Curriculum Vitae of Nicola Perra

Personal Information

Given Name: Nicola
Last Name: Perra
E-mail: n.perra@greenwich.ac.uk
WebSite: www.nicolaperra.com

Current Positions

Associate Professor in Network Science — 09/2018–
Networks and Urban Systems Centre,
Business School, Greenwich University, London, UK

Visiting Professor — 04/2020–
University of Turin, Italy

Economic Graph Researcher — 10/2017–
Linkedin

Positions Held

Senior Lecturer in Network Science — 08/2015 – 07/2018
Centre for Business Network Analysis,
Business School, Greenwich University, London, UK

Associate Research Scientist — 09/2014 – 07/2015
Department of Physics, Northeastern University, Boston, USA

Post-Doctoral Research Associate — 09/2011 – 08/2014
Department of Physics, College of Computer and Information Sciences,
Bouvè College of Health Sciences, Northeastern University, USA

Research Associate — 07/2009 – 08/2011
CNetS-Center for Complex Networks and Systems Research,
School of Informatics and Computing Indiana University, USA

Visiting Scholar — 11/2008 – 07/2009
CNetS-Center for Complex Networks and Systems Research,
School of Informatics and Computing Indiana University, USA

Education

Post-Graduate Certificate in Higher Education — *September* 2016
University of Greenwich, UK

Ph.D. in Physics, *University of Cagliari, Italy* — *January* 2011
Thesis Title: "Reaction-Diffusion Processes on Complex Networks"
Grade: Excellent

M.S. in Physics, *University of Cagliari, Italy* — *October* 2007
Thesis Title: "Centrality Measures on Complex Networks"
Grade: 110/110 cum Laude

B.S. in Physics, *University of Cagliari, Italy* — *September* 2005
Thesis Title: "Elastic Diffusion: Born, Iconale and partial waves approximations"
Grade: 110/110 cum Laude

Funding

Co-PI — 2020 – 2023

Horizon 2020 (Twinning Action)
Building the Future: Excelling in Computational and Quantitative Social Sciences in Turkey
Award: 898,000 Euros

PI 2021
World Bank Consultancy Project
The impact of non-pharmaceutical interventions during the COVID-19 pandemic and the role of digital economy
Award: 10,000 Dollars

Co-PI 2020 – 2021
U.S. Army Research Lab
DTeam2vec: modeling team performance using representational learning on temporal graphs
Award: 152,000 Dollars

PI 2019 – 2022
Doctoral Training Alliance and Marie Sklodowska Curie
Modelling behavioural changes induced by infectious disease via physical activity trackers
Award: 68,000 Euros (One fully funded PhD fellowship)

PI 2018 – 2019
US Army Lab
Modelling and characterising complex contagion processes on time-varying networks
Award: 150,000 Dollars

Co-PI 2016 – 2019
Volkswagen Foundation
Summer School Series on Methods for Computational Social Science
Award: 250,000 Euros

Co-PI 2017–
Linkedin Economic Graph Challenge
Uncovering the role of team composition in companies success

PI 2015 – 2020
FBUS grants, Business School, Greenwich University
1) Understanding contagion spreading processes of cyber security threats through social networks
2) Understanding behavioural changes induced by disease outbreaks
3) Learning Analytics on Moodle: a Pilot Study
4) Interdisciplinarity, Category Memberhsip and Scientific Career
5)To what extent investors prefer having cross-listed firms in their portfolio? The case of the UK and Eurozone stock markets.
6) Towards the characterisation of social adaptive behaviours
Total Awards: 37,400 Pounds

Key Personnel 2014 – 2015
NIH Modeling of Infectious Disease Agent Study (MIDAS) Centers of Excellence (U54)

Key Personnel 2012 – 2014
Intelligence Advanced Research Projects Activity (IARPA) via Department of Interior National Business Center (DoI / NBC) contract number D12PC00285

Key Personnel 2011 – 2012
NSF grant CNS-1065133 and ARL Cooperative Agreement W911NF-09-2-0053

	Fellowship Master & Back Fellowship, Autonomous Region of Sardinia, Italy Award: 16,000 Euros	2008 – 2009
	Fellowship Abbott Laboratories	2008 – 2009
	Research contract COSMOLAB	2008 – 2009
Honors and Awards	*Outstanding Achievement in Research Award, University of Greenwich*	2020 – 2021
	Excellence in Research Award, University of Greenwich	2017 – 2018
	Economic Graph Researcher, Linkedin	2018 – 2019
	Nominated Fellow of the Institute for Scientific Interchange	2017 – 2020
	Best Paper Honourable Mention Award, WWW17	2017

Editoral Activity

I am in the editorial board of:

3. PLoS ONE (Complex Networks, Digital Epidemiology, Data Science)
2. Online Social Networks and Media (Elsevier)
1. Complexity (Hindawi)

External Examiner

I am an external examiner at:

1. University of Exeter, BSc and MSci Data Science 2019-2023

Teaching Experiences	**Course Leader**, University of Turin Digital Epidemiology	2020 – 2022
	Course Leader, University of Greenwich Global Networks and Innovation (MA/MBA International Business)	2016 – 2022
	Course Leader, University of Greenwich Business Project (MA/MBA International Business)	2015 – 2022
	Module Leader, Northeastern University Network Science Data	2014 – 2015

Guest Lecturer, Northeastern University 2014 – 2015
Network Science (Course of [redacted])

Associate Lecturer, Northeastern University 2013 – 2014
Introduction to Network Science from the Human cell to Facebook

Associate Lecturer, Northeastern University 2012 – 2013
Introduction to Network Science from the Human cell to Facebook

Associate Lecturer, Indiana University 2010 – 2011
Mathematical foundation of Complex Networks

Teaching Assistant, University Cagliari 2008 – 2009
Calculus

Teaching Assistant, University Cagliari 2008 – 2009
General Physics

Supervised students/researchers

Post-Docs
Dr [redacted], University of Greenwich

PhD Students
[redacted], University of Greenwich
[redacted], University of Exeter
[redacted], University of Greenwich (graduated in 2020, now at IBM)

Master Students
[redacted], University of Turin
[redacted], University of Pisa
[redacted], Polytechnic University of Turin

Co-supervised students

PhD Students
[redacted], Northeastern University
[redacted], Northeastern University
[redacted], Northeastern University
[redacted], Northeastern University
[redacted] Northeastern University

Visiting PhD Students
[redacted], ETH Zurich
[redacted], UPC Barcelona
[redacted], University of Parma
[redacted], University of Zaragoza

Visiting Master Students
[redacted], Toulouse University

Professional Membership

Complex Systems Society. Elected as Council member, elected in the Executive(2015-2018; 2018-2021) and Steering (2014-2017; 2017-2020) Committees
Network Society
American Physical Society

Softwares, and online projects

Covid19 News Tracker

Explore our analysis here: *https://covid19.scops.ai/*

GLEAMviz, the Global Epidemic and Mobility Model
Available for download here: *www.gleamviz.org*

TweetPolitik, monitoring 2013 Italian elections on Twitter
Explore the website *tweetpolitik.weebly.com*

The Twitter of Babel, mapping the language use worldwide
Explore the website *www.ccs.neu.edu/home/qianz/MapTwitterLanguage/v1/index.html*

Predicting the Italian Flu Season
Explore the predictions *www.influweb.it/previsioni*

Tracking the global discussion about ebola
Explore the tool *www.ebolatracking.org*

Flu forecasts in multiple countries
Explore the tool *http://fluoutlook.org/*

Books

3. **Twitterology. Social Science Through Social Media**, B. Goncalves, **N. Perra**, Springer (Upcoming 2021)
2. **Charting the next pandemic: modelling infectious disease spreading in the data science age**, A. Pastore, N. Perra, L. Rossi, N. Samay, A. Vespignani, Springer, 2019
1. **Social Phenomena: From Data to Models**, edited by **N. Perra** and B. Goncalves, Springer, 2015

Book Chapters

7. **The effects of local and global links creation mechanisms on spreading processes**
K. Sun, E. Ubaldi, M. Karsai, J, Zhang, **N. Perra**
In Temporal Network Theory, Springer 2019
6. **Attention on weak ties in social and communication networks**
L. Weng, M. Karsai, **N. Perra**, F. Menczer, A. Flammini
In Spreading dynamics in social systems, Springer 2018
5. **Control strategies of contagion processes in Time-Varying networks**
N. Perra, M. Karsai
In Temporal Network Epidemiology, Springer, 2017
4. **Diffusion Processes In Time Varying Networks**
B. Goncalves, **N. Perra**
The Oxford Handbook of Communication Science in the Digital Age, Oxford University Press, 2019
3. **Modeling and predicting human infectious diseases**
N. Perra, B. Goncalves
Social Phenomena: From Data to Models, Springer, Springer, 2015
2. **Modeling contact and mobility based response to the spreading of infectious diseases**
N. Perra, A. Vespignani
Modeling the Interplay Between Human Behavior and the Spread of Infectious Diseases, Springer, 2012
1. **Social networks, contagion processes and the spreading of infectious diseases**
B. Goncalves, **N. Perra**, A. Vespignani

Systems Biology: A Handbook, Job Dekker, Marc Vidal and A.J. Marian Walhout (Editors), Springer 2012

Publications

56. **Cryptic transmission of SARS-CoV-2 and the first COVID-19 wave in Europe and the United States**
J.T. Davis, M. Chinazzi, **N. Perra**, K. Mu, A. Pastore y Piontti, M. Ajelli, N. E. Dean, C. Gioannini, M. Litvinova, S. Merler, L. Rossi, K. Sun, X. Xiong, M.E. Halloran, I. M. Longini Jr., C. Viboud, A. Vespignani
Submitted, medRxiv 2021.03.24.21254199, 2021

