany.
- [A28]: Zino L., Ye M., Cao M., Using dynamic norms to facilitate innovation diffusion in networks.  $41^{st}$  Benelux Meeting on Systems and Control, Jul 2022, Bruxelles, Belgium.
- [A27]: Frieswijk K., Zino L., Cao M., The Effect of Vaccination and Human Behaviour in Epidemic Models.  $41^{st}$  Benelux Meeting on Systems and Control, Jul 2022, Bruxelles, Belgium.
- [A26]: Zino L., Tortasso E., Ye M., Cao M., and Rizzo A., *A game-theoretic model for human decision-making during epidemics: application and validation on COVID-19 in Italy.* NetSciX 2022, Feb 2022, Porto, Portugal.
- [A25]: Zino L., Ye M., Mlakar Ž., Bolderdijk J. W., Risselada H., Fennis B. M., and Cao M., *Incentivizing social diffusion on networks using a novel game-theoretic model*. NetSciX 2022, Feb 2022, Porto, Portugal.
- [A24]: Hoffmann T., Bolderdijk J.W., Rauws W., Zino L., Ye M., Misguided Expectations Hamper Pro-Environmental Behaviour Change: A Neighbourhood Study. 11th annual Sustainability Psychology Preconference (SPSP Annual Convention), Feb 2022, San Francisco CA, US.
- [A23]: Parino F., Zino L., Calafiore G.C.., and Rizzo A., *On optimally devising a two-shot vaccination rollout through MPC*. AUTOMATICA.IT 2021 Workshop, Sep 2021, Catania, Italy.
- [A22]: Zino L., Ye M., Rizzo A., and Cao M., *Novel game-theoretic modeling of collective decision-making during epidemics*. Networks 2021: A Joint Sunbelt and NetSci Conference, Jul 2021, Washington DC, US
- [A21]: Parino F., Zino L., Porfiri M., and Rizzo A., A metapopulation model to assess the effectiveness of social distancing and travel restrictions on COVID-19 spreading: the Italian case study. Networks 2021: A Joint Sunbelt and NetSci Conference, Jul 2021, Washington DC, US
- [A20]: Cenedese C., Cucuzzella M., Zino L., Cao M., Scherpen J.M.A., and van der Schaft A.J., *On an optimal control approach toward mitigating an SIS epidemic model*. 2021 European Control Conference, Jun-Jul 2021, Rotterdam, the Netherlands.
- [A19]: Zino L., Ye M., Rizzo A., and Cao M., Modeling Collective Behavioral Response to the COVID-19 Pandemic and Non-Pharmaceutical Interventions. 2021 Mediterranean Conference on Control and Automation, Jun 2021, Bari, Italy.
- [A18]: Zino L., Rizzo A., and Porfiri M., Optimizing self-protective behaviors and confinement in epidemic models on temporal networks. NetSci 2020, Sep 2020, Rome, Italy.
- [A17]: Zino L., Ye M., and Cao M., A novel framework to capture the coevolution of opinions and decisions in complex networks. NetSci 2020, Sep 2020, Rome, Italy.
- [A16]: Ye M., Zino L., Mlakar Ž., Bolderdijk J. W., Risselada H., Fennis B. M., and Cao M., *Understanding and Modeling Behavioral Mechanisms in Social Diffusion*. NetSci 2020, Sep 2020, Rome, Italy.
- [A15]: Parino F., Zino L., Rizzo A., and Porfiri M. A Metapopulation activity-driven network model for COVID-19 in Italy. AUTOMATICA.IT 2020 Workshop, Sep 2020, Cagliari, Italy.
- [A14]: Como G., Fagnani F., **Zino L.**, On imitation dynamics for potential population games over networks with community patterns. The  $21^{th}$  World Congress of the International Federation of Automatic Control, Jul 2020, Berlin, Germany.
- [A13]: Zino L., Rizzo A., and Porfiri M., On consensus and collective behavior over heterogeneous temporal networks. The  $21^{th}$  World Congress of the International Federation of Automatic Control, Jul 2020, Berlin, Germany
- [A12]: Zino L., Parino F., Porfiri M., and Rizzo A., *A Metapopulation activity-driven network model for COVID-19 in Italy.* IEEE-CSS Italy Workshop on Modeling and Control of the COVID-19 Outbreak, Apr 2020.
- [A11]: Zino L., Ye M., and Cao M., On the inclusion of human cognitive mechanisms in social diffusion. The  $39^{th}$  Benelux Meeting on Systems and Control, Mar 2020, Elspeet, The Netherlands.
- [A10]: Mlakar Ž., J. W. Bolderdijk, B. M. Fennis, H. Risselada, M. Ye, and **Zino L.**, *Releasing the brake: How disinhibition frees people and facilitates social change*. Society for Personality and Social Psychology's Annual Convention 2020, Feb 2020, New Orleans LA, US.
- [A9]: Zino L., Rizzo A., and Porfiri M., On consensus over heterogeneous temporal networks. The  $8^{th}$  International Conference on Complex Networks and their Applications, Dec 2019, Lisbon, Portugal.
- [A8]: Zino L., Rizzo A., and Porfiri M., How Self-Excitement Dynamics Affects Epidemic Spreading in Time-Varying Networks. NetSci 2019, May 2019, Burlington VT, US.
- [A7]: Nakayama S., Krasner E., Zino L., and Porfiri M., *Influence of Social Information on Network Dynamics in Human Groups*. SIAM Conference on Dynamical Systems 2019, May 2019, Snowbird UT, US.
- [A6]: Bongiorno C., Zino L., and Rizzo A., On Community Detection in Activity-Driven Networks. NetSci 2018, Jun 2018,

