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Research interests

Ecology, epidemiology and dynamics of complex systems.

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Appointments held

- 2016 - now Professor of Ecology, DEIB, PoliMi
- 2006 - now Associate Professor of Ecology, PoliMi
- 2002-2006 Assistant Professor, DEI, PoliMi
- 2000-2002 Postdoctoral Fellow and Lecturer, PoliMi
- 2000 Postdoctoral Fellow (Advisor [Simon A. Levin](#)), Department of Ecology and Evolutionary Biology (EEB), Princeton University (NJ, USA).

Education

- 1999 PhD in Ecology, Università degli Studi di Parma, Italy
Advisor: [Marino Gatto](#), PoliMI
Thesis: *Mesoscale models for metapopulation dynamics*.
In a nutshell, the thesis has been published as *Letter* in *Nature*.
- 1996 M.Sc. (Laurea) in Electronic Engineering, PoliMI.
Advisor: [Sergio Rinaldi](#), PoliMI
Thesis: *Fires in the Mediterranean forest: Proposal and analysis of a model*.
The thesis was awarded the *Eni Award* (*Ideas for a brighter future*, see below) and published in *The American Naturalist*.

Visiting

- 2010 *Visiting Scientist* at MIT in a Seed Funding **Roberto Rocca Project** (CO-PI with M. Gatto and R. Stocker)
- 2009 *Visiting Scientist* at the Department of Ecology and Evolutionary Biology at Princeton *Visiting Scholar* at the **Movement Ecology Group, Institute for Advanced Study**, Hebrew University of Jerusalem, Israel
- 1999 *Visiting graduate student* at the Dept of EEB, Princeton University (NJ, USA)
- 1997 & 1993 *Visiting graduate student and undergraduate student* at the Adaptive Dynamics Network group (now **EEP**), **International Institute for Applied Systems Analysis**, Laxenburg, Austria.

Awards and honors

- 2016 **Polisocial Award** for the project **MASTR-SLS** (MApping Schistosomiasis Transmission Risk in Saint Louis region, S enegal (**MASTR-SLS**))
- 2015 D4D Health Prize, **Data for Development Challenge – Orange**
- 2008 Personally **acknowledged** as a special contributor (together with Roger A. Powell only) to the development of the **Movement Ecology** paradigm that deserved a Special Feature in PNAS (see the leading article by **Nathan et al. 2008**)
- 2004 Invited lecture at the **Gordon Research Conference** on Theoretical Biology and Biomathematics, Tilton (NH, USA).
- 2001 **Commentary article** in PNAS by **David Tilman** on the work made during the PostDoc at Princeton and resulting in a companion PNAS paper (**Norberg et al. 2001**)
- 1998 **Eni Award Fellowship “Ideas for a brighter future”** (formerly *Italgas Prize*) for the best master thesis discussed in Italy on *Energy and the Environment* during the period 1996-98.

Participation in scientific projects

- 2017-now PI of the Polisocial project **MASTR-SLS** (MApping Schistosomiasis Transmission Risk in the Saint Louis region, Senegal).
- 2016-now Member of the Working Group on **Optimal Control of NTDs** (Neglected Tropical Diseases) at **NIM-BioS** (National Institute for Mathematical and Biological Synthesis), a **National Science Foundation** Synthesis Center at the **University of Tennessee**, Knoxville (USA).
- 2016-now PI at PoliMI (with Marino Gatto) of the **H2020** project **Ecopotential: Improving future ecosystem benefits through earth observation** (EU PI: **Antonello Provenzale**)
- 2010-2014 PI of the project “Climate Change Assessment in Small Pacific Islands States”, involving **MOX** (**Luca Bonaventura**), **IUSS** (**Franco Brezzi**) & **CMCC** (**Simona Masina**)
- 2012-2016 **CoCoNet** - Towards COast to COast NETworks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential, 7th EU Framework Programme (PI: Nando Boero)
- 2012-2016 **ECO2Clouds: Experimental Awareness of CO2 in Federated Cloud Sourcing**, 7th EU Framework Programme (PI at PoliMI: **Barbara Pernici**)
- 2011-2012 Project **Fondazione Cariplo “Sulla strada della sostenibilit a”** (PI: **Giorgio Guariso**)
- 2010-2011 Seed project **MISTI, Progetto Rocca at MIT**, “Movement ecology at the microscale: experiments and models with predator-prey bacteria” (PI: **Roman Stocker**, Marino Gatto; CO-PI: Renato Casagrandi)
- 2010-2013 Research group “Alpine galliformes” within the **INTERREG-ALCOTRA** (PI: Antonello Provenzale, ISAC-CNR)
- 2008-2011 Project **Interlink** (Italian Ministry of University & Research, MIUR #II04CE49G8) “Impacts of global climate change and consequences on management and conservation of natural resources” (PI: Marino Gatto, PoliMI)
- 2007 Research group at the **Institute for Advanced Studies**, “**Movement Ecology: Establishing a novel**

