



Vittoria Colizza

SENIOR RESEARCH SCIENTIST
Inserm & UPMC, Paris, France

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dob: 25/05/1978
nationality: italian

current position

Senior Research Scientist
Inserm & Universite Pierre et Marie Curie, Faculty of Medicine
UMR-S 1136
Institut Pierre Louis d'Epidemiologie et de Sante Publique (IPLESP)

Site Hopital St Antoine
27 rue Chaligny
75012 Paris
France

Joint appointment at ISI Foundation
Computational Epidemiology and Public Health
Turin, Italy
2011-present

work experience

Senior Research Scientist (CR1)
Inserm & Universite Pierre et Marie Curie, Faculty of Medicine
UMR-S 1136
Institut Pierre Louis d'Epidemiologie et de Sante Publique (IPLESP)
Paris, France
2011-present

Joint appointment at ISI Foundation
Computational Epidemiology and Public Health
Turin, Italy
2011-present

Senior Research Scientist
ISI Foundation
Computational Epidemiology and Public Health
Turin, Italy
2006-2010

Visiting Assistant Professor
Indiana University
School of Informatics
Bloomington, IN, USA
2006-2007

Post-doctoral Research Associate
Indiana University
School of Informatics
Bloomington, IN, USA
2004-2006

Doctoral Fellow
International School for Advanced Studies (SISSA/ISAS)
Sector of Statistical and Biological Physics
Trieste, Italy
2001-2004

education

PhD in Physics *cum laude*
International School for Advanced Studies (SISSA/ISAS)
Sector of Statistical and Biological Physics
Trieste, Italy
October 18, 2004

MS in Physics
International School for Advanced Studies (SISSA/ISAS)
Sector of Condensed Matter
Trieste, Italy
October 2002

Laurea in Physics *cum laude*
University of Rome Sapienza
Rome, Italy
September 2001

grants & fellowships

EC ANIHWA Collaborative project
contract n.13-ANWA-0007-03

LIVEpi – Prediction and control of vector- and movement-borne livestock epidemics
<https://www.anihwa-submission-era.net/LIVEpi>

role: team leader

2013-2016

ANR (French National Agency for Research) Collaborative project

contract n.ANR-12-MONU-0018

HARMSFLU – Harmonizing multiple scales for data-driven computational approaches to the modeling of influenza spread.

<http://www.harmsflu.org>

role: coordinator

2012-2016

EC FP7 Health, Collaborative project

contract n.278433

PREDEMICS – Preparedness, prediction and prevention of emerging zoonotic viruses with pandemic potential using multidisciplinary approaches

<http://predemics.biomedtrain.eu/>

role: team leader

2011-2016

Italian Ministry of Health, Research Projects

contract n.MSRCTE0411

Design and development of data-driven modeling approaches for the study of swine infectious diseases through animal movements.

role: team leader

2012-2014

Grant Program Galileo

Italian Ministry of Research, French Ministries of Research and of Foreign Affairs

contract n.28144NH

Seasonality and stability of cattle trade movements for the prevention and control of livestock infectious diseases.

role: PI

2013

European Research Council Starting Independent Researcher Grant

contract n.ERC-2007-Stg204863

EpiFor - Complexity and predictability of epidemics: toward a computational infrastructure for epidemic forecasts

<http://www.epifor.eu>

role: PI

2008-2013

EC FP7 ICT, Large-scale Integrating Project

contract n.231807

EPIWORK – Developing the framework for an epidemic forecast infrastructure

<http://www.epiwork.eu/>

role: member of the ISI team that coordinates the project

2009-2013

EC FP7 ICT, STREP

contract n. 233847

DYNANETS - Computing real-world phenomena with dynamically changing complex networks

<http://dyanets.org/>

role: WP leader

2009-2012

Italian Ministry of Health, Research Projects

contract n. IZS AM 01/08 RC

Epidemiologic approaches for risks assessment and management of infectious diseases in bovine populations.

role: team leader

2009-2012

Travel Grant to the European Conference of Complex Systems, ECCS07, Dresden, Germany, October 1-5, 2007.

Doctoral Fellowship, International School for Advanced Studies (SISSA/ISAS), Trieste, Italy, 2001-2004

awards & honors

Young Advisor to the Vice President of the European Commission Mrs. Neelie Kroes for the new Digital Agenda for Europe, 2010-2020 (2011 – present).

Young Scientist Award 2013 for Social and Econophysics. [*The Young Scientist Award (YSA) seeks to promote the work of young researches and honors exceptional original contributions that use methods from physics to gain a better understanding of socio-economic problems. The prize is endowed with 5000 Euro. The YSA is intended for young scientists not older than 40 years*]

Invited participant, Science Foo Camp by Google, O'Reilly, Nature, @Google, Mountain View, CA, USA, June 21-23, 2013

Prix Louis-Daniel Beauperthuy 2012 (Human biology & Medical sciences) of the French Academy of Sciences. [*Biannual prize to be awarded to a scientist (French or foreigner) to reward epidemiological studies that have contributed to improve the fate of humanity, as the ones conducted by Louis-Daniel Beauperthuy. The prize is endowed with 3000 Euro*]

Recipient of an ERC Starting Independent Researcher Grant
contract n.ERC-2007-Stg204863

EpiFor - Complexity and predictability of epidemics: toward a computational infrastructure for epidemic forecasts

<http://www.epifor.eu>

2008-2013

Advisor to the Pandemic Preparedness Working Group, French Ministry of Health (2012).

Young Scientist selected by the French Academy of Sciences for *policy-science jumelage*, 2011. [Partnership between Members of the French Parliament, Members of the French Academy of Sciences and Young Scientists to foster contacts, mutual understanding of the role of science in policy making, and to disseminate scientific activities and results]

Young Talent Award, Italian Ministry of Youth, 2010.

Invited tutorial presenter, National Academies Keck Futures Initiative (NAKFI) on complexity, November 13-15, 2008, Irvine, California, USA.

Travel Grant to the European Conference of Complex Systems, ECCS07, Dresden, Germany, October 1-5, 2007.

Doctoral Fellowship, International School for Advanced Studies (SISSA/ISAS), Trieste, Italy, 2001-2004

INFM Degree Award for the Best 2001 Theoretical Thesis (2002).

boards & academic services

Associate Editor of *Theoretical Biology and Medical Modeling*, BioMed Central (2013-present)

Reviewers Board of *PLOS Currents Outbreak*, Public Library of Science (2013-present)

Council Member of the Complex Systems Society (2012-present)

Steering Committee of Complex Systems Society Conference (2010-present)

Editorial Board of *PLoS ONE*, Public Library of Science (2011-present)

Editorial Board of the *Journal of Computational Sciences*, Elsevier (2010-present)

Reviewer for the following peer-reviewed journals: Nature, Science, Proceedings of the National Academy of Science USA, Nature Communication, Nature Physics, Scientific Reports, BMC Medicine, BMC Infectious Diseases, BMC Public Health, Journal of Theoretical Biology, PLOS One, PLOS Computational Biology, Proceedings of the Royal Society B, Proceedings of the Royal Society Interface, Journal of Applied Mathematics, Ecology Letters, European Physics Journal B, Bulletin of Mathematical Biology, Chaos, Journal of Statistical Mechanics, Physical Review Letters, Physical Review E, Physical Review X.