Paris, France.

[A5]: Zino L., Como G., Fagnani F., Fast diffusion of mutant mosquitoes in controlled evolutionary dynamics. The  $6^{th}$  International Conference on Complex Networks and their Applications, Nov-Dec 2017, Lyon, France.

[A4]: Zino L., Spreading processes in large scale graphs. First Italian Meeting on Probability and Mathematical Statistics, Jun 2017, Turin, Italy.

[A3]: Zino L., Rizzo A., and Porfiri M., *A continuous-time discrete-distribution theory for activity-driven networks*. NetSci-X 2017, Jan 2017, Tel Aviv, Israel.

[A2]: Zino L., Rizzo A., and Porfiri M., A continuous-time discrete-distribution theory for activity-driven networks. The  $5^{th}$  International Workshop on Complex Networks and their Applications, Nov-Dec 2016, Milan, Italy.

[A1]: Rizzo A., and **Zino L.**, *Prediction of spread of epidemics in activity-driven networks*. 2016 Workshop on Complexity in Engineering (COMPENG), Jul 2016, Catania, Italy.

[Under Review]: Zino L., Fracastoro G., Proskurnikov A., and Calafiore G.C., On the Influence of Network Structure on the Resilience and Losses of Financial Systems.

# Talks, Seminars, and Posters

**[T47]**: On Modeling Collective Risk Perception via Opinion Dynamics. 2024 European Control Conference, June 25-28, 2024, Stockholm, Sweden (invited).

**[T46]**: Using mathematics to help unlock social diffusion. IEEE CSS Society Chapter at Kharagpur, Feb 6, 2024, Kharagpur, India (online, invited).

**[T45]**: How mathematical modeling can help unlock social diffusion. Department of Advanced Computing Sciences, Maastricht University, Jan 24, 2024, Maastricht, The Netherlands (invited).

[T44]: On Adaptive-Gain Control for the Replicator Equation. AUTOMATICA.IT 2023, Sep 7, 2023, Catania, Italy.

**[T43]**: How mathematics can help unlock social diffusion. Centre for Optimisation and Decision Science, Curtin University, Jul 27, 2023, Perth, Australia (invited).

**[T42]**: Modeling the Co-evolution of Climate Impact and Population Behavior: A Mean-Field Analysis. The  $22^{nd}$  IFAC World Congress, Jul 12, 2023, Jokohama, Japan.

**[T41]**: On incentivizing innovation diffusion in a network of coordinating agents. The  $22^{nd}$  IFAC World Congress, Jul 11, 2023, Jokohama, Japan.

**[T40]**: The Impact of Deniers on Epidemics: A Temporal Network Model. The 2023 American Control Conference, Jun 2, 2023, San Diego CA, US (invited).

[T39]: On incentivizing innovation diffusion in a network of coordinating agents. Workshop "From behaviors and codes to intelligent network systems," May 12, 2023, Padoa, Italy (invited).