55. **Estimating the spreading and dominance of SARS-CoV-2 VOC 202012/01 (lineage B.1.1.7) across Europe**
N. Gozzi, M. Chinazzi, J.T. Davis, K. Mu, A. Pastore y Piontti, M. Ajelli, **N. Perra**, A. Vespignani
Submitted, medRxiv 2021.02.22.21252235, 2021

54. **Estimating the effect of social inequalities in the mitigation of COVID-19 across communities in Santiago de Chile**
N. Gozzi, M. Chinazzi, M. Tizzoni, L. Ferres, A. Vespignani, **N. Perra**
Nature Communications, 12, 2429, 2021

53. **Non-pharmaceutical interventions during the COVID-19 pandemic: a review**
N. Perra
Physics Reports, 2021.02.001, arXiv:2012.15230, 2021

52. **The importance of non-pharmaceutical interventions during the COVID-19 vaccine rollout**
N. Gozzi, P. Bajardi, **N. Perra**
Plos Computational Biology, 17(9): e1009346, medRxiv 2021.01.09.21249480, 2021

51. **Self-initiated behavioral change and disease resurgence on activity-driven networks**
N. Gozzi, M. Scudeler, D. Paolotti, A. Baronchelli, **N. Perra**
Phys. Rev. E 104, 014307, 2021

50. **Estimating the establishment of local transmission and the cryptic phase of the COVID-19 pandemic in the USA**
J.T. Davis, M. Chinazzi, **N. Perra**, K. Mu, A. Pastore y Piontti, M. Ajelli, N. E. Dean, C. Gioannini, M. Litvinova, S. Merler, L. Rossi, K. Sun, X. Xiong, M.E. Halloran, I. M. Longini Jr., C. Viboud, A. Vespignani
Submitted, medRxiv 2020.07.06.20140285, 2020

49. **Finding Patient Zero: Learning Diffusion Source with Graph Neural Networks**
C. Shah, N. Dehmamy, M. Chinazzi, N. Perra, A. Vespignani, A.-L. Barabsi, R. Yu
Submitted, 2020

48. **NUTMEG: Network Evaluation Multiplayer Game for studying contagion processes on networks**
T. Brett, G. Loukas, Y. Moreno, **N. Perra**
Submitted, 2020

47. **Collective Response to Media Coverage of the COVID-19 Pandemic on Reddit and Wikipedia: Mixed-Methods Analysis**
N. Gozzi, M. Tizzani, M. Starnini, F. Ciulla, D. Paolotti, A. Panisson, **N. Perra**
Journal of Medical Internet Research, 22(10):e21597, arxiv:2006.06446, 2020

46. **Ethical implications of network data in business and management settings**
B. Cronin, R. De Vita, G. Conaldi, **N. Perra**, S. Gorgoni, Z. Zhu, F. Pallotti, L. Rocha
Social Networks, 67, 29-40, 2021

45. **Towards a data-driven characterization of behavioral changes induced by the seasonal flu**
N. Gozzi, D. Perrotta, D. Paolotti, **N. Perra**
PLoS Computational Biology, e1007879, 2020

44. **Phase Transitions in Information Spreading on Structured Populations**
J. Davis, **N. Perra**, Q. Zhang, Y. Moreno, A. Vespignani
Nature Physics, 2020

43. **Explore with caution: mapping the evolution of scientific interest in Physics**
A. Aleta, S. Meloni **N. Perra**, Y. Moreno
EPJ Data Science, 8, 27, arxiv:1904.06306, 2019

42. **The spreading of computer viruses on time-varying networks**
T. Brett, G. Loukas, Y. Moreno, **N. Perra**
Phys. Rev. E Rapid Communication, 99, 050303, arxiv:1901.02801, 2019

41. **Modelling Opinion Dynamics in the Age of Algorithmic Personalisation**
N. Perra, L.E.C. Rocha
Scientific Reports, 9, 7261 (2019)

40. **Epidemic spreading on time-varying multiplex networks**
Q.-H. Liu, X. Xiong, Q. Zhang, **N. Perra**
Phys. Rev. E 98, 062303, 2018

39. **Epidemic spreading in modular time-varying networks**
M. Nadini, K. Sun, E. Ubaldi, M. Starnini, A. Rizzo, **N. Perra**
Scientific Reports, 8, 2352, 2018

38. **Resilience management during large-scale epidemic outbreak**
E. Massaro, A. Ganin, **N. Perra**, I. Linkov, A. Vespignani
Scientific Reports, 8, 1859, 2018

37. **Combining Participatory Influenza Surveillance with Modeling and Forecasting**
A. Marathe, J.S., Brownstein, S. Chu, M.V. Marathe, A.T. Nguyen, D. Paolotti, **N. Perra**, D. Perrotta, M. Santillana, S. Swarup, M. Tizzoni, A. Vespignani, AKS Vullikanti, M.L. Wilson, Q. Zhang
JMIR Public Health Surveillance, 1, 3 (4):e83, 2017

