

GIANLUIGI ROSSI

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CURRENT POSITION

Postdoctoral research associate 2015 – present
Department of Pathobiology, College of Veterinary Medicine, University of Illinois at Urbana-Champaign (IL, USA)

EDUCATION

University of Parma – Ph.D., Ecology (disease ecology and epidemiology) 2012 – 2015
University of Parma – M.Sc., Sciences and Technologies for the Environment 2006 – 2009
Madrid Autonoma University – Student Interchange Program (6 months) 2007
University of Parma – B.Sc., Environmental Sciences 2003 – 2006
L.S. Colombini (Piacenza) – High school scientific diploma 1998 – 2003

PREVIOUS POSITIONS AND RESEARCH EXPERIENCES

Research fellowship at IZSLER (Parma) 2015
In 2015 I had a 5 months research fellowship at the Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna (Parma section, risk analysis unit). During this period I continued my research on disease spread and network analysis of dairy cattle farms network.

Visiting Graduate Student at Stanford University 2012 – 2014
I spent part of my PhD as a visiting student (summer months) at De Leo's Lab (Hopkins Marine Station, Stanford University, Monterey, CA USA), doing research on mathematical models for bovine tuberculosis disease dynamics in collaboration with Professor Giulio De Leo.

Collaboration/Research in ecology 2009 – 2011
I have contributed to the realization of the ongoing Fiorenza Micheli's (Stanford University) project on developing historical dataset of ocean data (temperature, Chlorophyll-a, etc.), re-arrangement and classification of the series in a database.

Collaboration/Research in population ecology 2009 – 2011
I have worked with Simone Vincenzi (University of California Santa Cruz) on a project about calculation of movement and survival rates in population of marble trout *Salmo marmoratus* living in the streams of the basin of river Soca (Slovenia).

RESEARCH INTERESTS

- Population ecology and pathogen dynamics in host populations
- Farmed animal diseases transmission and dynamics
- Surveillance and control strategies for infectious diseases spread
- Transmission processes of diseases at the humans/domestic/wildlife interface
- Trends in global diffusion of vector-borne diseases

RESEARCH SKILLS

- Use of dynamical (deterministic and stochastic) models to solve problems in population ecology and epidemiology
- Use of networks and principles of graph theory to represent complex systems
- Use of model fitting and statistical tools to analyze data (R, MS Excel)
- Use of mathematical, statistical and ecological software and programming languages: R, Python, C++(basic), Cytoscape, Qgis, Gephi (basic), Program MARK, Beamer

PUBLICATIONS

- *Rossi, De Leo, Pongolini, Natalini, Zarengi, Ricchi, Bolzoni*, 2016. The potential role of direct and indirect contacts on infection spread in dairy farms networks. (in review)
- *Rossi, De Leo, Pongolini, Natalini, Vincenzi, Bolzoni*, 2015. Epidemiological modeling for the assessment of bovine tuberculosis surveillance in Emilia-Romagna Italy. *Epidemics*, 11. 62:70.
- *Vincenzi, Crivelli, Jesensek, Rossi, De Leo*, 2011. Innocent until proven guilty? Stable coexistence of alien rainbow trout and native marble trout in a Slovenian stream. *Naturwissenschaften*, 66. 98:57.

CONTRIBUTED TALKS, SEMINARS AND POSTERS**Veterinary epidemiology**

- CRWAD (Chicago, IL, USA) – Contributed talk 2015
- ISVEE 14 (Merida, Yucatan, Mexico) – Contributed talk 2015
- Seminar at the Department of Pathobiology, University of Illinois at Urbana-Champaign – Seminar 2014
- 7th Epizone Meeting (Bruxelles, Belgium) - Poster 2013

Complex systems and network science

- Conference on Complex Systems: YRNCS Satellite (Tempe, AZ, USA) – Contributed talk 2015
- Conference on Complex Systems: Contagion Satellite (Tempe, AZ, USA) – Contributed talk 2015
- European Conference Complex Systems: Contagion Satellite (Lucca, Italy) – Contributed talk 2014

Ecology

- 24th Congress of the Ecological Society of Italy (Ferrara, Italy) – Contributed talk 2014
- 99th Meeting of the Ecological Society of America (Sacramento, CA, USA) – Contributed talk 2014
- 23rd Congress of the Ecological Society of Italy (Ancona, Italy) – Contributed talk 2013
- ICTP Workshop on Infectious Diseases (Trieste, Italy) – Workshop's participant talk 2013

TEACHING

- Introduction to networks in epidemiology (2 hours, course: Spatial Epidemiology, Prof. Matylin O'Hara Ruiz, University of Illinois at Urbana-Champaign) 2016
- Introduction to epidemic models (4 hours, course: Theoretical biology and Models, Prof. James P. O'Dwyer, University of Illinois at Urbana-Champaign) 2015
- Ecological models in R (4 hours, course: Applied Ecology, Prof. Paolo Menozzi, University of Parma) 2013

GRANTS AND AWARDS

- University of Illinois NCSA Fellows: *Optimization of Agent-Based Models to Improve Infectious Disease Management*. (PI: Smith, R.L.; 06/01/2016-05/31/2017; \$25,000) 2016-2017
- Conference on Complex Systems (Tempe, AZ, USA) YRNCS travel grant 2015
- PhD scholarship, Ministry of Education, Universities, and Research (MIUR) 2012-2014

OTHER MEETINGS, COURSES AND WORKSHOPS ATTENDED

- *Networks: Theory, Methods, and Applications* School (Como, Italy) 2015
- *Primer in Ecological Network* Summer School (University of Parma, Italy) 2014
- *Les Houches School on Complex Network* (CNRS & Aix-Marseille University, and ISI Foundation, Les Houches, France) 2014
- *Spatial Dynamics in Biology* (Politecnico di Milano, Milano, Italy) 2013
- *Analysis of Complex Network* (Politecnico di Milano, Milano, Italy) 2013
- Summer Institute in *Statistic and Modeling of Infectious Diseases* (University of Washington, Seattle, WA, USA) 2012
- 97th Meeting of the Ecological Society of America (Portland, OR, USA) 2012
- *ICTP Workshop on Infectious Diseases* (ICTP, Arusha, Tanzania) 2012

SERVICES

- Reviewer for *Infectious Diseases of Poverty* Journal (BioMed Central) 2015

LANGUAGES

- Italian:** native
- English:** excellent
- Spanish:** excellent
- French:** fair

OTHER WORKING EXPERIENCES

- Own start-up (environmental risk management and certifications consultant) 2009 – 2011
- Chemical analyst in laboratory for a food processing factory (summer job) 2003 – 2009