interdisciplinary field of research to explore the causes, patterns, mechanisms and consequences of organism movements” (PI: Ran Nathan, HUJI). A **Special Issue** of PNAS has been devoted to the outcomes of our work

- 2007 Project **WING (Environment)** aimed at evaluating research programs in *Information Society and Technology* funded by European Community (Local PI: William Fornaciari)
- 2006-2008 Project **PRIN #2006054928**: “An integrated approach to conservation and management of European eel in the Mediterranean” (PI: Giulio De Leo, Università di Parma)
- 2002-2005 Project **FIRB #RBNE01CW3M**: “Self-organized cellular networks and nonlinear chaotic dynamics to model and control complex systems” (PI: Luigi Fortuna, Università di Catania)
- 2001-2002 Project **NIH-#R01GM060729**: “Population biology and evolution of influenza A”, (PI: Simon A. Levin; Co-PI: Viggo Andreasen, Freddy B. Christiansen).
- 2001 Project **NSF-IBN 9981620**: “Long distance dispersal of tree seeds by wind: underlying mechanisms, mathematical prediction and field quantification” (PI: Simon A. Levin; CO-PIs: Henry S. Horn, Stephen W. Pacala).
- 2000-2001 Project **CNR**, “Biodiversity and ecosystems functioning” (PI: Fausto Manes, Università di Roma).
- 1999-2000 Project **CNR**, “Mathematical methods and models to study biological phenomena” (PI: Mimmo Iannelli, Università di Trento).
- 2000 PI of the project for young researchers “Analysis and management of ecological systems” (**Politecnico di Milano**).

Service to the profession

International level

- 2015 Invited editor for the **Proceedings of the National Academy of Sciences of the United States of America**
- 2015 Reviewer of research projects submitted to eligibility for **NSF** (Mountains as sentinels of change, **Belmont Forum**)
- 2014 & 2015 Reviewer of research projects submitted to eligibility for *Starting or Consolidator grants* of the European Research Council (**ERC**)
- 2005 & 2006 Reviewer of research projects in *Ecology* submitted to the **Netherlands Organisations for Scientific Research**
- 2000-now Reviewer for the following major international journals: **Advances in Water Resources**, **Annales Zoologici Fennici**, **BMC Ecology**, **BMC Infectious Diseases**, **Chaos, Solitons & Fractals**, **Conservation Biology**, **Control Engineering Practice**, **Ecological Modelling**, **Ecography**, **Ecology**, **Ecology Letters**, **Environmental Modelling & Software**, **Evolution**, **Hydrobiologia**, **Journal of Ecology**, **Journal of Mathematical Biology**, **Journal of Theoretical Biology**, **Mathematical and Computer Modelling of Dynamical Systems**, **Mathematical Biosciences**, **Mathematical Medicine and Biology**, **Nonlinear Analysis: Hybrid Systems**, **Natural Resource Modelling**, **Plos ONE**, **Rendiconti Lincei (Scienze Fisiche e Naturali)**, **Science of the Total Environment**, **The American Naturalist**, **Theoretical Population Biology**, **Theoretical Ecology**, **Wildlife Biology**,