36. **Epidemic Spreading on Activity-Driven Networks with Attractiveness**
I. Pozzana, K. Sun, **N. Perra**
Phys. Rev. E, 96, 042310, arxiv:1703.02482, 2017

35. **Random walks on activity driven networks with attractiveness**
L. Alessandretti, K. Sun, A. Baronchelli, **N. Perra**
Phys. Rev. E, 95, 052318, arxiv:1701.06449, 2017

34. **Forecasting seasonal influenza fusing digital indicators and a mechanistic disease model**
Q. Zhang, **N. Perra**, D. Perrotta, M. Tizzoni, D. Paolotti, A. Vespignani
WWW17, 2017, **Won the Best Paper Honourable Mention Award**
Featured in CNN Tech, NBC News

33. **Burstiness and tie reinforcement in time-varying social networks**
E. Ubaldi, A. Vezzani, M. Karsai, **N. Perra**, R. Burioni
Scientific Reports, 7, 46225, arxiv:1607.08910, 2017

32. **Asymptotic theory of time-varying social networks with heterogeneous activity and tie allocation**
E. Ubaldi, **N. Perra**, M. Karsai, A. Vezzani, R. Burioni, A. Vespignani
Scientific Reports, 6, 35724, 2016

31. **The spreading of infectious diseases in modern socio-technical systems**.
Comment on: "Pattern transitions in spatial epidemics. Mechanisms and emergent properties" by Gui-Quan Sun et al
N. Perra
To appear on Physics of Life Review, 2016

30. **Statistical physics of vaccination**
Z. Wang, C.T. Bauch, S. Bhattacharya, A. D'Onofrio, P. Manfredi, M. Perc, **N. Perra**, M. Salathe, D. Zhao
To appear in Physics Reports, arxiv:1608.09010, 2016

29. **Deciphering social collective phenomena through entropy transfer analysis**
J. Borge-Holthoefer, **N. Perra**, B. Gonĉalves, Sandra González-Bailón, A. Arenas, Y. Moreno, A. Vespignani
Science Advances, 2, 4, 2016
Featured in La Repubblica

28. **The scaling of human contacts in reaction-diffusion processes on heterogeneous metapopulations networks**
M. Tizzoni, K. Sun, D. Benusiglio, M. Karsai, **N. Perra**
Scientific Reports, 5, 15111, arxiv:1411.7310, 2015

27. **Contrasting effects of strong ties on SIR and SIS processes in temporal networks**
K. Sun, A. Baronchelli, **N. Perra**
Accepted in EPJ b, arxiv:1404.1006, 2015

26. **Committed activists and the reshaping of status-quo social consensus**
D. Mistry, Q. Zhang, **N. Perra**, A. Baronchelli
PRE, 92, 042805, arxiv:1505.02138, 2015

25. **Social data mining and seasonal influenza forecasts: the FluOutlook platform**
Q. Zhang, C. Gioannini, D. Paolotti, **N. Perra**, D. Perrotta, M. Quaggiotto, M. Tizzoni, A. Vespignani
Machine Learning and Knowledge Discovery in Databases, 2015

24. **VoroGraph: visualization tools for epidemic analysis**
C. Dunne, M. Muller, **N. Perra**, M. Martino
Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (pp. 255-258). ACM.

23. **Damage detection with shortest path network sampling**
F. Ciulla, **N. Perra**, A. Baronchelli, A. Vespignani,
Physical Review E, 89, 052816, 2014

22. **The role of endogenous and exogenous mechanisms in the formation of R&D networks**
M. V. Tomasello, **N. Perra**, C. Tessone, M. Karsai, F. Schweitzer
Scientific Reports, 4, 5679, 2014

21. **Controlling contagion processes in activity driven networks**
S. Liu, **N. Perra**, M. Karsai, A. Vespignani,
Physical Review Letters, 112, 118702, 2014

20. **Time varying networks and the weakness of strong ties**
M Karsai, **N. Perra**, A. Vespignani,
Scientific Reports, 4, 4001, 2014
Featured in: Wired and MIT Review Technology

19. **The infection tree of global epidemics**
M. F.C. Gomes, A. Pastore, N. Samay, **N. Perra**, A. Vespignani,
Network Science, 2, 1 2014

18. **The role of information diffusion in the evolution of social networks**
L. Weng, J. Ratkiewicz, **N. Perra**, B. Goncalves, C. Castillo, F. Bonchi, R. Schifanella, F. Menczer, A. Flammini,
*KDD'*13, 2013

17. **Quantifying the effect of temporal resolution in time-varying networks**
B. Ribeiro, **N. Perra**, A. Baronchelli,
Scientific Reports, 3, 3006, 2013

16. **Contagion dynamics in time-varying metapopulation networks**
S. Liu, A. Baronchelli, **N. Perra**.
Physical Review E, 87, 032805, 2013