Reviewer for the following funding programs: EC FET Open, EC FET Young Explorer, Wellcome Trust, CDC.

Advisor for the following funding programs: EC FET Open, EC FET Young Explorer, AXA Research Fund

public health

Member of the Modeling Working Group for the response to the Chikungunya epidemic in France

services

and French Overseas Territories (2014).

Member of the Modeling Working Group for the response to the MERS-CoV epidemic in France (2013).

Advisor to the InVS (French Health Surveillance Institute) for the setup of a pandemic preparedness exercise (2013).

Advisor to the InVS (French Health Surveillance Institute) for the setup and update of the surveillance protocols for the MERS-CoV epidemic and the H7N9 influenza outbreaks (2013).

Advisor to the Pandemic Preparedness Working Group, French Ministry of Health (2012).

Invited presenter at the ECDC (European Center for Disease Control and Prevention) Infectious Disease Modeling Meeting for the discussion of future infectious disease modeling networking within the European Commission; ECDC, Stockholm, Sweden, November 14-15, 2011.

Invited presenter at the ECDC (European Center for Disease Control and Prevention) H1N1 Modeling Meeting for the discussion on H1N1 modeling works and the collaboration between modelers, public health and decision makers; Stockholm, Sweden, Oct 19-20, 2010.

meetings organization & related activities

Co-Organizer of SAMMBA seminar series (Statistical and Mathematical Modeling in Biological Applications), Pasteur Institute, Paris, France; annually, since 2011.

Chair of Satellite Symposia of the “*International School and Conference on Network Science – NetSci2015*”, Zaragoza, Spain, June 1-5, 2015.

Organizer of the Lake Como School of Advanced Studies “*Complex networks: theory, methods and applications*”, Como, Italy, May 18-22, 2015.

Organizer of the Satellite Meeting “*Contagion '14: Modeling of disease contagious processes*” @ECCS'14, Lucca, Italy, September 25, 2014.

Organizer of the Satellite Meeting “*Contagion '13: Modeling of disease contagious processes*” @ECCS'13, Barcelona, Spain, September 18, 2013.

Organizer of the Satellite Meeting “*Temporal and dynamic networks: from data to models*” @NetSci2013, Copenhagen, Denmark, June 3-4, 2013.

Organizer of EPIWORK International Workshop “*Digital Epidemiology*”, Turin, Italy, May 30-31, 2013.

Organizer of the Satellite Meeting “*Data-driven modeling of contagion processes*” @ECCS’12, Brussels, Belgium, September 5, 2012.

Organizer and Member of Scientific Committee of EE² EPIWORK-EpiFor 2nd International Workshop “*Facing the Challenge of Infectious Diseases – Integrating mathematical modeling, computational thinking and ICT applications*”, Courmayer (Aosta), Italy, January 18-20, 2012.

Organizer of ESOF2010 (EuroScience OpenForum) Scientific Session “*The role of human mobility in shaping epidemics: from face-to-face interactions to air travel*”, Turin, Italy, July 2-7, 2010. Selected among the *TOP 20 Scientific Sessions*.

Organizer and Member of Scientific Committee of the International Workshop “*Frontiers in the Computational Modeling of Disease Spreading*” @ ICCS2010, Amsterdam, The Netherlands, May 31-June 2, 2010.

Organizer and Member of Scientific Committee of the “*International Workshop on Network Science – NetSci09*”, Istituto Veneto di Scienze Lettere ed Arti, Venice, Italy, June 29-July 03, 2009.

Organizer and Member of Scientific Committee of the International Workshop “*Facing the Challenge of Infectious Diseases – Integrating mathematical modeling, computational thinking and ICT applications*”, ISI Foundation, Turin, Italy October 13-17, 2008.

Member of Scientific/Program Committee of: “*European Conference of Complex Systems, ECCS2013*”, Barcelona, September 16-20, 2013; “*International Workshop on Public Health in the Digital Age*”, Rio de Janeiro, Brazil, May 14, 2013; “*European Conference of Complex Systems, ECCS2011*”, Vienna, September 12-16, 2011; “*Workshop on the Analysis of Mobile Phone Networks*” @ NetSci2010, MIT, Cambridge, MA, USA, May 11, 2010; *eHealth 2010*, Casablanca, Morocco, December 13-15, 2010; *IEEE Symposium on “Engineered & Natural Complex Systems: Modeling, Simulation and Analysis” (ENCS)*, Toronto, Ontario, Canada, Sept 27-29, 2009; International Workshop and Conference on Network Science *NetSci-06*, Bloomington, IN, USA, May 16-25, 2006; EXYSTENCE Thematic Institute. “*Interfacing Networks: from behavioral networks to info-structures and infrastructures*”, Institute for Scientific Interchange (ISI) Foundation, Turin, Italy, January 21 – February 9, 2006; and others.

teaching experience

GUEST LECTURES

“*Mixing: from random to realistic networks*”

Institute Pasteur, Epidemiology and Public Health Department, Pasteur-CNAM School of Public Health, Paris, France.

Course ‘Modeling of infectious diseases’, Spring 2013, Spring 2012

“*Battling infectious diseases in a complex world*”

ISI Foundation, Turin, France.

Scuola Alta Formazione Lagrange Project on Complex Systems, Fall 2012

“Modern networks and disease transmission“

Ecole des hautes etudes en santé publique (EHESP), Paris, France.

Master of Public Health, II year, Fall 2011

“Modeling of Infectious Diseases: why, when, how?“

Institute Pasteur, Epidemiology and Public Health Department, Pasteur-CNAM School of Public Health, Paris, France.

Course ‘Modeling of infectious diseases’, Spring 2011

“Advanced Methods in Statistics and Epidemiology “

University of Turin, Dept. of Biomedical Sciences and Human Oncology, Turin, Italy

Module of Master of Epidemiology, Spring 2010

“Theoretical and Experimental Medicine“

Avogadro University, Faculty of Medicine, Novara, Italy

Undergraduate course, Fall 2009

“Complex Systems in Post-genomic Biology“

University of Turin, Biology Department, Turin, Italy

PhD course, Spring 2007, Spring 2008

“Informatics of Complexity“

Indiana University, School of Informatics, Bloomington, IN, USA

PhD course, Fall 2006

“Introduction to Complex Systems“

Indiana University, School of Informatics, Bloomington, IN, USA

MS/PhD course, Fall 2004, Fall 2005

SCHOOLS

“Complex networks: theory, methods and applications“

Lake Como School of Advanced Studies

Como, Italy

School Instructor, May 18-22, 2015

“Epidemics and networks “

Complex Networks Thematic School

Les Houches Theoretical Physics School, Les Houches, France

School instructor, April 7-18, 2014

“Dynamics of networks and epidemic spreading “

Summer School on Mathematical Modeling in Population Biology

International Center for Theoretical Physics ICTP-Brazil, Sao Paulo, Brazil

School instructor, January 23-28, 2012

“Dynamics of Networks and Epidemic Spreading“

International Summer School on Complex Systems: Structure and Dynamics
Institute of Theoretical and Applied Physics, Turunc-Marmaris, Turkey
School instructor, August 23-27, 2010

CLASSES

“Physics applied to Complex Social Systems“
University of Turin, Department of Physics, Turin, Italy
Undergrad/MS course, new course design, Spring 2009, Spring 2010