National level

- 2007-now Responsible of the web services for the **Italian Society of Ecology (SiTE)**
- 2006-2010 Founder and webmaster of the domain <http://www.ecologia.it> (hosted at PoliMI)
- 2005 Founder (with Marino Gatto) and editor (2005-2010, with Marco Abbiati and Gianmarco Giordani) of the *Italian Newsletter of Ecology*
- 2003 Organizer (with Roberta Bettinetti, Paco Melià, Marino Gatto e Silvana Galassi) of the **XIII National**

Meeting of the Italian Society of Ecology (Como, Italy)

PoliMI level

- 2015 Participation to the **European Researchers' Night** in Milan (Sept 30). See part of the **talk** at the **MEETmeTONIGHT** website.
- 2015 – now Design and webmastering of the portal of Environmental Engineering <http://www.iat.polimi.it> (*Teaching for the Environment Lab*)
- 2014 – now Founder and responsible of the interdepartmental teaching laboratory activity **EnvLAB: Laboratorio di Didattica per l'Ambiente** (*Teaching for the Environment Lab*)
- 2010 – now Elected (2010-2012) and nominated (2013-now) member of the *Giunta della Scuola di Ingegneria Civile, Ambientale e Territoriale (ICAT, Dean committee)*
- 2000 – now Yearly presentation of the PoliMI Environmental Engineering Program in various contexts, such as the **OpenDay**, the *Summer schools* (organized by **Fds**) and many high schools

Teaching

Graduate and undergraduate courses

- 2016/17 *Industrial Ecology*, 8 CFU for the *Laurea Magistrale* in Energy Engineering for an Environmentally Sustainable World at PoliMI (Piacenza campus)
- 2016/17 *Ecologia Urbana*, 4 CFU for the *Laurea* in Urban Planning: Cities, Environment & Landscapes at PoliMI (Milano campus)
- 2016/17 *Ecologia*, 8 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2015/16 *Ecologia*, 8 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2015/16 *Ecologia*, 4 CFU for the *Laurea* in Architecture at PoliMI (Milano campus)
- 2014/15 *Prova Finale (Amb - BIO/07)*, 1 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2014/15 *Ecologia*, 7 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2014/15 *Ecologia*, 4 CFU for the *Laurea* in Architecture at PoliMI (Milano campus)
- 2013/14 *Prova Finale (Amb - BIO/07)*, 1 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2013/14 *Ecologia*, 7 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2012/13 *Prova Finale (Amb - BIO/07)*, 1 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2012/13 *Ecologia*, 7 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2011/12 *Prova Finale (Amb - BIO/07)*, 1 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2011/12 *Ecologia*, 7 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2010/11 *Prova Finale (Amb - BIO/07)*, 1 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2010/11 *Ecologia*, 7 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2010/11 *Ecologia*, 7 CFU for the *Laurea* in Environmental Engineering at PoliMI (Milano campus)
- 2010/11 *Conservation Ecology and Sustainability*, 6 CFU for the *Laurea Specialistica* in Environmental Engineering at PoliMI (Como campus)
- 2009/10 *Ecological Systems*, 6 CFU for the *Laurea Specialistica* in Environmental Engineering at PoliMI (Como campus)
- 2009/10 *Ecologia 1*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (Como campus)
- 2008/09 *Ecology 2*, 5 CFU for the *Laurea Specialistica* in Environmental Engineering at PoliMI (Como campus)
- 2008/09 *Ecologia 1*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (Como campus)