[T38]: Modeling collective decision-making during epidemics. Minisymposium "Preparing for the next crisis: Modeling and simulation for disaster risk reduction," Apr 4, 2023, Groningen, The Netherlands (invited).

**[T37]**: Using dynamic norms to facilitate innovation diffusion in networks. The  $41^{st}$  Benelux Meeting on Systems and Control, Jul 6, 2022, Bruxelles, Belgium.

**[T36]**: Toward realistic modeling of social diffusion. Department of Automatic Control, Lund University, May 10, 2022, Lund, Sweden (invited, online).

[T35]: A game-theoretic model for human decision-making during epidemics: application and validation on COVID-19 in Italy. NetSci-X 2022, Feb 10, 2022, Porto, Portugal

[T34]: Incentivizing social diffusion on networks using a novel game-theoretic model. NetSci-X 2022, Feb 10, 2022, Porto, Portugal.

[T33]: Toward a realistic modeling of social diffusion on networks. Institute for Information and Communication Technologies, Electronics and Applied Mathematics, Université catholique de Louvain, Jan 24, 2022, Louvain-la-Neuve, Belgium (invited).

**[T32]**: On modeling social diffusion under the impact of dynamic norms. The  $60^{th}$  IEEE Conference on Decision and Control, Dec 16, 2021, Austin TX, US (online, invited).

**[T31]**: Collective patters of social diffusion are shaped by individual inertia and trend-seeking. Norms and Networks Cluster (NNC) Group Meeting, Faculty of Behavioural and Social Sciences, University of Groningen, Nov 5, 2021, Groningen, the Netherlands.

**[T30]**: Modeling Collective Behavioral Response to the COVID-19 Pandemic and Non-Pharmaceutical Interventions. Mediterranean Conference on Control and Automation, Jun 24, 2021, Bari, Italy (online, invited).

**[T29]**: Consensus over activity driven networks: a starting point to examine model-based control with heterogeneous and time-varying patterns of interactions. Controlling Complex Networks (Satellite Symposium of Network 2021), Jun 23, 2021, Washington DC, US (online, invited).

[T28]: Modelling collective decision-making during epidemics. RxCovea Journal Club, Apr 19, 2021 (online, invited).

**[T27]**: Optimizing self-protective behaviors and confinement in epidemic models on temporal networks. The  $59^{th}$  IEEE Conference on Decision and Control, Dec 17, 2020, Jeju Island, Republic of Korea (online).

**[T26]**: A Coevolutionary Model for Actions and Opinions in Social Networks. The  $59^{th}$  IEEE Conference on Decision and Control, Dec 14, 2020, Jeju Island, Republic of Korea (online, invited).

**[T25]**: *Including behavioral mechanisms in models for social diffusion.* Dynamics in Social and Economic Networks (CDC Workshop), Dec 12–13, 2020, Jeju Island, Republic of Korea (online, invited).

**[T24]**: On imitation dynamics in population games on networks with community patterns. STAEOnline — Online Seminars in Systems Theory and Engineering, Oct 16, 2020, Melbourne, Australia (online, invited).

**[T23]**: Optimizing self-protective behaviors and confinement in epidemic models on temporal networks. NetSci 2020, Sep 25, 2020, Rome, Italy (online).

**[T22]**: A novel framework to capture the coevolution of opinions and decisions in complex networks. NetSci 2020 Sep 24, 2020, Rome, Italy (online).

[T21]: On imitation dynamics in population games on networks with community patterns. Multiscale Analysis of Dynamical Processes on Networks (NetSci 2020 Satellite), Sep 20, 2020, Rome, Italy (online, invited).

**[T20]**: A Metapopulation activity-driven network model for COVID-19 in Italy. AUTOMATICA.IT 2020, Sep 10, 2020, Cagliari, Italy (online, invited).

**[T19]**: On imitation dynamics for potential population games over networks with community patterns. The 21<sup>th</sup> World Congress of the International Federation of Automatic Control, Jul 2020, Berlin, Germany (online).