“Introduction to Computational Epidemiology”
Indiana University, School of Informatics, Bloomington, IN, USA
PhD course, new course design, Spring 2007

supervision

post-doctoral associate Dr. Chiara Poletto
ISI Foundation, Turin, Italy & INSERM, Paris, France, 2009-present

post-doctoral associate Dr. Giancarlo De Luca
INSERM, Paris, France, 2013-present

post-doctoral associate Dr. Livio Bioglio
INSERM, Paris, France, 2013-present

PhD supervisor of Eugenio Valdano
PhD in Public Health at the University Pierre et Marie Curie, Paris, France, 2012-present

post-doctoral associate Dr. Pietro Coletti
ISI Foundation, 2014-present

PhD supervisor of Davide Colombi
PhD in Physics, ISI Foundation, Turin, Italy, 2013-present

former post-docs: Dr. Raphaelle Metras (ISI Foundation, Turin, Italy, 2013-2014), Dr. Andreia Hisi (Inserm, Paris, France, 2013), Dr. Paolo Bajardi (ISI Foundation, Turin, Italy, 2011-2012), Dr. Andrea Apolloni (ISI Foundation, 2011-2012), Dr. Selene Bianco (ISI Foundation, 2011-2012), Dr. Corrado Giovannini (ISI Foundation, 2009-2011), Dr. Marco Quaggiotto (ISI Foundation, 2009-2011).

former Ms/PhD students: Valentina Grosso (Ms supervision, Inserm, Paris, France, 2014-2015), Pietro Cantarelli (Ms supervision, Inserm, Paris, France, 2012-2013), Paolo Bajardi (PhD supervision, ISI Foundation, 2008-2011), Michele Tizzoni (PhD supervision, ISI Foundation, 2009-2012), Hao Hu (PhD supervision, Indiana University, USA, 2006-2007).

publications

EDITORIAL MATERIAL

10. M Quaggiotto, QOO company, V Colizza
Optimizing surveillance for livestock disease spreading through animal movements
video available at: <http://vimeo.com/68881358> (2013)
9. GLEAMviz team
GLEAMviz – The Global Epidemic and Mobility Model
video available at: <http://vimeo.com/45692502> (2012)
8. GLEAMviz team
GLEAMviz 2.6 teaser #2 – propagation of H1N1pdm
video available at: <http://vimeo.com/17441056> (2010)
7. GLEAMviz team
GLEAMviz 2.6 teaser #1 – propagation of H1N1pdm
video available at: <http://vimeo.com/17840291> (2010)
6. GLEAMviz team
GLEAMviz Simulator Tutorial
video available at: <http://vimeo.com/12941123> (2010)
5. GLEAMviz team
GLEAMviz Simulator Overview
video available at: <http://vimeo.com/11267513> (2010)
7. GLEAMviz team
GLEAM overview
video available at: <http://vimeo.com/10143277> (2010)
4. V Colizza, A Vespignani
The Flu Fighters.
Physics World, February 2010
[\[cover\]](#)
3. V Colizza
Health officials ponder how to fight stowaway microbes.
The National (UAE national newspaper), January 3, 2010.
2. V Colizza
People interact. They travel. And diseases might travel with them.
Airneth, Worldwide scientific network for aviation research and policy, September 2009.
1. G Caldarelli, V Colizza
Tutte le trame del mondo
Sapere, February 2008.

BOOK CHAPTERS

2. A Barrat, V Colizza, A Vespignani
Epidemic spreading and complex networks
in *UNESCO-EOLSS Encyclopedia of Life Support System* (2010)
1. H Hu, S Meyers, V Colizza, A Vespignani
Modeling WiFi Malware Epidemics

in *Crimeware*, M. Jakobsson & Z. Ramzan editors (Symantec Press, Addison Wesley, 2008)

PEER-REVIEWED PUBLICATIONS

Digital surveillance

49. P Cantarelli, M Debin, C Turbelin, C Poletto, T Blanchon, A Falchi, T Hanslik, I Bonmarin, D Levy-Bruhl, A Micheletti, D Paolotti, A Vespignani, J Edmunds, KTD Eames, R Smallenburg, C Koppeschaar, AO Franco, V Faustino, A Carnahan, M Rehn, V Colizza
The representativeness of a European multi-center network for influenza-like-illness participatory surveillance
BMC Public Health 14, 984 (2014)
48. P Bajardi, A Vespignani, S Funk, KTD Eames, J Edmunds, C Turbelin, M Debin, V Colizza, R Smallenburg, C Koppeschaar, AO Franco, V Faustino, A Carnahan, M Rehn, D Paolotti
Determinants of follow-up participation in the Internet-based European Influenza Surveillance platform InfluenzaneT
Journal of Medical Internet Research 16(3), e78 (2014)
47. M Debin, V Colizza, T Blanchon, T Hanslik, C Turbelin, A Falchi
Effectiveness of 2012-2013 influenza vaccine against influenza-like-illness in general population: estimation in a French web-based cohort
Human Vaccine & Immunotherapeutics 10(3), 1(2014)
46. D Paolotti, A Carnahan, V Colizza, K Eames, J Edmunds, G Gomes, C Koppeschaar, M Rehn, R Smallenburg, C Turbelin, S Van Noort, A Vespignani
Web-based participatory surveillance of infectious diseases: the InfluenzaneT participatory surveillance experience
Clinical Microbiology and Infection 20:17-21 (2014)
45. M Debin, C Turbelin, T Blanchon, I Bonmarin, A Falchi, T Hanslik, D Levy-Bruhl, C Poletto, V Colizza
Evaluating the feasibility and participants' representativeness of an online nationwide surveillance system for influenza in France
PLOS ONE 8(9):e73675 (2013)

Livestock movements and diseases

44. P Bajardi, A Barrat, L Savini, V Colizza
Optimizing surveillance for livestock disease spreading through animal movements
Journal of the Royal Society Interface 9, 2814-2825 (2012).
43. P Bajardi, A Barrat, F Natale, L Savini, V Colizza
Dynamical patterns of cattle trade movements
PLoS ONE 6(5), e19869 (2011)

Software

42. W Van den Broeck, C Gioannini, B Goncalves, M Quaggiotto, V Colizza, A. Vespignani
The GLEaMviz computational tool, a publicly available software to explore realistic epidemic spreading scenarios at the global scale
BMC Infectious Diseases 11, 37 (2011)
[“highly accessed” tag] [“F1000 prime” recommended]