- 2007/08 *Ecology 2*, 5 CFU for the *Laurea Specialistica* in Environmental Engineering at PoliMI (Como campus)
- 2007/08 *Analisi dei sistemi ambientali*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (CR campus)
- 2006/07 *Elementi di Ecologia ed Analisi dei sistemi ambientali*, 10 CFU for the *Laurea* in Environmental Engineering at PoliMI (CR campus)
- 2006/07 *Ecologia 2 (IAT Como)*, 5 CFU for the *Laurea Specialistica* in Environmental Engineering at PoliMI (Como campus)
- 2006/07 *Ecologia 1*, 5 CFU for the *Laurea Specialistica* in Environmental Engineering at PoliMI (Como campus)
- 2005/06 *Elementi di Ecologia ed Analisi dei sistemi ambientali*, 10 CFU for the *Laurea* in Environmental Engineering at PoliMI (CR campus)
- 2005/06 *Ecologia 2 (IAT Como)*, 5 CFU for the *Laurea Specialistica* in Environmental Engineering at PoliMI (Como campus)
- 2005/06 *Ecologia 1*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (Como campus)
- 2004/2005 *Modellistica e Simulazione 1*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (CR campus)
- 2004/2005 *Ecologia Applicata (V.I.A.)*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (Como campus)
- 2004/05 *Ecologia 2 (IAT Como)*, 5 CFU for the *Laurea Specialistica* in Environmental Engineering at PoliMI (Como campus)
- 2003/2004 *Modellistica e Simulazione 1*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (CR campus)
- 2003/2004 *Ecologia Applicata (IAT Como)*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (Como campus)
- 2002/2003 *Fondamenti di Automatica (per il Settore dell'Informazione)*, 10 CFU for the *Laurea* in Engineering for Computing Systems at PoliMI (Como campus)
- 2002/2003 *Ecologia Applicata (IAT Como)*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (Como campus)
- 2001/2002 *Ecologia Applicata (IAT Como)*, 5 CFU for the *Laurea* in Environmental Engineering at PoliMI (Como campus)
- 2000/2001 *Teoria dei Sistemi*, 10 CFU for the *Laurea* in Electronic Engineering at the [Università degli Studi di Parma](#)

PhD and other academic advanced courses

- 2010 - now Lecturer in the biannual course [Analysis of Complex Networks: Structure and Dynamics](#) at DEIB, PoliMI
- 2006 - 2010 Lecturer and coordinator (with Sergio Rinaldi) of the annual course *The Art of Modelling* at the [Alta Scuola Politecnica](#), PoliMI & PoliTO
- 2009 - now Lecturer in the annual courses "Global Change and Sustainability" at the [Alta Scuola Politecnica](#), PoliMI & PoliTO
- 2002/03 - now Lecturer and coordinator (with Marino Gatto) of the bi(-tri)annual PhD course [Spatial dynamics in Biology](#), Doctoral Program at PoliMI
- 2000/01 - 10/11 Lecturer in the biannual PhD course "Elements of Nonlinear Dynamics: Stability, Bifurcations and Chaos" organized by the [Italian Society of Chaos & Complexity](#) and offered to PhD students, Doctoral Program at PoliMI
- 2002/03 - now Lecturer in the triannual PhD course [Analysis of Paradigmatic Models in Social Sciences](#), Doctoral Program at PoliMI
- 2002/03 & 04/05 Lecturer and organizer of the course "Introduction to population ecology" (16h) in a Master on Ecopathology of Wildlife (coordinator: Paolo Lanfranchi), Faculty of Veterinary Science, Università degli Studi di Milano.

Publications

Books

- [L1] **Casagranti, R.**, De Leo G. A., and Gatto M. (2002). **101 Problemi di Ecologia**, con CDROM. McGrawHill. ISBN: 88 386 6041-7.

Edited volumes

- [L2] **Casagranti, R.** and Melià P. eds. (2004). **Ecologia. Atti del XIII Congresso Nazionale della Società Italiana di Ecologia (Como, 8-10 Settembre 2003)**, con CDROM. Aracne Editrice. ISBN: 88-7999-767-X, ISSN: 1127-5006.