**[T18]**: On consensus and collective behavior over heterogeneous temporal networks. The  $21^{th}$  World Congress of the International Federation of Automatic Control, Jul 2020, Berlin, Germany (online)

[T17]: A Metapopulation activity-driven network model for COVID-19 in Italy. IEEE-CSS Italy Workshop on Modeling and Control of the COVID-19 Outbreak, Apr 24, 2020 (online).

**[T16]**: On the inclusion of human cognitive mechanisms in social diffusion. The  $39^{th}$  Benelux Meeting on Systems and Control, Mar 11, 2020, Elspeet, The Netherlands.

**[T15]**: On consensus over heterogeneous temporal networks. The  $8^{th}$  International Conference on Complex Networks and their Applications, Dec 10, 2019, Lisbon, Portugal.

**[T14]**: On imitation dynamics in potential population games. Network Dynamics in the Social, Economic, and Financial Sciences, Nov 5, 2019, Turin, Italy (invited).

[T13]: How to Achieve Fast Spread in Controlled Evolutionary Dynamics. Resilient Control of Infrastructure Networks, Sep 26, 2019, Turin, Italy (invited).

[T12]: How Self-Excitement Dynamics Affects Epidemic Spreading in Time-Varying Networks. NetSci 2019, May 29, 2019, Burlington VT, US.

**[T11]**: Fast diffusion of mutant mosquitoes in controlled evolutionary dynamics: a case study. The  $13^{th}$  SICC International Tutorial Workshop "Complexity and the City", Oct 29, 2018, Turin, Italy.

[T10]: Diffusion Processes on Networks. PhD Dissertation Defense, Oct 9, 2018, Torino, Italy.

**[T9]**: Controlling Evolutionary Dynamics in Networks: A Case Study. The  $7^{th}$  IFAC Workshop on Distributed Estimation and Control in Networked Systems, Aug 28, 2018, Groningen, the Netherlands (poster).

[T8]: Controlling Spreading Processes in Networks. DISMA Weekly Seminar, Jul 11, 2018, Torino, Italy (invited).

[T7]: On stochastic imitation dynamics in large-scale networks. The  $17^{th}$  European Control Conference, Jun 15, 2018, Limassol, Cyprus (invited).

[T6]: Diffusion Processes on Networks. DSL Weekly Seminar, Mar 2, 2018, Brooklyn NY, US (invited).

**[T5]**: Fast diffusion of mutant mosquitoes in controlled evolutionary dynamics. The  $6^{th}$  International Conference on Complex Networks and their Applications, Nov 30, 2017, Lyon, France.

**[T4]**: Fast Diffusion of a Mutant in Controlled Evolutionary Dynamics. The  $20^{th}$  World Congress of the International Federation of Automatic Control, Jul 13, 2017, Toulouse, France.

**[T3]**: Spreading processes in large scale graphs. First Italian Meeting on Probability and Mathematical Statistics, Jun 20, 2017, Turin, Italy (invited).

**[T2]**: A continuous-time discrete-distribution theory for activity-driven networks. The  $5^{th}$  International Workshop on Complex Networks and their Applications, Dec 2, 2016, Milan, Italy.

**[T1]**: Diffusion of innovation in large scale graphs: a mean field analysis.  $22^{nd}$  International Symposium on Mathematical Theory of Networks and Systems, Jul 14, 2016, Minneapolis MN, US.

