ANDREA RINALDO (Venice, September 13, 1954)
Emeritus Professor, École Polytechnique Fédérale de Lausanne and
Università di Padova. Formerly Professor of Hydrology & Water Resources and Director, Laboratory of Ecohydrology[1], École Polytechnique Fédérale Lausanne (CH) and Ordinario di Costruzioni idrauliche nell'Università di Padova (IT)

EDUCATION/HONORARY DEGREES

Laurea (BS+MS)	1978	Università di Padova, (IT) 110/110 *summa cum laude* (Civil Engineering)
Ph.D.	1983	Purdue University, West Lafayette (US) (Fluid Mechanics)
PhD honoris causa	2014	Université du Québec-Laval & INRS (CA)
Degree honoris causa	2024	Università di Trento (IT) (Environmental Engineering)

ACADEMIC RECORD

ASSISTANT PROFESSOR, Università di Padova (1984-1986)
FULL PROFESSOR, Italian Academic System, (1985-)
PROFESSOR OF HYDRAULIC CONSTRUCTIONS, Dipartimento di Ingegneria Civile e Ambientale, *Università di Trento* (IT) (1986-1992)
Department Head, Dipartimento di Ingegneria Civile e Ambientale, *Università di Trento* (1988-1992)
PROFESSOR OF CIVIL & ENVIRONMENTAL ENGINEERING, Dipartimento di Ingegneria Civile e Ambientale, *Università di Padova* (IT) (1992-2024)
Director, Istituto di Idraulica "*Giovanni Poleni*", Università di Padova (1994-2000)
VISITING PROFESSOR & RESEARCH ASSOCIATE, Ralph M. Parsons Laboratory, Dept of Civil & Environmental Engineering, *Massachusetts Institute of Technology* (US) (1993–2001)
VISITING PROFESSOR, Dept of Civil & Environmental Engineering, *Princeton University* (US) (2004-2007)
PROFESSOR OF HYDROLOGY & WATER RESOURCES, and DIRECTOR, Laboratory of Ecohydrology (ECHO/IIE/ENAC), *École Polytechnique Fédérale Lausanne* (2008-2024)
Director, Institute of Environmental Engineering, *Ecole Polytechnique Fédérale Lausanne* (2010-2014, 2022-2023)
SENIOR ADJUNCT RESEARCHER, EAWAG, Dübendorf (CH) (2011-2017)
FACULTY FELLOW, Hagler Institute for Advanced Studies, Texas A&M University (2018-2022)
INAUGURAL NEIL ARMSTRONG DISTINGUISHED VISITING FELLOW, Purdue University (2019-2022)
DECANO, Università di Padova (longest-serving full professor), 2023-2024)

AWARDS/RECOGNITION

International Prizes/ Awards: (excerpts)
MUNSON AWARD, Purdue University (1982)
GATTO AWARD, Accademia Nazionale dei Lincei, Rome (1984)
HYDROLOGICAL SCIENCES AWARD, American Geophysical Union (1999)
FELLOW, American Geophysical Union (2000)
DALTON MEDAL, European Geosciences Union (2005)
ERC ADVANCED GRANT FELLOWSHIP (2008)
BORLAND & HYDROLOGY DAYS AWARD, Colorado State University (2010)
4TH PRINCE SULTAN ABDULAZIZ INTERNATIONAL WATER PRIZE, Riyadh (2010)
LUIGI TARTUFARI INTERNATIONAL PRIZE, Geosciences, Accademia Nazionale dei Lincei, Rome (2014)
DISTINGUISHED SCHOLAR MEDAL, Am. Soc. Agricultural & Biological Engineering, New Orleans (2015)
FACULTY FELLOW, Hagler Institute for Advanced Studies, Texas A&M University, (2018-2022)
INAUGURAL NEIL ARMSTRONG DISTINGUISHED VISITING FELLOW, Purdue University, (2019-2021)
DISTINGUISHED ENGINEERING ALUMNUS AWARD, Purdue University (2021)
PREMIO MASI (INTERNATIONAL PRIZE), Verona, 2023
HORTON MEDAL, American Geophysical Union (2023)
THE STOCKHOLM WATER PRIZE (2023)

[1] Lab web site: http://echo/epfl

Academy Memberships (excerpts):