Journal articles

- [A55] Jahnke M., Casagranti R., Melià P., Schiavina M., Schultz S. T., Zane L., Procaccini G. (2017) Potential and realized connectivity of the seagrass *Posidonia oceanica* and their implication for conservation (2017) *Diversity and Distributions*, **23**: 1423. doi: [10.1111/ddi.12633](https://doi.org/10.1111/ddi.12633)
- [A54] Mari L., Casagranti R., Rinaldo A., Gatto M. (2017) A generalized definition of reactivity for ecological systems and the problem of transient species dynamics. *Methods in Ecology and Evolution*, **8**: 1574. doi: [10.1111/2041-210X.12805](https://doi.org/10.1111/2041-210X.12805)
- [A53] Ciddio M., Mari L., Sokolow S. H., De Leo G. A., Casagranti R., Gatto M. (2017) The spatial spread of schistosomiasis: A multidimensional network model applied to Saint-Louis region, Senegal. *Advances in Water Resources*, **108**: 406. doi: [10.1016/j.advwatres.2016.10.012](https://doi.org/10.1016/j.advwatres.2016.10.012)
- [A52] Mari L., Ciddio M., Casagranti R., Perez-Saez J., Bertuzzo E., Rinaldo A., Sokolow S. H., De Leo G. A., Gatto M. (2017) Heterogeneity in schistosomiasis transmission dynamics. *Journal of Theoretical Biology*, **432**: 87. doi: [10.1016/j.jtbi.2017.08.015](https://doi.org/10.1016/j.jtbi.2017.08.015)
- [A51] Mari L., Bonaventura L., Storto A., Melià P., Gatto M., Masina S. and Casagranti R. (2017) Understanding large-scale, long-term larval connectivity patterns: The case of the Northern Line Islands in the Central Pacific Ocean. *PLoS ONE*, **12**: e0182681. doi: [10.1371/journal.pone.0182681](https://doi.org/10.1371/journal.pone.0182681).
- [A50] Mari L., Gatto M., Ciddio M., Dia E. D., Sokolow S. H., De Leo, G. A. and Casagranti R. (2017) Big-data-driven modeling unveils country-wide drivers of endemic schistosomiasis. *Scientific Reports*, **7**: 489. doi: [10.1038/s41598-017-00493-1](https://doi.org/10.1038/s41598-017-00493-1).
- [A49] Paterno M., Schiavina M., Aglieri G., Ben Souissi J., Boscari E., Casagranti R., Chassanite A., Chiantore M., Congiu L., Guarnieri G., Kruschel C., Macic V., and Marino I. A. M., Papetti C., Patarnello T., Zane L. and Melià P. (2017) Population genomics meet Lagrangian simulations: Oceanographic patterns and long larval duration ensure connectivity among *Paracentrotus lividus* populations in the Adriatic and Ionian seas. *Ecology and Evolution*, **7**: 2463. doi: [10.1002/ece3.2844](https://doi.org/10.1002/ece3.2844).
- [A48] White T. D., Carlisle A. B., Kroodsmas D. A., Block B. A., Casagranti R., De Leo G. A., Gatto M., Micheli F., and McCauley D. J. (2017) Assessing the effectiveness of a large marine protected area for reef shark conservation. *Biological Conservation*, **207**: 64. doi: [10.1016/j.biocon.2017.01.009](https://doi.org/10.1016/j.biocon.2017.01.009)
- [A47] Melià P., Schiavina M., Rossetto M., Gatto M., Frascchetti S. and Casagranti R. (2016) Looking for hotspots of marine metacommunity connectivity: a methodological framework. *Scientific Reports*,

6: 23705. doi: [10.1038/srep23705](https://doi.org/10.1038/srep23705)