Data-driven computational models for realistic large-scale epidemics

41. C Poletto, MF Gomes, A Pastore y Piontti, L Rossi, L Bioglio, DL Chao, IM Longini, ME Halloran, V Colizza, A Vespignani
Assessing the impact of travel restrictions on international spread of the 2014 West African Ebola epidemic
Eurosurveillance 19(42): pii20936 (2014)
40. S Cauchemez, M Ledrans, C Poletto, P Quenel, H de Valk, V Colizza, P-Y Boelle
Local and regional spread of Chikungunya fever in the Americas
Eurosurveillance 19(28): pii20854 (2014)
39. C Poletto, C Pelat, D Levy-Bruhl, Y Yazdanpanah, P-Y Boelle, V Colizza
Assessment of the MERS-CoV epidemic situation in the Middle East region
Eurosurveillance 19(23): pii29824 (2014)
38. W. Van den Broeck, M Tizzoni, P Bajardi, C Poletto, JJ Ramasco, D Balcan, B Goncalves, N Perra, V Colizza, A Vespignani
Real-time numerical forecast of global epidemic spreading: case study of 2009 A/H1N1 pdm
BMC Medicine 10, 165 (2012)
37. A.C Singer, V Colizza, H Schmitt, J Andrews, D Balcan, W.E Huang, V.D.J Keller, A Vespignani, R Williams
Assessing the ecotoxicological hazards of a pandemic influenza medical response
Environmental Health Perspectives 119, 1084-1090 (2011)
36. P Bajardi, C Poletto, JJ Ramasco, M Tizzoni, V Colizza, A Vespignani
Human mobility networks, travel restrictions, and the global spread of 2009 H1N1 pandemic
PLoS ONE 6(1), e16591 (2011)
35. D Balcan, B Goncalves, H Hu, V Colizza, JJ Ramasco, A Vespignani
Modeling the spatial spread of infectious diseases: the GLobal Epidemic and Mobility computational model
Journal of Computational Science 1, 132 (2010)
34. M Ajelli, B Goncalves, D Balcan, V Colizza, H Hu, JJ Ramasco, S Merler, A Vespignani
Comparing large-scale computational approaches to epidemic modeling: Agent-based versus structured metapopulation models
BMC Infectious Diseases 10, 190 (2010)
[\[“highly accessed” tag\]](#)
33. D Balcan, V Colizza, B Goncalves, H Hu, JJ Ramasco, A Vespignani
Multiscale mobility networks and the spatial spreading of infectious diseases
Proceedings of the National Academy of Sciences USA 106, 21484-21489 (2009)
[\[cover\]](#)
32. D Balcan, V Colizza, A.C Singer, C Chouaid, H Hu, B Goncalves, P Bajardi, C Poletto, JJ Ramasco, N Perra, M Tizzoni, D Paolotti, W Van den Broeck, A J Valleron, A Vespignani
Modeling the critical care demand and antibiotics resources needed during the Fall 2009 wave of influenza A(H1N1) pandemic

PLoS Currents: Influenza. Dic 4:RRN1133 (2009) [expert-moderated]

31. P Bajardi, C Poletto, D Balcan, H Hu, B Goncalves, J.J Ramasco, D Paolotti, N Perra, M Tizzoni, W Van den Broeck, V Colizza, A Vespignani
Modeling vaccination campaigns and the Fall/Winter 2009 activity of the new A(H1N1) influenza in the Northern Hemisphere
Emerging Health Threats Journal 2:e11 (2009)
30. 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
Estimate of Novel Influenza A/H1N1 cases in Mexico at the early stage of the pandemic with a spatially structured epidemic model
PLoS Currents: Influenza. Nov 11:RRN1129 (2009) [expert-moderated]
29. D Balcan, H Hu, B Goncalves, P Bajardi, C Poletto, J.J Ramasco, D Paolotti, N Perra, M Tizzoni, W Van den Broeck, V Colizza, A Vespignani
Seasonal transmission potential and activity peaks of the new influenza A(H1N1): a Monte Carlo likelihood analysis based on human mobility
BMC Medicine 7, 45 (2009)
[“highly accessed” tag] [“F1000 prime” recommended]
28. H.Hu, S Myers, V Colizza, A Vespignani
WiFi networks and malware epidemiology
Proceedings of the National Academy of Sciences USA 106, 1318 (2009)
27. V Colizza, A Barrat, M Barthelemy, A Vespignani.
Predictability and epidemic pathways in global outbreaks of infectious diseases: the SARS case study
BMC Medicine 5, 34 (2007)
26. V Colizza, A Barrat, M Barthélemy, A.-J Valleron, A Vespignani.
Modeling the worldwide spread of pandemic influenza: baseline case and containment interventions
PLoS Medicine 4(1): e13 (2007)
25. V Colizza, A Barrat, M Barthélemy, A Vespignani
Epidemic predictability in meta-population models with heterogeneous couplings: the impact of disease parameter values
International Journal of Bifurcation and Chaos 17, 2491-2500 (2007)
24. V Colizza, A Barrat, M Barthélemy, A Vespignani
The modeling of global epidemics: stochastic dynamics and predictability
Bulletin of Mathematical Biology 68, 1892-1921 (2006)
23. V Colizza, A Barrat, M Barthélemy, A Vespignani.
The role of the airline transportation network in the prediction and predictability of global epidemics
Proceedings of the National Academy of Sciences USA 103, 2015-2020 (2006)
22. A Apolloni, C Poletto, J.J Ramasco, P Jensen, V Colizza
Metapopulation epidemic models with heterogeneous mixing and travel behavior.
Theoretical Biology and Medical Modeling 11, 3 (2014)

Theoretical foundations of mechanistic epidemic models in complex metapopulation

21. C Poletto, M Tizzoni, V Colizza
Human mobility and time spent at destination: Impact on spatial epidemic spreading
Journal of Theoretical Biology 338, 41 (2013)
20. C Poletto, A Apolloni, V Colizza, Y Moreno, A Vespignani
Host mobility drives pathogen competition in spatially structured populations
PLOS Computational Biology 9(8): e1003169 (2013)
19. A Apolloni, C Poletto, V Colizza
Age-specific contacts and travel patterns in the spatial spread of 2009 H1N1 influenza pandemic
BMC Infectious Diseases 13, 176 (2013)
[“highly accessed” tag]
18. C Poletto, M Tizzoni, V Colizza
Heterogeneous length of stay of hosts’ movements and spatial epidemic spread
Nature Scientific Reports 2, 476 (2012)
17. V Colizza, A Vespignani
Epidemic modeling in metapopulation systems with heterogeneous coupling pattern: theory and simulations
Journal of Theoretical Biology 251, 450-467 (2008)
16. V Colizza, A Vespignani.
Invasion threshold in heterogeneous metapopulation networks
Physical Review Letters 99, 148701 (2007)
15. V Colizza, R Pastor-Satorras, A Vespignani
Reaction-diffusion processes and metapopulation models in heterogeneous networks.
Nature Physics 3, 276-282 (2007)
14. V Colizza, M Barthélemy, A Barrat, A Vespignani
Epidemic modeling in complex realities.
CR Biologies 330, 364-374 (2007)
13. M Tizzoni, P Bajardi, A Decuyper, G Kon Kam King, CM Schneider, V Blondel, Z Smoreda, M Gonzalez, V Colizza
On the role of human mobility proxies for modeling epidemics
PLOS Computational Biology, 10(7): e1003716 (2014)
12. A Barrat, C Cattuto, V Colizza, F Gesualdo, L Isella, E Pandolfi, J-F Pinton, L Rava, C Rizzo, M Romano, J Stehle, AE Tozzi, W Van den Broeck
Empirical temporal networks of face-to-face human interactions
European Physical Journal Special Topics 222, 1295 (2013)
11. J Stehle, N Voirin, A Barrat, C Cattuto, V Colizza, L Isella, C Regis, J.-F Pinton, N Khanafer, W Van den Broeck, P Vanhems.
Simulation of an SIR infectious disease model on the dynamic contact network of conference attendees
BMC Medicine 9, 87 (2011)
[“highly accessed” tag]