15. **Characterizing scientific production and consumption of Physics**
Q. Zhang, **N. Perra**, B. Goncalves, F. Ciulla, A. Vespignani,
Scientific Reports, 3, 1640, 2013
Featured in: Wired, The Atlantic, The Miami Herald, and El Definido

14. **The twitter of babel: mapping world languages through microblogging platforms**
D. Mocanu, A. Baronchelli, **N. Perra**, B. Goncalves, Q. Zhang, A. Vespignani,
PLoS ONE, 8(4): e61981, 2013
Featured in: Science News

13. **Random walks and search in time-varying networks**
N. Perra, A. Baronchelli, D. Mocanu, B. Goncalves, R. Pastor-Satorras, A. Vespignani,
Physical Review Letters, 109, 238701, 2012

12. **Real time numerical forecast of global epidemic spreading: case study of 2009 A/H1N1pdm**
M. Tizzoni, P. Bajardi, C. Poletto, JJ Ramasco, D. Balcan, B. Goncalves, **N. Perra**, V. Colizza and A. Vespignani,
BMC Medicine, 10:165, 2012

11. **Beating the news using Social Media: the case study of American Idol**
F. Ciulla, D. Mocanu, A. Baronchelli, D. Mocanu, **N. Perra**, A. Vespignani,
EPJ Data Science, 1,8 2012
Featured in: The Boston Globe

10. **Activity driven modeling of dynamic networks**
N. Perra, B. Goncalves, R. Pastor-Satorras, A. Vespignani,
Scientific Reports, 2, 469, doi:10.1038/srep00469, 2012

9. **Modeling human mobility responses to the large-scale spreading of infectious diseases**
S. Meloni, **N. Perra**, A. Arenas, S. Gomez, Y. Moreno, A. Vespignani,
Scientific Reports 1, 62 doi:10.1038/srep00062, 2011

8. **Towards a characterization of behavior-disease models**
N. Perra, D. Balcan, B. Goncalves, A. Vespignani,
PLoS ONE 6(8): e23084. doi:10.1371/journal.pone.0023084, 2011

7. **Modeling user's activity of Twtter: validation of Dunbar's number**
B. Goncalves, **N. Perra**, A. Vespignani,
PLoS ONE 6(8): e22656. doi:10.1371/journal.pone.0022656, 2011
As of 2017 **among the top 1% papers for citations on PlosOne**
Featured in: CNN, The New Yorker, ABC News, Le Monde, Sud Ouest, TIME, MSNBC, Slashdot, La Capital, PC World, CorpComms, Psychology Today, and MIT Technology Review

6. **Modeling vaccination campaigns and the Fall/Winter 2009 activity of the new A(H1N1) influenza in the Northern Hemisphere**
P. Bajardi, C. Poletto, D. Balcan, H. Hu, B. Goncalves, JJ Ramasco, D. Paolotti, **N. Perra**,

M. Tizzoni, W V d Broeck, V. Colizza and A. Vespignani,
Emerging Health Threats Journal, 2009

5. **Seasonal transmission potential and activity peaks of the new influenza A(H1N1): a Monte Carlo likelihood analysis based on human mobility**
D. Balcan, H. Hu, B. Goncalves, P. Bajardi, C. Poletto, JJ Ramasco, D. Paolotti, **N. Perra**, M. Tizzoni, W V d Broeck, V. Colizza and A. Vespignani,
BMC Medicine,7:45, 2009
Featured in: The New York Times, Wired, Yahoo! News, The Lancet, and USA Today

4. **Modeling the critical care demand and antibiotics resources needed during the Fall 2009 wave of influenza A(H1N1) pandemic**
D. Balcan, V. Colizza, A. Singer, C. Chouaid, H. Hu, B. Goncalves, P. Bajardi, C. Poletto, J.J. Ramasco, **N. Perra**, M. Tizzoni, D. Paolotti, W. Van den Broeck, A.J. Valleron, A. Vespignani,
PLoS Currents: Influenza, 2009 Dec 7:RRN1133.

3. **Estimate of Novel Influenza H1N1 cases in Mexico at the early stage of the pandemic with a spatially structured epidemic model,**
V. Colizza, A. Vespignani, **N. Perra**, C. Poletto, B. Goncalves, H. Hu, D. Balcan, D. Paolotti, W. Van den Broeck, M.Tizzoni, P. Bajardi, J.J.Ramasco,
PLoS Currents Influenza, 2009 Nov 18:RRN1129.