- [A46] Perez-Saez J., Mari L., Bertuzzo E., Casagrandi R., Sokolow S.H., De Leo G.A., Mande T., Ceperley N., Froehlich J.-M., Sou M., Karambiri H., Yacouba H., Maiga A., Gatto M., Rinaldo A. (2015) A Theoretical Analysis of the Geography of Schistosomiasis in Burkina Faso Highlights the Roles of Human Mobility and Water Resources Development in Disease Transmission. *PLoS Neglected Tropical Diseases*, **9**: e0004127. doi: [10.1371/journal.pntd.0004127](https://doi.org/10.1371/journal.pntd.0004127).
- [A45] Ciddio M., Mari L., Gatto M., Rinaldo A., Casagrandi R. (2015) The temporal patterns of disease severity and prevalence in schistosomiasis. *Chaos*, **25**: 36405. doi: [10.1063/1.4908202](https://doi.org/10.1063/1.4908202).
- [A44] Piccardi C., Colombo A., Casagrandi R. (2015) Connectivity interplays with age in shaping contagion over networks with vital dynamics. *Physical Review E - Statistical, Nonlinear, and Soft Matter Physics*, **91**:022809. doi: [10.1103/PhysRevE.91.022809](https://doi.org/10.1103/PhysRevE.91.022809).
- [A43] Mari L., Bertuzzo E., Finger F., Casagrandi R., Gatto M., Rinaldo A. (2015) On the predictive ability of mechanistic models for the Haitian cholera epidemic. *Journal of the Royal Society Interface*, **12**:20140840. doi: [10.1098/rsif.2014.0840](https://doi.org/10.1098/rsif.2014.0840).
- [A42] Righetto L., Zaman R.U., Mahmud Z.H., Bertuzzo E., Mari L., Casagrandi R., Gatto M., Islam S., Rinaldo A. (2015) Detection of *Vibrio cholerae* O1 and O139 in environmental waters of rural Bangladesh: A flow-cytometry-based field trial. *Epidemiology and Infection*, **143**: 2330-2342. doi: [10.1017/S0950268814003252](https://doi.org/10.1017/S0950268814003252).
- [A41] Mari L., Casagrandi R., Bertuzzo E., Rinaldo A., Gatto M. (2014) Metapopulation persistence and species spread in river networks. *Ecology Letters*, **17**: 426-434. doi: [10.1111/ele.12242](https://doi.org/10.1111/ele.12242).
- [A40] Mari L., Casagrandi R., Bertuzzo E., Rinaldo A., Gatto M. (2014) Floquet theory for seasonal environmental forcing of spatially explicit waterborne epidemics. *Theoretical Ecology*, **7**: 351-365. doi: [10.1007/s12080-014-0223-y](https://doi.org/10.1007/s12080-014-0223-y).
- [A39] Gatto M., Mari L., Bertuzzo E., Casagrandi R., Righetto L., Rodriguez-Iturbe I., Rinaldo A. (2013) Spatially explicit conditions for waterborne pathogen invasion. *American Naturalist*, **182**: 328-346. doi: [10.1086/671258](https://doi.org/10.1086/671258).
- [A38] Righetto L., Bertuzzo E., Mari L., Schild E., Casagrandi R., Gatto M., Rodriguez-Iturbe I., Rinaldo A. (2013) Rainfall mediations in the spreading of epidemic cholera. *Advances in Water Resources*, **60**: 34-46. doi: [10.1016/j.advwatres.2013.07.006](https://doi.org/10.1016/j.advwatres.2013.07.006).
- [A37] Melià P., Schiavina M., Gatto M., Bonaventura L., Masina S., Casagrandi R. (2013) Integrating field data into individual-based models of the migration of European eel larvae. *Marine Ecology Progress Series*, **487**: 135-149. doi: [10.3354/meps10368](https://doi.org/10.3354/meps10368).
- [A36] Gatto M., Mari L., Bertuzzo E., Casagrandi R., Righetto L., Rodriguez-Iturbe I., Rinaldo A. (2012) Generalized reproduction numbers and the prediction of patterns in waterborne disease. *Proceedings of the National Academy of Sciences of the United States of America*, **109**: 19703-19708. doi: [10.1073/pnas.1217567109](https://doi.org/10.1073/pnas.1217567109).