Theoretical foundations of complex networks

10. L Isella, M Romano, A Barrat, C Cattuto, V Colizza, W Van den Broeck, F Gesualdo, E Pandolfi, L Rava, C Rizzo, A.E Tozzi
Close encounters in a pediatric ward: measuring face-to-face proximity and mixing patterns with wearable sensors
PLoS ONE 6(2), e17144 (2011)
9. C Cattuto, W Van den Broeck, A Barrat, V Colizza, J.-F Pinton, A Vespignani
Dynamics of person-to-person interactions from distributed RFID sensor networks
PLoS ONE 5(7), e11596 (2010)
8. T Opsahl, V Colizza, P Panzarasa, J.J Ramasco
Prominence and control: The weighted rich-club effect
Physical Review Letters 101, 168702 (2008)
7. Z Wu, L.A Braunstein, V Colizza, R Cohen, S Havlin, H.E Stanley
Optimal paths in complex networks with correlated weights: the World-Wide Airport Network.
Physical Review E 74, 056104 (2006)
6. V Colizza, A Flammini, M.A Serrano, A Vespignani
Detecting rich-club ordering in complex networks.
Nature Physics 2, 110-115 (2006)
5. V Colizza, A Flammini, A Maritan, A Vespignani
Characterization and modeling of protein-protein interaction networks.
Physica A 352, 1 (2005)
4. A Rinaldo, J.R Banavar, V Colizza, A Maritan.
On network form and function.
Physica A 340, 749 (2004)
3. V Colizza, J.R Banavar, A Maritan, A Rinaldo.
Network structures from selection principles.
Physical Review Letters 92, 198701 (2004)
2. A Barrat, V Colizza, V Loreto.
Fluctuation-dissipation ratio for compacting granular media.
Physical Review E 66, 011310 (2002)
1. V Colizza, A Barrat, V Loreto.
Definition of temperature in dense granular media.
Physical Review E 65, 050301(R) (2002)

Granular media

PROCEEDINGS

5. D Paolotti, C Gioannini, V Colizza, A Vespignani
Internet based monitoring system for influenza-like-illness: H1N1 surveillance in Italy in Proceedings of the 3rd International ICST Conference on Electronic Healthcare for the 21st century (eHealth 2010) Casablanca, Morocco, December 2010)
4. A Barrat, C Cattuto, V Colizza, L Isella, C Rizzo, A.E Tozzi, W Van den Broeck
Wearable sensor networks for measuring face-to-face contact patterns in healthcare settings
in Proceedings of the 3rd International ICST Conference on Electronic Healthcare for

the 21st century (eHealth 2010) Casablanca, Morocco, December 2010)

3. F Gargiulo, A Barrat, V Colizza, J.J Ramasco, A Vespignani
Network structures and epidemic waves in metapopulation models
in *BIOMAT 2008* (World Scientific Co.Pte.Ltd., 2009)
2. V Colizza, A Barrat, M Barthelemy, A Vespignani
Epidemic predictions and predictability in complex environments
in *BIOMAT 2007* (World Scientific Co.Pte.Ltd., 2008)
1. M Barthélemy, A Barrat, V Colizza, A Vespignani
Epidemic modeling and complex realities
in Complexity, Metastability and Nonextensivity, Proceedings of the 31st Workshop of
the International School of Solid State Physics, Series Editor A. Zichichi (2005)

software & online resources

gleamviz.org: resource website on the Global Epidemic and Mobility modeler that integrates sociodemographic and population mobility data to provide a computational platform for the large-scale spreading of infectious diseases.

GLEAMviz Simulator: publicly available software system for the simulation of emerging infectious diseases spreading across the world. It is a client-server system. Users interact with the GLEAMviz system through the client application, which is used to define simulations, keep a history of performed simulations, and visualize and/or export the simulation results. The GLEAMviz server integrates the large-scale data-driven model GLEAM (global epidemic and mobility model) and performs the actual simulations after receiving the necessary instructions from the client, then serving the numerical results back to the client. The Simulator allows to: configure highly flexible disease compartmental model and simulation scenarios; explore the results of the simulation in terms of dynamic maps and charts; assess epidemic scenarios, predict infectious disease evolution, manage health emergencies, with no required specific modeling or computational expertise. Available for download at <http://www.gleamviz.org/simulator/>

influweb.it: resource website for the online surveillance of influenza in Italy among the general population. The online system collects daily data on the influenza conditions of more than 4,000 volunteers recruited among the Italian population, and produces analysis of the influenza evolution in the country in real time at the resolution scale of the zip code. The system is partnered with other influenza monitoring systems across Europe, see www.influenzanet.eu. It was launched in 2008.

grippenet.fr: resource website for the online surveillance of influenza in France among the general population. The online system collects daily data on the influenza conditions of more than 4,000 volunteers recruited among the French population, and produces analysis of the influenza evolution in the country in real time at the resolution scale of the zip code. The system is partnered with other influenza monitoring systems across Europe. It was launched in test phase in January 2012.

epifor.eu: resource website on the ERC Starting Grant EpiFor, its research activities and results.

dissemination videos: also listed in the Editorial Material Section under PUBLICATIONS, these videos are meant to present and explain the various projects. They are published under the Vimeo.com platform.

- Optimizing surveillance for livestock disease spreading through animal movements, <http://vimeo.com/68881358> (2013)
- GLEAMviz – The Global Epidemic and Mobility Model, <http://vimeo.com/45692502> (2012)
- GLEAMviz 2.6 teaser #2 – propagation of H1N1pdm, <http://vimeo.com/17441056> (2010)
- GLEAMviz 2.6 teaser #1 – propagation of H1N1pdm, <http://vimeo.com/17840291> (2010)
- GLEAMviz Simulator Tutorial, <http://vimeo.com/12941123> (2010)
- GLEAMviz Simulator Overview, <http://vimeo.com/11267513> (2010)
- GLEAM overview, <http://vimeo.com/10143277> (2010)

invited talks

International Workshop “Mathematics and Physics of Multilayer Complex Networks”, Dresden, Germany, July 6-8, 2015.

1st International Summer Institute in Complexity Science for Health Systems, Vancouver, Canada, June 15-26, 2015.

International Workshop “Dynamical Processes on Networks – theory and applications in social sciences and biology”, Sigtuna, Sweden, June 14-18, 2015.

Santa Fe Institute Workshop “Dynamics of and on networks”, Santa Fe, NM, USA, December 1-5, 2014.

#BDF4DATA – Better Decisions Forum for Open & Big Data, Rome, Italy, November 12, 2014.

ECCS2014 – European Conference of Complex Systems, Lucca, Italy, September 22-26, 2014
[plenary]

MPDE’14 – International Conference on Models in Population Dynamics and Biology, Turin, Italy, August 25-29, 2014.

ESOF2014 – European Open Science Forum, Copenhagen, Denmark, June 24, 2014.

NetSci2014 – International School and Conference on Network Science, Berkeley, CA, USA, June 2-6, 2014. *[keynote]*

Cambridge Networks Day, Cambridge, UK, May 23, 2014.

Workshop on zoonotic features of viral infections, Rome, Italy, April 8-11, 2014.

Symposium, University Medical Center Groningen, The Netherlands, February 24, 2014.

Network Frontier Workshop, NICO @Northwestern University, Evanston, IL, USA, December 4-6, 2013.