National

Fellow, ISTITUTO VENETO DI SCIENZE LETTERE ED ARTI, Venice (1995) (IVSLA Board, 2007-), President (2021-)
Fellow, ACCADEMIA GALILEIANA DI SCIENZE, LETTERE ED ARTI, Padova (1999)
Fellow, ACCADEMIA DEI CONCORDI, Rovigo (2000)
Fellow, ACCADEMIA NAZIONALE DELLE SCIENZE (detta dei XL), Rome (2014) (XL Board, 2017-2020)
Fellow, ACCADEMIA NAZIONALE DEI GEORGOFILI, Florence (2016)
Fellow, ACCADEMIA NAZIONALE DEI LINCEI, Rome (2019)
Fellow, honorary, ACCADEMIA OLIMPICA, Vicenza (2024)

International

Fellow, THE WATER ACADEMY, Oslo (1999)
International Member, ROYAL SWEDISH ACADEMY OF SCIENCES, Stockholm (2006)
International Member, US NATIONAL ACADEMY OF ENGINEERING, Washington (2006)
International Member, US NATIONAL ACADEMY OF SCIENCES, Washington (2012)
Foreign Associate, AMERICAN ACADEMY OF ARTS AND SCIENCES, Cambridge (2018)

MENTORING

ANDREA RINALDO supervised and mentored >80 MS students, 42 PhD students and 22 postdocs. Former mentees holding Faculty positions are: Alberto Bellin (Univ Trento); Paolo Salandin (Univ Padova), Virginio Fiorotto (Univ Trueste), Marco Marani (Duke University, Univ Padova), Riccardo Rigon (Univ Trento), Paolo D'Odorico (Univ California Berkeley), Aldo Fiori (Univ Roma 3), Roman Stocker (ETH Zürich), Achille Giacometti (Univ Cà Foscari Venice), Marilena Pannone (Univ Basilicata), Sergio Fagherazzi (Boston Univ), Lorenzo Mari (Milan Polytechnic), Gianluca Botter (Univ Padova), Andrea D'Alpaos (Univ Padova), Enrico Bertuzzo (Univ Cà Foscari Venice), Samir Suweis (Univ Padova), Andrea Giometto (Cornell Univ), Bettina Schäfli (Univ Bern), Luca Carraro (Univ Zurich), Paolo Benettin (Univ Lausanne), Joseph Benoit Chadi Lemaitre (Univ North Carolina)

KEYNOTE (K) & NAME (N) LECTURES (excerpts)

(N) THE DALTON LECTURE, Wien (2005); (N) THE KOVACS LECTURE, Paris (2006); (N) THE MOORE LECTURE, Charlottesville (2007); (N) THE CARL GUSTAV BERNHARD LECTURE, Royal Swedish Academy of Sciences (2007); (N) THE BOUSSINESQ LECTURE, Amsterdam (2008); (N) THE BORLAND LECTURE, Fort Collins (2010); (K) THE PRINCE ABDULAZIZ WATER LECTURE, Riyadh (2010); (K) 200TH ANNIVERSARY LECTIO MAGISTRALIS, Istituto Veneto di Scienze Lettere ed Arti, Venice (2011); (N) THE WATER INSTITUTE DISTINGUISHED SCHOLAR LECTURE, Gainesville (2012); (K) 418TH ANNIVERSARY LECTIO MAGISTRALIS, Accademia dei Concordi (2013); (K) International Conference RIVERFLOW, Lausanne (2014); AGU CHAPMAN CONFERENCE on *Catchment spatial organization and complex behavior*, Luxembourg (2014); (K) DISTINGUISHED SCHOLAR LECTURE, American Society of Biological and Agricultural Engineering, New Orleans (2015); (K) the HONORIS CAUSA DOCTORATE LECTURE, INRS, Québec City (2014); (K) International IRTG Conference *Integrated Hydrosystem Modelling*, Tübingen (2015); (K) International Workshop on *Living systems: from interaction patterns to critical behavior,* Venice International University (2016); (K) IECID 2017 *Impact of Environmental Changes on Infectious Diseases,* ICTP Trieste (2017); (N) HAGLER DISTINGUISHED SCHOLAR Lecture, Texas A&M University, College Station (2018); (K) IAHR General Congress, Trento (2018); (N) NEIL ARMSTRONG DISTINGUISHED SCHOLAR Lecture, Purdue University, West Lafayette (2019); DISTINGUISHED LECTURER SERIES, University of Utrecht (2021); DISTINGUISHED LECTURE, Purdue University (2021); DISTINGUISHED LECTURE SERIES Global Institute for Water Security, Saskatchewan (2021); (K) International conference *Current issues in climate research* (Lincei, Rome, 2021); *CERN Colloquia*, Geneva (2022); (K) *Ignacio Rodriguez-Iturbe Memorial Symposium*, Texas A&M, College Station (2022); (K) *Symposium honoring Prof. Gedeon Dagan on the occasion of his 90th Birthday*, Israeli Academy of Sciences and Humanities, Jerusalem (2023); (K) ENAC distinguished Lecture, Lausanne (2023); (K) AQVA (closure of celebrations for the 800th year), University of Padua (2023); (K) *Lectio Magistralis* celebrating the award of the 2023 STOCKHOLM WATER PRIZE: University of Padua, EPFL, Montecitorio (Italian Parliament), Rome (2023) (plus ~45 speaking engagements during 2023 related to the award of the 2023 STOCKHOLM WATER PRIZE in Italy, Switzerland, Sweden, France, United States since the announcement on March 21)
The EPS COLLOQUIUM, Harvard University (2024);
S.T. LEE LECTURE, Institute for Advanced Studies at Princeton (2024)
(K) *Blue Planet solutions International Conference*, Royal Swedish Academy of Sciences, Stockholm (2024);
The EZRA SYSTEMS SEMINAR, Cornell University (2024)
THE 2025 LINNAEUS LECTURE, Uppsala

