
BIOGRAPHICAL SKETCH

NAME Merler, Stefano	POSITION TITLE Senior Researcher, Bruno Kessler Foundation, Italy		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Trento, Italy	Laurea	1994	Mathematics

A Positions.

Positions and Employment

1995 - 1996	Fellowship, ITC-IRST, Italy
1996 - 1999	Fellowship, Center of Alpine Ecology, Italy
1999 - present	Senior Researcher, Bruno Kessler Foundation (FBK), Italy
2013 - present	Head of the DPCS (Dynamical Processes in Complex Societies) Research Unit at FBK.

Other Experience and Professional Memberships

- Horizon 2020, 2015-2018
CIMPLEX - Participatory, Interactive Social Exploratories: Bringing together Citizens, Models and Data
Role: Team Coordinator
- Grandi Progetti, Provincia di Trento, 2013-2016
LEXEM - Laboratory of Excellence for Epidemiology and Modelling. Facing the invasion of Invasive Alien Species (IAS) into the territory of the Autonomous Province of Trento.
Role: Team Coordinator
- EC FP7 ICT, 2009-2013
EPIWORK – Developing the framework for an epidemic forecast infrastructure
Role: Team Coordinator
- EC FP7 HEALTH, 2008-2011
FLUMODCONT - Modelling the spread of pandemic influenza and strategies for its containment and mitigation
Role: Team coordinator
- ECDC, 2010-2011
Vaccine preventable diseases modelling in the European Union and EEA/EFTA countries: forecasting the effect of introducing a new vaccine in a national/regional program
Role: Team coordinator
- Italian Ministry of Health, 2008-2011
Epidemiological instruments for monitoring Influenza in Italy
Role: Team coordinator
- Italian Ministry of Health, 2008-2011
Chikungunya virus infection: epidemiological and clinical features
Role: Team coordinator
- Italian Ministry of Health, 2008-2011
Epi-Int
Role: Team coordinator
- Author of about 120 papers
- Awarded with the 15th Bellman Prize (2015)
- Awarded with the 2016 Aspen Prize
- Academic Editor of PLOS One

- Reviewer for most influential journals of infectious diseases (Lancet, PNAS, Nature Communication, BMC Medicine, Emerging Infectious Diseases)