Journee du Centre Blaise Pascal, Data Analysis and Modeling in Life Sciences, ENS Lyon, France, November 28, 2013

ICT 2013: Create, Connect, Grow; Vilnius, Lithuania, November 6-8, 2013.

European Conference in Theoretical and Quantitative Geography, Dourdan, France, September 5-9, 2013 *[keynote]*

Science Foo Camp by Google, O'Reilly, Nature, @Google, Mountain View, CA, USA, June 21-23, 2013

SIMID workshop on Simulation Models of Infectious Disease Transmission and Control Processes, Antwerp, Belgium, April 17-18, 2013.

2nd International Workshop on Participatory Surveillance, Amsterdam, The Netherlands, April 15-17, 2013.

Young Scientist Award 2013 for Social and Econophysics. Annual Meeting of German Physical Society, Socio-Economic Division, Regensburg, Germany, March 11-15, 2013. *[prize talk]*

French National Meeting on Complex Systems 2012, Montpellier, France, Oct 2, 2012.

Workshop "*Complex systems analysis: advancing health systems policy design and planning*", Rockefeller Foundation's Bellagio Center, Italy, Sept 24-28, 2012.

ECCS2012 Satellite Meeting "*Complexity paradigm for smart, green, and integrated transport 2012*", Brussels, Belgium, Sept 6, 2012.

SCOR "*Pandemic Risk Conference*", Paris, France, July 9-10, 2012.

Masters' Class "*From Data to Decision: How to Integrate Modeling Methodologies to Inform Public Health Policy*", Vancouver, BC, Canada, May 30 - June 1, 2012.

Séminaire thématique transmission des agents infectieux, Institut Microbiologie et maladies Infectieuses, l'Abbaye des Vaux de Cernay, March 22-23, 2012.

ECDC (European Center for Disease Control and Prevention) Infectious Disease Modeling Meeting, ECDC, Stockholm, Sweden, November 14-15, 2011.

Workshop on 'Multiscale computational modeling for zoonotic epidemics', Kansas State University, Kansas City, KS, USA, October 10-12, 2011.

RAPIDD Workshop 'Modeling Foot-and-Mouth disease in the USA' University of Colorado, Fort Collins, CO, USA, September 1-2, 2011.

Workshop 'The role of modeling in influenza pandemic planning and response: lessons from 2009' Venice, Italy, May 26-27, 2011.

International Conference on Innovation and Information Technologies, Abu Dhabi, UAE, April 25-27, 2011. *[keynote]*

SAMSI Workshop 'Dynamics on networks', RTI, NC, USA, March 21-23, 2011.

ECDC (European Center for Disease Control and Prevention) H1N1 Modeling Meeting, Stockholm, Sweden, Oct 19-20, 2010.

Workshop on Data Driven Dynamical Networks, Les Houches, France, Sept 26-Oct 1, 2010.

Euro-Par 2010 – International Conference on Parallel and Distributed Computing, Aug 31-Sept 3, 2010. *[plenary]*

NetSci2010 – International School and Conference on Network Science, Northeastern University, Boston, & MIT, Cambridge, MA, USA, May 10-14, 2010.

American Physical Society 2010 March Meeting, Portland, Oregon, USA, March 15-19, 2010.

Global Health Conference – Global Flows in Global Health: Inter-Asian Connections, United Arab Emirates University, Al-Ain, Jan 4-8, 2010. *[keynote]*

Frontiers in Network Science – Advances and applications, Berlin, Germany, September 28-30, 2009. *[keynote]*

ICCS2009 – Compute. Discover. Innovate. – International Conference on Computational Science, Baton Rouge, Louisiana, USA, May 25-27, 2009. *[keynote]*

PAESS08 – Physics applied to Economics and Social Sciences, Porto Alegre, Brazil, November 25-29, 2008.

BIOMAT2008 – 8th International Symposium on Mathematical and Computational Biology, Campos do Jordao, SP, Brazil, November 22-27, 2008. *[keynote]*

The National Academies Keck Futures Initiatives 2008 – Complex Systems. Pre-conference Tutorial Webcast, September 24, 2008, available at http://progressive.playstream.com/nakfi/progressive/keck/webcasts/complexity_2008/colizza/colizza.htm

Meeting on Complexity and Networks – Epidemic Spreading and Networks, Imperial College, London, UK, October 1, 2008.

NetSci08 – International Workshop and Conference on Network Science, Norwich Research Park, UK, June 23-27, 2008.

NICO Complexity Conference 2008, Northwestern Institute on Complex Systems, Northwestern University, Chicago, IL, USA, May 19-21, 2008.

Sony CSL Second International Workshop – Solutions for a Sustainable World, Camargo Foundation, Cassis, France, April 27-30, 2008.

Advances in Modelization for Infectious Diseases, Fondation Merieux, “Les Pensieres“, Annecy, France, December 10-12, 2007.

Second European PhD Complexity School, Stochastic Effects in Differential Nonlinear Models – How to bridge theoretical predictions to empirical models, ISI Foundation, Turin, November 22-27, 2007

Italy-Israel Meeting, Complex Networks in Biology and Engineering, from Principles to Applications, Tel Aviv University, Tel Aviv, Israel, October 24-25, 2007

Complex Networks: Dynamics and Topology Interplay, ECCS07 Satellite Meeting, Dresden, Germany, October 4-5, 2007

AUTOMATA 2007, 13th International Workshop on Cellular Automata, The Fields Institute, Toronto, Canada, August 27-29, 2007

GIACS (General Integration of the Applications of Complexity in Science) 1st Advanced Introduction, Agent Based models: from analytical models to real life phenomenology, Institute for Scientific Interchange (ISI) Foundation, Turin, Italy, April 5-10, 2006.

EXYSTENCE Thematic Institute, Interfacing Networks: from behavioral networks to info-structures and infrastructures, Institute for Scientific Interchange (ISI) Foundation, Turin, Italy, January 21 – February 9, 2006.

contributed talks

MISMS meeting 2014 – Multinational Influenza Seasonal Mortality Study, Washington DC, June 30-July 3, 2014

NetSci2014 Satellite Meeting – Urban Networks & Systems, Berkeley, CA, USA, June 2, 2014

EPIDEMICS4, 4th International Conference on Infectious Disease Dynamics, Amsterdam, The Netherlands, November 19-22, 2013.

International Conference on Risk Analysis as a Tool for the Control of Animal Diseases and Zoonoses in the Mediterranean Basin, Teramo, Italy, November 5-7, 2013.

ECCS2013 Satellite Meeting – CitiSen2013, 2nd International Workshop on Citizen Sensor Networks, Barcelona, Spain, September 19, 2013.

ECCS2013, European Conference of Complex Systems, Barcelona, Spain, September 16-20, 2013.

NetSci2013, International Workshop and Conference on Network Science, Copenhagen, Denmark, June 5-7, 2013.

EPIWORK International Workshop “Digital Epidemiology”, Turin, Italy, May 30-31, 2013.

ECCS2010 Satellite Meeting – Emergence, path dependence and transitions in geographical space, Lisbon, Portugal, Sept 13-17, 2010

EPIDEMICS² – Second International Conference on Infectious Disease Dynamics, Athens, Greece, Dec 2-4, 2009.

MANDYN – Modeling and Analysis of Human Dynamics, Satellite Workshop of COMPLEX 09 – First International Conference on Complex Sciences: Theory and Applications, Shanghai, China, February 25, 2009.