2. **PageRank equation and localization in the WWW**
N. Perra, V. Zlatic, A. Chessa, C. Conti, D. Donato, and G. Caldarelli,
EPL, 88, 2009
Featured in: New Scientist, and Il Sole24ore

1. **Spectral centrality measures in complex networks**
N. Perra, S. Fortunato,
Physical Review E, 78, 036107, 2008

Dissertations

3. **Reaction-Diffusion processes on complex networks**
N. Perra,
PhD thesis, 2011

2. **Diffusion processes and centrality measures in Complex Networks**
N. Perra,
Master thesis, 2007

1. **Elastic diffusion: Born, Iconale and partial waves approximations**
N. Perra,
Bachelor thesis, 2005

Talks

59. **(Invited speaker)** Modelling the spreading of COVID-19
University of Birkbeck, 2021

58. **(Invited speaker)** Modelling Contagion Processes on Complex Networks
WeWork, 2020

57. **(Invited speaker)** The spreading of computer viruses on time-varying networks
Network Science Institute, Boston, USA, 2019

56. **(Invited speaker)** Modeling disease spreading at different spatio-temporal scales
CSS19 Satellite on: Extracting and analysing networks from spatio-temporal data, Singapore, 2019

55. **(Keynote speaker)** Forecasting epidemic spreading in the digital age
DataNative, London, UK, 2019

54. **(Invited speaker)** Modeling contagion processes on time-varying networks
NetSci19, Burlington, USA, 2019

53. **(Invited speaker)** Modeling opinion dynamics in the age of algorithmic personalization
Network Science Institute, Boston, USA, 2019

52. **(Invited speaker)** Modeling disease spreading in the digital era
Pasteur Institute, Paris, France, 2019

51. **(Invited speaker)** Modeling dynamical processes on complex networks
Exteter University, Exteter, UK, 2018

50. **(Invited speaker)** Epidemic spreading in modular time-varying networks
ISI Foundation, Turin, Italy, 2018

49. Epidemic spreading in modular time-varying networks
NetSci18, Paris, France, 2018

48. Data, science, and business in the digital era
University of Greenwich in collaboration with the South East London Chamber of Commerce, 2018

47. **(Invited speaker)** Networks and Time
Imperial College, UK, 2017

46. Epidemic Spreading on Activity-Driven Networks with Attractiveness
CCS'17, Cancun, Mexico, 2017

45. **(Invited speaker)** Modeling contagion processes
Science Crossroads, Turin, Italy, 2017

44. **(Invited speaker)** Networks and Time
ISI Foundation, Turin, Italy, 2017

43. **(Invited speaker)** Forecasting seasonal influenza fusing digital indicators and mechanistic disease models
Databeers Warwick, 2016

42. **(Invited speaker)** Networks and time
Queen Mary University, London, 2016

41. **(Invited speaker)** Modelling diffusion processes in time-varying networks
University of Bristol, Bristol, 2016

40. **(Invited speaker)** Network Science in the digital era
Interdisciplinary Institute of Data Science, UDSI, Lugano, 2016

39. Committed activists and the reshaping of status-quo social consensus
Complex Networks, Marseille, 2016

38. **(Invited plenary speaker)** Networks and time
Workshop on Dynamics on and of Networks Lyon, France, 2016

37. **(Invited speaker)** Dynamics on and of networks
USC-ISI, Marina del Rey, 2016

36. Modelling the dynamic of networks with heterogenous social capital allocation
Sunbelt16, USA, 2016

35. Committed activists and the reshaping of status-quo social consensus
Sunbelt16, USA, 2016

34. **(Invited plenary speaker)** Dynamics on and of networks
Complenet, Dijon, France, 2016

33. **(Invited speaker)** Modelling diffusion processes on time-varying networks
TU Berlin, 2016

32. **(Invited speaker)** Modelling diffusion processes on time-varying networks
UDSI, Lugano, 2015

31. **(Invited plenary speaker)** Modelling and forecasting of epidemic spreading
Evolving threats and vulnerability landscape, Rome, 2015

30. **(Invited talk)** Modeling and predicting contagion phenomena
At the crossroads: lessons and challenges in Computational Social Science,
Netsci15 Workshop Zaragoza, Spain, 2015

29. Attention on weak ties in social communication networks
Netsci15, Zaragoza Spain, 2015

28. **(Invited talk)** Epidemic Spreading
NetMob School, MIT Media Lab, Boston, USA, 2015

27. Epidemic Spreading in Non-Markovian Time-Varying Networks
CompleNet, New York, USA, 2015

26. **(Invited talk)** Modeling and predicting human dynamics in the age of big data
Greenwich University, London, UK, 2014

25. **(Invited talk)** Modeling dynamical processes on and of time-varying networks
Aix Marseille, Marseille, France, 2014

24. **(Invited talk)** Modeling processes on time-varying networks
New York University, NYC, USA, 2014

23. **(Invited talk)** Modeling socio-technical systems in the age of data-science
TUM, Munich, Germany, 2014

22. **(Invited talk)** Time-varying networks and the weakness of strong ties
ECCS'14, Lucca, Italy, 2014

21. **(Invited talk)** Modeling Dynamical Processes on Complex Networks
Boston University, Computer Science Dept., Boston, USA, 2014