- [A35] Mari L., Bertuzzo E., Righetto L., Casagrandi R., Gatto M., Rodriguez-Iturbe I., Rinaldo A. (2012) On the role of human mobility in the spread of cholera epidemics: Towards an epidemiological movement ecology. *Ecohydrology*, **5**: 531-540. doi: [10.1002/eco.262](https://doi.org/10.1002/eco.262).
- [A34] Mignatti A., Casagrandi R., Provenzale A., Von Hardenberg A., Gatto M. (2012) Sex- and age-structured models for Alpine ibex *Capra ibex ibex* population dynamics. *Wildlife Biology*, **18**: 318-332. doi: [10.2981/11-084](https://doi.org/10.2981/11-084).
- [A33] Rinaldo A., Bertuzzo E., Mari L., Righetto L., Blokesch M., Gatto M., Casagrandi R., Murray M., Vesenbeckh S.M., Rodriguez-Iturbe I. (2012) Reassessment of the 2010-2011 Haiti cholera outbreak and rainfall-driven multiseason projections. *Proceedings of the National Academy of Sciences of the United States of America*, **109**: 6602-6607. doi: [10.1073/pnas.1203333109](https://doi.org/10.1073/pnas.1203333109).
- [A32] Bertuzzo E., Mari L., Righetto L., Gatto M., Casagrandi R., Rodriguez-Iturbe I., Rinaldo A. (2012) Hydroclimatology of dual-peak annual cholera incidence: Insights from a spatially explicit model. *Geophysical Research Letters*, **39**:2011GL050723. doi: [10.1029/2011GL050723](https://doi.org/10.1029/2011GL050723).
- [A31] Righetto L., Casagrandi R., Bertuzzo E., Mari L., Gatto M., Rodriguez-Iturbe I., Rinaldo A. (2012) The role of aquatic reservoir fluctuations in long-term cholera patterns. *Epidemics*, **4**: 33-42. doi: [10.1016/j.epidem.2011.11.002](https://doi.org/10.1016/j.epidem.2011.11.002).
- [A30] Mari L., Bertuzzo E., Righetto L., Casagrandi R., Gatto M., Rodriguez-Iturbe I., Rinaldo A. (2012) Modelling cholera epidemics: The role of waterways, human mobility and sanitation. *Journal of the Royal Society Interface*, **9**: 376-388. doi: [10.1098/rsif.2011.0304](https://doi.org/10.1098/rsif.2011.0304).
- [A29] Rinaldo A., Blokesch M., Bertuzzo E., Mari L., Righetto L., Murray M., Gatto M., Casagrandi R., Rodriguez-Iturbe I. (2011) A transmission model of the 2010 cholera epidemic in Haiti. *Annals of Internal Medicine*, **155**: 403-404. doi: [10.7326/0003-4819-155-6-201109200-00018](https://doi.org/10.7326/0003-4819-155-6-201109200-00018).
- [A28] Mari L., Bertuzzo E., Casagrandi R., Gatto M., Levin S.A., Rodriguez-Iturbe I., Rinaldo A. (2011) Hydrologic controls and anthropogenic drivers of the zebra mussel invasion of the Mississippi-Missouri river system. *Water Resources Research*, **47**:W03523. doi: [10.1029/2010WR009920](https://doi.org/10.1029/2010WR009920).
- [A27] Bertuzzo E., Mari L., Righetto L., Gatto M., Casagrandi R., Blokesch M., Rodriguez-Iturbe I., Rinaldo A. (2011) Prediction of the spatial evolution and effects of control measures for the unfolding Haiti cholera outbreak. *Geophysical Research Letters*, **38**: -. doi: [10.1029/2011GL046823](https://doi.org/10.1029/2011GL046823).
- [A26] Righetto L., Bertuzzo E., Casagrandi R., Gatto M., Rodriguez-Iturbe I., Rinaldo A. (2011) Modelling human movement in cholera spreading along fluvial systems. *Ecohydrology*, **4**: 49-55. doi: [10.1002/eco.122](https://doi.org/10.1002/eco.122).
- [A25] Bertuzzo E., Casagrandi R., Gatto M., Rodriguez-Iturbe I., Rinaldo A. (2010) On spatially explicit models of cholera epidemics. *Journal of the Royal Society Interface*, **7**: 321-333. doi: [10.1098/rsif.2009.0204](https://doi.org/10.1098/rsif.2009.0204).
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