COMPLEX 09 – First International Conference on Complex Sciences: Theory and Applications, Shanghai, China, February 23-25, 2009.

BIOMAT 2007 – International Symposium on Mathematical and Computational Biology, Armacao dos Buzios, RJ, Brazil, November 24-29, 2007.

European Conference of Complex Systems, ECCS07, Dresden, Germany, October 1-5, 2007.

Complex Networks: from Biology to Information Technology, Satellite StatPhys23, Pula, Italy, July 2-6, 2007.

European Conference of Complex Systems, ECCS06, Oxford, UK, September 25-29, 2006.

NetSci06, International Workshop and Conference on Network Science, Bloomington, IN, USA, May 16-25, 2006.

American Physical Society March Meeting 2006, Baltimore, MD, USA, March 13-17, 2006.

European Conference of Complex Systems, ECCS05, Paris, November 14-18, 2005.

School and Workshop on Structure and Function of Complex Networks, ICTP, Trieste, Italy, May 16-28, 2005.

American Physical Society March Meeting 2005, Los Angeles, CA, USA, March 21-25, 2005.

Bologna Winter School 2004 on The state of the art of Protein-Protein Interaction Networks, University of Bologna, Italy, February 8-14, 2004.

Conference on Growing Networks and Graphs in Statistical Physics, Finance, Biology and Social Systems, University of Rome, Italy, September 1-5, 2003.

*invited seminars
& colloquia*

Seminar Series at Oxford University Applied Math Dept, Oxford, UK, March 5, 2015.

Eugene Wigner Colloquium, TU Berlin, Berlin, Germany, January 15, 2015.

Seminar Series of the Dept of Applied Mathematics, University of Milan, Milan, Italy, October 23, 2014.

Seminar Series of System Biology Program, Aveiro University, Aveiro, Portugal, May 16, 2013.

Seminar Series, Division of Theoretical Biology, Linkoping University, Linkoping, Sweden, April 26, 2012.

Journee de l'Ecole Doctorale Pierre Louis de Sante Publique, Saint Malo October 19-21, 2011.

Seminar Bocconi University, Milan, Italy, November 15, 2010.

Seminar Emirates Aviation College, Dubai, UAEU, June 8, 2010.

Seminar Laboratoire de Physique de l'Ecole Normal Supérieure de Lyon, Lyon, France, March 5, 2010.

Seminar in Statistical Physics & Condensed Matter, Centre de Physique Theorique, Marseille, France, February 17, 2010.

Seminar Laboratoire de Physique Theorique et Modeles Statistiques, Universite Paris-Sud, Orsay, France, February 11, 2010.

Seminar Series, Fondazione Bruno Kessler, Trento, Italy, March 31, 2009.

CABDyN Seminar Series, Said Business School, Oxford University, Oxford, UK, March 18, 2009.

Seminar Series, Department of Mathematical Engineering, Université Catholique de Louvain, Louvain-la-Neuve, Belgium, March 28, 2008.

Séminaire de Matière Condensée et Physique Statistique, Institut de Theorie des Phenomenes Physiques, Ecole Polytechnique Fédéral de Lausanne, Switzerland, March 3, 2008

Seminar Series, Theoretical Epidemiology Group, Instituto Gulbenkian de Ciencia, Oeiras, Portugal, November 8, 2007.

Seminar Series, Department of Theoretical Physics, University of Turin, Turin, Italy, September 28, 2007.

Colloquium Series, Department of Geography, Indiana University, Bloomington, IN, USA, September 7, 2007.

Seminar Series, University of Padova, Department of Physics, June 20, 2007
Physics and Astronomy School Colloquia, University of St. Andrews, May 11, 2007.
Condensed Matter Seminars, University of Notre Dame, Dept. of Physics, November 17, 2006.
Talk Series on Networks and Complex Systems, Indiana University, September 19, 2005.
Seminar Series, Boston University, Center for Polymer Studies, Department of Physics, June 2, 2005.
Biocomplexity Seminars, The Biocomplexity Institute, Indiana University, January 25, 2005.

dissemination

EPIDEMIC PLANET EXHIBITS

Epidemic Planet is the visualization application developed in the context of the GLEaMviz project, which enables its users to interactively compare and learn about the effects of a number of geographic and infection features, as well as intervention scenarios on a pandemic, simulated using GLEaM, the GLObal Epidemic and Mobility model.

Epidemic Planet has been conceived as an installation for scientific exhibitions meant to disseminate the long-running research based on GLEaM. More info can be found [here](#).

Public appearances:

Epidemic Planet Exhibit @ British Library, London, UK, Exhibit 'Beautiful Science', February 20 – May 26, 2014.

Epidemic Planet Exhibit @ Planetarium of Turin, Italy, Museum of Astronomy and Space, Exhibit 'End of the world', May – September 2013.

Epidemic Planet Exhibit @ the CosmoCaixa Exhibition titled 'Epidemia!', Barcelona, Spain, March 2012 – February 2013.

Epidemic Planet Exhibit @ the CosmoCaixa Mobile Exhibition on Convergence Technologies, Spain, October 2010.

Epidemic Planet Exhibit @ the Edinburgh International Science Festival 2010, Edinburgh, UK, April 3-17, 2010.

Epidemic Planet Exhibit @ Art & Science Exhibition *Infectious*, Science Gallery, Dublin, Ireland, April 17 – July 17, 2009.

OTHER ACTIVITIES

Invited Talk @ Science Festival 2011 *Infinitamente*, Verona, Italy, March 19, 2011.

Invited Talk @ *Giovedì Scienza*, Turin, Italy, January 24, 2011.

Invited Talk @ Science Festival 2009 *Future Stories*, Pordenone, Italy, October 24, 2009.

Contributor to the Health Section of conTESTI.eu, scientific dissemination web portal, 2009.

Complexity & Epidemic Modeling, Complex Systems Lagrange Laboratory Showcase for the Convention "Understanding Complexity – a Journey through Science", CSI Piemonte, Torino, Italy, November 22-23, 2007.

V. Colizza, A. Vespignani & E. Hardy, *Impact of Air Travel on Global Spread of Infectious Diseases*, Places & Spaces: Mapping Science Exhibition, 2007 Exhibit: The Power of Forecasts,

<http://www.scimaps.org>, mobile physical showing at the American Museum of Science and Energy, Oak Ridge, TN, USA, September 7, 2007 – January 7, 2008 plus other venues.

V. Colizza & A. Vespignani, *Impact of Air Travel on Global Spread of Infectious Diseases*, map display for “Earth as Art” exhibition for GIS day, <http://www.indiana.edu/~gis/gisday/poster.html>, Indiana University Bloomington Campus, November 14, 2007, and Herron School of Art, IU Purdue University Indianapolis, November 16-30, 2007

in the media

A full list of media hits for the different projects are reported on the webpage of the group: <http://www.epicx-lab.com/media.html>; here I report only an extract of it.

DIGITAL SURVEILLANCE

Nature News. When Google got flu wrong. Declan Butler, Feb 13, 2013.
more on: <https://grippenet.fr/fr/presse/> and on <http://www.epicx-lab.com/media.html>

DATA-DRIVEN COMPUTATIONAL MODELS FOR REALISTIC LARGE-SCALE EPIDEMICS

The activities on the computational modeling for epidemic spreading received a large attention from journals of scientific dissemination, popular press and general media. Here I include a short list of the most relevant press hits in this area – more details can be found on my group’s webpage <http://www.epicx-lab.com/media.html>, on the webpage of my ERC Starting Grant project <http://www.epifor.eu>, and on the webpage of the GLEAMviz project <http://www.gleamviz.org>.