20. Epidemic Spreading in Non-Markovian Time-Varying Networks
ECCS'14, Lucca, Italy, 2014

19. Modeling and forecasting of network-driven contagion processes
JSMB/SMB meeting, Osaka, Japan, 2014

18. **(Invited talk)** Twitterology
DataBeer, Turin, 2014

17. **(Invited talk)** Mapping and Ranking Scientific Production and Consumption
La Sapienza University Rome, Physics Dept., 2014

16. **(Invited talk)** Modeling dynamical processes in socio-technical systems
Notre Dame University, Physics Dept, USA, 2013

15. **(Invited talk) Interactive modeling of pandemics with GLEAMviz**
European Forum, Alpbach, Austria, 2013

14. **(Invited talk)** Mapping and ranking scientific production and consumption
Science of Success, Boston, USA 2013

13. Controlling Contagion Processes in Time-Varying Networks
Contagion13, ECCS'13 Satellite Meeting, Barcelona, 2013

12. Random walks and epidemic spreading processes in time-varying networks
TDN13, Temporal and Dynamic Networks: From Data to Models, Copenhagen, Denmark 2013

11. Random walks and search in time-varying networks
NetSci 13, Copenhagen, Denmark 2013

10. **(Invited talk)** Walking and searching in time-varying networks
SIAM minisymposia, Snowbird, Utah, USA 2013
9. Mapping the knowledge economy
APS March meeting, Baltimore, USA 2013
8. Random walks and search in time-varying networks
APS March meeting, Baltimore, USA 2013
7. **(Invited talk)** Overview of the Global Epidemic and Mobility Model (GLEAM)
Transatlantic Research on Policy Modeling Workshop, Washington DC, USA 2013
6. Epidemic processes on time-varying networks
ECCS12, Brussels, Belgium 2012
5. Activity driven modeling of dynamic networks
NetSci12, Evanston, USA 2012
4. Global epidemic and mobility model (GLEaM)
RISE 2012, Boston, USA 2012
3. Timescales and dynamical processes in activity driven networks
APS March Meeting 2012, Boston, USA 2012
2. Validation of Dunbar's number in Twitter conversations
NetSci 2011, Budapest, Hungary 2011
1. Localization of the PageRank in the WWW as disordered potential problem
NetSci 2009, Venezia, Italy 2009

Conferences and Workshops

I was (am) one of the organizer of:

19. Conference on Complex Systems, CCS 2021 (satellite co-chair)
18. Summer Institutes in Computational Social Science (SICSS), London chapter, 2021
17. Machine Learning in Network Science, NetSci20
16. Machine Learning in Network Science, NetSci19
15. Machine Learning in Network Science, NetSci18
14. Machine Learning in Network Science, NetSci17
13. Fens, Financial Economics and Network Science workshop
12. SocInfo'16, 4^{th} Workshop on Computational Approches to Social Modeling
11. Computational Social Science Initiative London
10. DataBeers London
9. ICWSM'15 workshop on Modeling and Mining Temporal Interactions
8. ECCS'14 Satellite Meeting on Temporal Networks in Human Dynamics
7. NetSci'14 Satellite Meeting on Temporal networks, human behavior, and social physics
6. WebSci'14 3^{rd} Workshop on Computational Approches to Social Modeling
5. ECCS'13 Satellite Meeting on Temporal Networks in Human Dynamics
4. ICCS 2013, 2^{nd} workshop on Computational Approches to Social Modeling
3. APS March meeting 2013, section on Physical Approaches to Social Modeling
2. APS March meeting 2012, section on Complex and Co-evolving Networks
1. ICCS 2012, workshop on Computational Approaches to Social Modeling

PC Activity

I held the position of program committee (PC) for:

53. 7th International Conference on Computational Social Science, IC2S2
52. WWW2021
51. Netsci20
50. CompleNet 2020
49. 6th International Conference on Computational Social Science, IC2S2
48. WWW2020
47. 5th International Conference on Computational Social Science
46. International Conference on Complex Systems 2019
45. Netsci19
44. WWW2019
43. NetSci18
42. WebSci18
41. International Conference on Complex Systems 2018
40. Socinfo 2018
39. ICWSM 2018
38. NetSciX 2018
37. WWW 2018
36. Workshop on Graph Techniques for Adversarial Activity Analytics), 2018
35. Data Science for Human Performance in Social Networks (ACUMEN) at ICDM 2017
34. WebSci17
33. Euro Symposium 2017
32. Complex Networks 2017
31. SocInfo17
30. CCS17, Conference on Complex Systems
29. NetSci 2017
28. NetSciX 2017
27. CCS2016 Satellite "Digital Epidemiology and Surveillance"
26. WWW 2017
25. Complex Networks: from theory to interdisciplinary applications 2016
24. International Conference on Computational Social Science 2016
23. SocInfo 16
22. CCS2016 Conference on Complex Systems
21. WebSci16
20. Complexis 2016, 1^{st} International conference on complex information systems
19. Complex networks: from theory to interdisciplinary applications, satellite of Statphys26
18. CCS'15 Satellite meeting on Modeling of Disease Contagion Processes
17. International Conference on Computational Social Science 2015
16. NetSciCom 2015
15. 3rd Digital Disease Detection conference (DDD2015)
14. NetSci'15