B. Selected peer-reviewed publications (2010-2016).

1. C. Ciavarella et al. School closure policies at municipality level for mitigating influenza spread: a model-based evaluation. *BMC Infectious Diseases*, 2016, 16:576.
2. S. Merler et al. Containing Ebola at the source with ring vaccination. *PLOS Neglected Tropical Diseases*. 2016. 10(11):e0005093.
3. M. Ajelli et al. Spatiotemporal dynamics of the Ebola epidemic in Guinea and implications for vaccination and disease elimination: a computational modelling analysis. *BMC Medicine*, 2016, 14(1): 130.
4. S. Merler. Effects of clustered transmission on epidemic growth Comment on "Mathematical models to characterize early epidemic growth: A review" by Gerardo Chowell et al. *Physics of Life Reviews*, 2016, doi:10.1016/j.plrev.2016.08.005.
5. G. Guzzetta et al. Potential risk of dengue and chikungunya outbreaks in northern Italy based on a population model of *Aedes albopictus* (Diptera: Culicidae). *Plos Neglected Tropical Diseases*, 2016.10(6):e0004762.
6. S. Sarubbo et al. Structural and functional integration between dorsal and ventral language streams as revealed by blunt dissection and direct electrical stimulation. *Human Brain Mapping*, 2016, doi:10.1002/hbm.23281
7. G. Marini et al. The Role of Climatic and Density Dependent Factors in Shaping Mosquito Population Dynamics: The Case of *Culex pipiens* in Northwestern Italy. *PLoS ONE* 11(4): e0154018, 2016.
8. G. Guzzetta et al. Assessing the potential risk of Zika virus epidemics in temperate areas with established *Aedes albopictus* populations. *Euro Surveill*. 2016;21(15):pii=30199, 2016.
9. G. Guzzetta et al. The epidemiology of Herpes Zoster after varicella immunization under different biological hypotheses: perspectives from mathematical modeling. *American Journal of Epidemiology*. 183:765-773, 2016.
10. L. Fumanelli et al. Model-Based Comprehensive Analysis of School Closure Policies for Mitigating Influenza Epidemics and Pandemics. *PLOS Computational Biology*, 12(1):e1004681, 2016.
11. M. Ajelli et al. The 2014 Ebola virus disease outbreak in Pujehun, Sierra Leone: epidemiology and impact of interventions. *BMC Medicine*, 2015, 13:281.
12. S. Sarubbo et al. Towards a functional atlas of human brain matter. *Human Brain Mapping*, 2015, doi: 10.1002/hbm.22832, 2015.
13. G. Guzzetta et al. Effectiveness of contact investigations for tuberculosis control in Arkansas. *Journal of Theoretical Biology*, 2015, 380:238–246.
14. S. Merler et al. Spatiotemporal spread of the 2014 outbreak of Ebola virus disease in Liberia and the effectiveness of non-pharmaceutical interventions: a computational modelling analysis. *Lancet Infectious Disease*, 15:204-211, 2015.
15. V. Marziano et al. The impact of demographic changes on the epidemiology of Herpes Zoster: Spain as a case study. *Proceedings of the Royal Society B: Biological Sciences*, 282(1804):20142509, 2015.
16. P. Poletti et al. Evaluating vaccination strategies for reducing infant respiratory syncytial virus infection in low-income settings. *BMC Medicine*, 10;13:49, 2015
17. M. Ajelli et al. The role of different social contexts in shaping influenza transmission during the 2009 pandemic. *Scientific Reports*, 4: 7218, 2014.
18. S Merler and M. Ajelli. Deciphering the relative weights of demographic transition and vaccination in the decrease of measles incidence in Italy. *Proceedings of the Royal Society B*, 281(1777):1471-2954, 2014.
19. S. Merler et al. Containing the accidental laboratory escape of potential pandemic influenza viruses. *BMC Medicine*, 11:252, 2013
20. S. Merler et al. Seroepidemiological study of the Pandemic influenza A/H1N1pdm in Italy: age, risk and susceptibility of the population, *PLOS ONE*, 8(10): e74785, 2013.
21. P. Poletti et al. Perspectives on the impact of varicella immunization on herpes zoster. A model-based evaluation from three European countries. *PLOS ONE*, 8(4): e60732, 2013.
22. S. Merler and J. Jurman. A combinatorial model of malware diffusion via Bluetooth connections. *PLOS ONE*, 8(3): e59468, 2013.
23. G. Guzzetta et al. Hope-Simpson's progressive immunity hypothesis may explain Herpes Zoster incidence data. *American Journal of Epidemiology*, 177(10) 1134-1142, 2013.
24. M. Ajelli and S. Merler. Transmission Potential and Design of Adequate Control Measures for Marburg Hemorrhagic Fever. *PLOS ONE* ,7(12): e50948, 2012.
25. L. Fumanelli et al. The structure of social contacts and the spreading of infectious diseases. *PLoS Computational Biology*, 8(9): e1002673, 2012.
26. P. Poletti et a. Risk perception and effectiveness of uncoordinated behavioral responses in an emerging epidemic. *Mathematical Biosciences*, 238: 80–89, 2012.
27. S. Merler et al. Determinants of the spatiotemporal dynamics of the 2009 H1N1 pandemic in Europe: implications for real-time modelling. *PLoS Computational Biology*, 7(9): e1002205, 2011.
28. G. Guzzetta et al. Modeling socio-demography to capture tuberculosis transmission dynamics in a low burden setting. *Journal of Theoretical Biology*, 289:197-205, 2011.
29. P. Poletti et al. Transmission potential of Chikungunya virus and control measures: the case of Italy. *PLoS ONE*, 6(5):

- e18860, 2011.
30. C. Rizzo et al. Epidemiology and transmission dynamics of the 1918-19 pandemic influenza in Florence, Italy. *Vaccine*, 29:27-32, 2011.
 31. M. Ajelli et al. Evaluation of model prediction during the early phase of the 2009 influenza pandemic in Italy. *Influenza and Other Respiratory Viruses*, 5:202-229, 2011
 32. P. Poletti et al. The effect of risk perception on the 2009 H1N1 pandemic influenza dynamics. *PLoS ONE*, 6(2): e16460, 2011.
 33. M. Ajelli et al. Spatiotemporal dynamics of viral hepatitis A in Italy. *Theoretical Population Biology*, 79:1-11, 2011.
 34. M. Ajelli et al. Model predictions and evaluation of possible control strategies for the 2009 A/H1N1v influenza pandemic in Italy. *Epidemiology and Infection*, 139: 68-79, 2011.
 35. F. Iozzi et al. Little Italy: an agent-based approach to the estimation of contact patterns. Fitting predicted matrices to serological data. *PLoS Computational Biology*, 6(12): e1001021, 2010.
 36. M. Ajelli et al. Comparing large-scale computational approaches to epidemic modeling: agent-based versus structured metapopulation models. *BMC Infectious Diseases*, 10:190, 2010.
 37. S. Merler and M. Ajelli. The role of population heterogeneity and human mobility in the spread of pandemic influenza. *Proceedings of the Royal Society B*, 277: 557-565, 2010.