Corriere Comunicazioni – L’Ebola? Si sconfigge (anche) con I Big Data. November 14, 2014.
Inserm – Ebola: les restrictions du transport n’empêchent pas la diffusion du virus. November 7, 2014.

Bloomberg Businessweek. Ebola travel bans buy only time, not safety. November 4, 2014.

Corpus – Comprendre la propagation des epidemies. October 2014.

Arte – Epidemie, la menace invisible. September 9, 2014.

Encyclo – Epidemie, la nouvelle menace. February 11, 2014.

France 3 Television – Tout peut changer. Grippe, virus, microbes... la guerre est declare!
December 9, 2013.

Nautilus – When pigs fly. July 18, 2013

The Economist – Dr. Seldon, I presume. Data from social networks are making social science more scientific. February 23, 2013.

The Lancet – Preparation for a pandemic: influenza A H1N1. May 8, 2009.

Yahoo! news - ‘Worst Case’ Scenario for flu Estimated. May 1, 2009

NewScientist.com - Why travel bans won’t prevent a flu pandemic. April 29, 2009

Emerging Health Threats - Swine flu: modellers look to weeks ahead. April 30, 2009

La Stampa (national italian newspaper) - I numeri per prevedere la pandemia. April 29, 2009

Irish Times - Where the odds are stacked in favour of contagion. May 5, 2009

Le Figaro. Le transport aerien, principal vecteur des epidemies humaines. February 08, 2006

L’Express. Virus: voyage en avion. February 16, 2006

Journal du CNRS. Epidemies: le role des avions. March 2006

New Scientist. Will the drugs still work? Jan 27, 2007

Science Daily. Bird Flu: Predictions Prompt Call for Antiviral Drugs to Be Shared. Jan 23, 2007

- Scientific Computing World. Academics tackle epidemics. Aug/Sept 2007.
 Le Scienze (italian version of Scientific American). Cooperare contro l'aviaria. March 2007.
 FOX 59 News at 10. Feb 19, 2007
 CTV Canada AM. Live interview. Jan 30, 2007.
 BBC News. Alarm sounded over WiFi networks, Jan 27, 2009
 MIT Technology Review. Modeling malware over WiFi, Jan 28, 2009
 Financial Times. Forscher simulieren WLAN-Wurmepidemie, Feb 4, 2009 (german)
 New Scientist. City WiFi networks vulnerable to virus attack, Jan 28, 2009
 Scientific American Podcast. Wireless networks are soft virus targets, Jan 29, 2009
 Scientific Computing World. Academics tackle epidemics. Aug/Sept 2007.
 Social Atom Blog. Predicting epidemics. Mark Buchanan. July 2, 2007.
- EPIDEMIC PLANET
- New Scientist – The beauty and intellectual health of visualized data. Feb 21, 2014.
 Independent – New British Library exhibition pays tribute to most amazing scientific diagrams in history. Feb 19, 2014.
 Wired (Italy) – Beautiful Science. A Londra i dati diventano arte. Feb 22, 2014.
 Open Innovazione (Italy) – Beautiful Science a Londra. I Dati diventano arte. Feb 21, 2014.
 Design Week – Data visualization throughout the ages. Feb 19, 2014.
 Irish Times – Where the odds are stacked in favor of contagion. May 5, 2009.
 Dicult Blog: Infectious: stay away. May, 2009.
- LIVESTOCK MOVEMENTS AND DISEASES
- Science et Sante. Epidemies animals – a la poursuite des fermes sentinelles. Inserm magazine September/October 2012.
 Ministère de l'agriculture, de l'agroalimentaire et de la forêt (French Ministry of Agriculture, Food, and Environment). Le CNRS et l'INSERM ont lancé une recherche sur un modèle prédictif sur les épidémies animales. Summer 2012.
 Allodocteurs. Modeliser les epidemies animals pour mieux les surveiller. July 2, 2012.
- THEORETICAL FOUNDATIONS OF MECHANISTIC EPIDEMIC MODELS IN COMPLEX METAPOPOPULATION SYSTEMS
- Inserm. Dissemination des maladies infectieuses, un nouvel modele predictif. September 24, 2013.
 Allodocteurs. Un nouveau modele pour evaluer les risques de pandemie. September 24, 2013.
 Nature Physics News & Views. Complex Networks: From Data to Models. M.C. Gonzales & A.-L. Barabasi. *Nature Physics* 3, 224 (2007)
- DATA-DRIVEN HUMAN ACTIVITY PATTERNS & EPIDEMIC SPREAD
- SocioPatterns studies*
 Le Progrès - Des badges pour évaluer la transmission des maladies [paper]. July 26, 2011
 Le Point.fr - Des badges pour comprendre la propagation des épidémies. July 19, 2011
 ScienceNOW - Face to Face With Human Mobility Research. July 5th, 2010
 La Stampa - Grande Fratello in ospedale. Nov 17, 2009.
 La Stampa - Influenza A: spiati con un chip per non ammalarsi. Nov. 17th, 2009
 RAI1 national Italian TV: TG1. Nov 11, 2009.
 Repubblica.it – Faccia a faccia con il contagio, un chip per prevenire la malattia. Nov 10, 2009.
 Il Messaggero.it – Un chip per prevenire l'infezione. Nov 10, 2009.
 L'Unità – Salute: Bambino Gesù; con chip studio diffusione infezioni. Nov 11, 2009.
 Science – Spreading the flu. May 22, 2009.

Irish Times – Where the odds are stacked in favour of contagion. May 4, 2009.
Irish Times – Slide show about the Infectious exhibition by Bryan O'Brien. May 2009.

WiFi malware spread

Financial Times. Forscher simulieren WLAN-Wurmepidemie, Feb 4, 2009 (german).
New Scientist. City WiFi networks vulnerable to virus attack, Jan 28, 2009.
Scientific American Podcast. Wireless networks are soft virus targets, Jan 29, 2009.
MIT Technology Review. Modeling malware over WiFi, Jan 28, 2009.
Red Orbit. Researchers expose WiFi network weaknesses, Jan 28, 2009.
BBC News. Alarm sounded over WiFi networks, Jan 27, 2009.
Radio 3 Scienza. interview, Jan 27, 2009 (italian).
La Vanguardia. Las redes wifi favorecen la difusion de virus informaticos, Jan 27, 2009 (spanish).
Galileo. Virus, WiFi a rischio, Jan 27, 2009 (italian).
Ars Technica. WiFi flu: viral router attack could hit whole cities. Jan 02, 2008.
Dark Reading. Urban WiFi routers at risk. Jan 03, 2008.

THEORETICAL
FOUNDATIONS OF
COMPLEX NETWORKS

Herald Times. What's a rich-club? Concept originated in informatics and social networking study at IU. Nov 14, 2011.
Nature Physics News & Views. Lies, Damned Lies and Statistics. *Nature Physics* 2, 73 (2006).
Nature Research Highlights. Exclusive clubs exposed. *Nature* 439, no.7074 (2006).