13. Crimenet at SocInfo 2014
12. ECCS'14 Satellite: Computational Social Science: Contagion, Collective Behavior, and Networks
11. International Workshop on Collaborative Big-Data (C-Big2014)
10. ECCS'14 Satellite: Quantifying Success 2.0
9. ECCS'14 Satellite meeting on Modeling of Disease Contagion Processes
8. SASO 2014, 8^{th} IEEE international Conference on Self-Adaptive and Self-Organizing Systems
7. WebSci2014
6. COOL 2014, "Connecting Online and Offline Life", workshop at the WWW14 conference
5. "Quantifying success", satellite workshop at ECCS'13
4. SASO 2013, 7^{th} IEEE international Conference on Self-Adaptive and Self-Organizing Systems
3. COVEnANT 2013, "Collective Behaviors and Networks", satellite workshop at ECCS'13
2. SASO 2012, 6^{th} IEEE International Conference on Self-Adaptive and Self-Organizing Systems
1. WWW12

Referee Activity

I have been refereeing Grant proposals for:

7. UK Research and Innovation, UK
6. National Science Foundation, USA
5. Austrian Science Fund
4. Swiss National Science Foundation
3. Netherlands Organisation for Scientific Research
2. National Science Center, Poland
1. AXA Research Fund

I have been refereeing paper for:
Nature, PNAS, Lancet Digital Health, Nature Communications, Phys. Rev. Lett., Phys. Rev. X, Science Advances, PLOS Computational Biology, Scientific Reports, Scientific Data, SIAM Review, Phys. Rev. E, PLoS ONE, PeerJ, Social Networks, Journal of Complex Networks, Applied Network Science, The European Physical Journal, Mathematical Biosciences, JSTAT, Computer Networks, BioScience, Applied Physics Letters, Physica A, Computational Economics, ACM Transactions on Internet Technologies, Journal of the Franklin Institute, IEEE Transactions on Neural Networks and Learning Systems, IEEE Transactions on Control of Network Systems, Royal Society Open Science, Theoretical Biology and Medical Modelling.

In the Press

30. The limits of friendship, **The New Yorker**
29. Qué hacen los países líderes en ciencias?[1], **El Definido** (in Spanish)
28. The World's Leading Science Cities, **The Atlantic**
27. The cities of science, **Wired**
26. Strong social ties impede spread of rumours, **Wired UK**
25. How Strong Social Ties Hinder the Spread of Rumors, **MIT technological review**
24. News in Brief: Twitter maps New York City, language by language, **ScienceNews**
23. (Italian) Su Twitter la sinistra pesa di più. Mps, lavoro e tasse le parole guida, **La Repubblica**
22. Tweets helped team predict Idol winner, **Boston Globe**

[1] What are the leading countries in science?

21. Social networking 'utopia' isn't coming, **CNN**
20. Dunbar's number rules the Twitterverse, **ABC**
19. Sur les rseaux sociaux, difficile d'avoir plus de 200 amis, **Le Monde**
18. La taille du cerveau limite le nombre d'amis sur les rseaux sociaux, **Sud Ouest**
17. It's Science: You Can Only Really Follow 150 People on Twitter, **Time Magazine, Techland**
16. Human brain limits Twitter friends, **MSNBC**
15. Las redes sociales y la amistad, **La Capital**
14. Online relationships mirror real life, **CorpComms**
13. Even With Social Networking, Do Our Brains Limit Our Number Of Friends?, **Psychology Today**
12. Human Brain Places Limit On Twitter Friends, **Slashdot**
11. Study: Friends Hard to Keep Up with on Twitter, Facebook, **PCWorld**
10. El cerebro humano solo puede reconocer hasta 150 amigos, **El Comercio**
9. Human Brain Limits Twitter Friends To 150, **TechnologyReview.com**
8. Predicting flu with the aid of (George) Washington, **NewYork Times**
7. Apocalypse Not: Behind the Swine Flu Hysteria, **Wired**
6. Worst Case Scenario for flu Estimated, **Yahoo! News**
5. Preparation for a pandemic: influenza A H1N1, **The Lancet**
4. Fate of this outbreak may be determined this week, **USA Today**
3. Pandemic news special includes work by IUs GLEaM team, **IU News Room**
2. Il lato Fisico del Web[2], **sole24ore issue of 03/25/2010**
1. Search Engines could be lubricated by quantum maths, **NewScientist, Magazine issue 2668**

Informatics Skills

- Operative Systems: Windows (advanced), Linux (advanced) e OSX (advanced)
- Programming languages: C/C++ (advanced), Python (advanced) e Fortran77-90-95 (advanced).
- Scientific Software: Mathematica (advanced), Matlab (Good) e R (Good)

Linguistic Competences

- Italian (native language)
- English (advanced)

[2]The Physics side of the Web