Invited presentations also include: i) Ted^{x}Talks, and ii) ~50 invited talks/year).

ORGANISATION OF INTERNATIONAL CONFERENCES (excerpts)

Convener: Several sessions at AGU and EGU (Ecohydrology, Nonlinear dynamics, Catchment scale transport) (1992-2012) Summer Schools on *Environmental Dynamics*, Istituto Veneto di Scienze, Lettere ed Arti, Venice, Italy, among which: *Pathways to Environmental Sustainability* (2008) *Climate Forcings and Global Patterns* (2009), *Global Biogeochemical Cycles* (2012), *Discounting and evaluating environmental policies* (2014), *Climate Science* (2022). *Latsis Symposium* on *Ecohydrology*, EPFL (2011) (with Marc B. Parlange); Monte Verità Symposium *Thirty years of Groundwater Hydrology*, 2011; *Colloquio Linceo on Ecohydrology* (2020) (with G. Seminara). *World Water Day Conference* (2001, 2002, 2003, 2004), *World Environment day* (2003, 2004), Accademia Nazionale dei Lincei, Rome.

Co-convener of several sessions at AGU and EGU annual meetings throughout the years.

OTHER TASKS (excerpts)

Science

Director, Doctoral School of *Civil & Environmental Engineering Sciences*, Università di Padova (Italy) (1999-2007); several Chair Committee Member, Italian Ministry for University and Research (MIUR) (1986-2007); EPFL Academic Promotions Committee (2009-2011); ENAC Academic Promotions Committee, EPFL (2011-, as Chairman 2011-2014); Fondazione CMCC, Senior Fellow (2025-).

PhD Committees (besides own Institutions): Massachusetts Institute of Technology, Wageningen Agricultural University, KTH Stockholm, University of Stockholm, Princeton University, University of Sidney, ETHZ.

International Scientific Committees (excerpts): *SENSE Environmental Sciences* Review Committee (NL) (2008), *CCES* Steering Board, ETHZ (CH) (2008-2020); Scientific Advisory Board, *Helmholtz-Zentrum für Umweltforschung* (UFZ), Leipzig (GE) (2011-2014); Scientific Advisory Board, Università Cà Foscari Venice (IT) (2014-); Comitato Ambiente, Accademia Nazionale dei Lincei (2012-).

Award and Medal Committees: *Gatto* Award, Accademia dei Lincei (2004-2014, 2024-); AGU *Hydrological Sciences Aaward* (2003-2005) (as Chairman, 2005); AGU *Horton Medal* (2004-2006); EGU *Dalton Medal* (2005-2007); AGU *Fellows* Union Committee (2005-2011); *Sackler Prize Committee,* US National Academy of Sciences (2018); *Matteucci Medal* Committee, Accademia dei XL (2018-2021); *Datei Medal* Committee, as Chairman (2012-); AGU *Simpson Medal* Committee (2022-).

Editorial Boards: *Advances in Water Resources* (1994-2004)*; Water Resources Research* (2001-2013)*; Rendiconti Lincei* (*Mathematical and Physical Sciences)* (2010-); *Proceedings of the US National Academy of Sciences* (2008-).

Editor: *Advances in Water Resources* (2011-2015); *Proceedings of the US National Academy of Sciences* (2014-2024)

Society

Board member: *Istituto Veneto di Scienze, Lettere ed Arti*, Venezia (1999-); FIR *Federazione Italiana Rugby*, Roma (2002-2012); *European Professional Club Rugby*, Lausanne (2001-2024); *Accademia Nazionale delle Scienze detta dei XV*, Roma (2010-2016); *Acciaierie Venete*, Padova (2010-); *Amici della Musica*, Padova (2016-2020); FAI *Fondo per l'Ambiente Italiano*, Milano (2023-); *Alma Dal Co Foundation*, Lausanne-Venice (2023-).