# **Outreach and Media Coverage**

- Advanced Science News, Waning immunity and COVID-19 boosters modeled in digital town. 28/2/22
- o La Stampa, L'ingegnere di Borgomanero che studia gli algoritmi per capire la diffusione del virus. 3/1/22
- o La Stampa, Borgomanerese dell'anno il giovane matematico Lorenzo Zino. 24/10/21
- o Curtin University Media Release, New insights into social norms can drive positive social changes. 1/10/21
- Science LinX, How a committed minority can change society. 29/9/21
- o SIAM News, Novel Mathematical Framework Explores How Opinions and Decisions Coevolve. 22/7/21
- o PoliFlash, Covid-19: un modello per prevedere la diffusione del virus in Italia e ottimizzare il piano vaccinale. 10/2/21
- o Advanced Science News, Vaccinating the most vulnerable first may not have the greatest impact on COVID-19. 27/1/21
- New York Post, Mass COVID-19 vaccinations accomplish more than targeted vaccine roll outs. 23/1/21
- o PoliFlash Magazine, Un modello ad alta risoluzione per prevedere l'evoluzione del Covid-19. 22/1/21
- o EurekAlert!, New COVID-19 model shows little benefit in vaccinating high-risk individuals first. 19/1/21
- $\circ$  ScienceDaily, New mathematical model shows how diversity speeds consensus. 8/1/20
- o ScienceDaily, In small groups, people follow high-performing leaders. 21/2/19
- Futurity, How leaders rise from small groups. 21/2/19
- o Contagion Live, Fighting Flu With Math: Predicting Peak Season, Spread, and Vaccination Patterns. 18/2/19
- o Infection Control Today, NYU Researchers Fight Flu With Math. 7/2/19
- o La Stampa Novara, Spiego con la matematica la diffusione delle epidemie. 27/12/18
- o PoliFlash Magazine, Le interazioni sociali possono influire sulla diffusione di una malattia?. 12/12/18
- o NSF News, Researchers find clue to epidemics in 'bursty' social behavior. 12/12/18
- o EurekAlert, Clue to Epidemics In Bursty Social Behavior. 12/12/18
- o SIAM News, Can Social Interactions Affect Spread of Disease?. 12/12/18
- o La Stampa, Il matematico torinese: stesso algoritmo per spiegare epidemie e bufale mediatiche. 7/1/17
- o La Stampa Torino, Fronteggiare le epidemie si può, è matematico: Si diffondono con i meccanismi dei Social. 6/12/16
- o Repubblica, Epidemie, nuovo modello del Politecnico di Torino: Si propagano come i trend topic su Twitter. 6/12/16
- o R&D Magazine, New Model to Predict Disease Outbreak. 30/11/16

## **Further Professional and Scientific Activities**

Journal Associate Editor: Journal of Computational Science (since 2021)

**Conference Editorial Board**: IEEE CSS (Conference on Decision and Control, American Control Conference, since 2023), EUCA (European Control Conference, since 2024), ICSTCC (since 2024)

**Program Committee Member**: International Conference on Complex Networks and their Applications (since 2019); International Conference on Control, Decision and Information Technologies (since 2024)

**Organizer of Invited Sessions**: 59th, 60th, 61st, 62nd IEEE Conference on Decision and Control (CDC 2020,21,22,23), 29th Mediterranean Conference on Control and Automation (MED 2021)

Session Chair: 29th Mediterranean Conference on Control and Automation (MED 2021), AUTOMATICA.IT 2023

Journal Reviewer: Reviewer for more than 50 Journals, including Automatica; IEEE Trans. Automat. Control; IEEE Trans. Control Netw. Syst.; IEEE Control Syst. Lett.; IEEE Trans. Netw. Sci. Eng.; IEEE Trans. Control Syst. Technol.; IEEE Trans. Circuits Syst. II; IEEE Signal Process. Lett.; SIAM J. Control Optim.; IFAC J. Syst. Control; Int. J. Robust Nonlinear Control; Int. J. Control; Comput. Oper. Res.; Sci. Rep.; Chaos; J. Roy. Soc. Interface; J. Math. Sociol.; PLOS ONE.

**Conference Reviewer**: Several national and international conferences, including IEEE CDC, ACC, ECC, IFAC World Congress **Project Funding Reviewer**: Swiss National Science Foundation.

**Professional Memberships**: Member of the Network Science Society (since 2019), the IEEE (Institute of Electrical and Electronics Engineers, since 2021) and of the CSS (Control Systems Society, since 2021), Affiliate of the IFAC (International Federation of Automatic Control, since 2021), Istituto Nazionale di Alta Matematica — GNAMPA (2015–19, 2023–)

**Member of Funded Research Projects**: FAIR — Future Artificial Intelligence Research 2022–2026 (Team Member); PRIN Higher-order interactions in social dynamics with application to monetary networks 2023–2025 (Team Member)

### Other Skills

OS: Microsoft Windows XP, Vista, 7, 10, 11

**Development**: MATLAB (advanced level), HTML, Microsoft Excel, SQL, R, PL-SQL (intermediate level), C, PENTAHO, MATHEMATICA, WinBUGS, MINITAB, RAPIDMINER (basic level)

Languages: Italian (mother-tongue); English (full professional proficiency); Dutch (beginner)

Last update: Torino, Italy, April 7, 2024