Scientific Advisory Boards: *Autorità di Bacino dell'Alto Adriatico* (1988-1992); *CCES Steering Board*, ETHZ, Zürich (2008-2020); *Università Ca' Foscari di Venezia* (2010-); *Venice World Sustainability Capital Foundation*, Venezia (2022-); *Dipartimento Scienze del Sistema Terra e Tecnologie per l'Ambiente*, Consiglio Nazionale delle Ricerche, Roma (2018-); International Advisory Committee, *International Year of Basic Sciences for Sustainable Development,* UNESCO (2022-2023); EASAC *European Academy Science Advisory Council*, (2015, 2022-)

SIGNIFICANT RESEARCH PROJECTS

The bulk of the scientific finding came from projects funded (as PI) by the *European Union* and the *Swiss National Funds*. In particular: 1) ERC Advanced Grant RINEC 22761 (2009-2014); SNF 200021_172578/1 *Optimal control of intervention strategies for waterborne disease epidemics* (2016-2022); SNF SINERGIA CRSII5_186422 / 1: *Linking statistical physics, bioengineering, hydrology and fluid mechanics with metabolic theories of ecology across microbial ecosystems: theory and high-throughput experiments* (2019-2023)

IN THE NEWS (excerpts)

See list of press releases in: https://www.epfl.ch/labs/echo/

A Profile of Andrea Rinaldo (Gabrielsen, P., *Proceedings of the US National Academy of Sciences*, 111(11), 3900-3902, 2014)
https://www.pnas.org/content/111/11/3900

Interviews and public Lectures:

http://abouthydrology.blogspot.com/2014/05/acceptance-speech-given-by-andrea.html
https://www.youtube.com/watch?v=z3jJjIbP7uE
TedX Talk https://www.youtube.com/embed/DR6fh8J2pJM?autoplay=1&cc_load_policy=1&cc_lang_pref=it

SCIENTIFIC ACHIEVEMENTS

Author of four monographs and more than 330 papers in peer-reviewed scientific journals, ~30,000 citations with *h*-index=103 and *i10*-index 258 (since 2019 *h*-index 57 and *i10*-index 210)[2]. Andrea Rinaldo has coauthored, with Ignacio Rodriguez-Iturbe, the research monograph *Fractal River basins. Chance and Self-Organization* (published in its 2nd edition by Cambridge University Press in 2001, see **1.** below), considered the standard reference of its field[3]. The recently published book *River networks as ecological corridors. Species, populations, pathogens*, published by Cambridge University Press in 2020 (see **6.** below, coauthored with M. Gatto and I. Rodriguez-Iturbe) is a coherent follow-up that capitalizes on the insight gained on nature's making of rivers as substrates for ecological interactions. The underlying research has been carried out mostly in his ECHO Lab at EPFL in the past 15 years. The book won the PROSE Award for the Environmental Science category for books appeared in 2020 by the Association of American Publishers (2021).

Overall, he authored 53 papers published in major general science journals (*Nature*, *Science* and *PNAS), 67* including parent journals (*Nature Communications, Nature Sustainability, Nature Waetr, Nature Physics, Scientific Reports*). Among recognitions[4], his election to the US National Academy of Sciences in the class of *Environmental Sciences and Ecology* (Section 63), and to the Accademia Nazionale dei Lincei in Italy (class: *Appplications of mathematics*) jointly with the awarding of the 2023 Stockholm Water Prize, are his most coveted ones.

Field, laboratory and theoretical work in the general field of water controls on biota is carried out at his *Laboratory of Ecohydrology* (known as the ECHO Lab), established in 2008 at EPFL and built around a single-recipient 5-year *ERC Advanced Grant* (2009). Experimental work in the wet Lab at EPFL has been ongoing for more than 10 years now, and has had a high impact on the field of water borne diseases (see e.g. **7.** below). Rinaldo's Lab also carried out significant field work in Haiti, Bangladesh, Burkina Faso and in various catchments in Switzerland. His work has been recognized[5] to have contributed substantially to our understanding of the function of river networks as ecological corridors. This function is relevant to a number of key ecological processes that control the spatial ecology of species and biodiversity in the river basin, the population dynamics and biological invasions along waterways, and the spread of waterborne disease. As examples, one counts metapopulation persistence in fluvial ecosystems, metacommunity predictions of fish diversity patterns in large river basins, geomorphic controls imposed by the fluvial landscape on elevational gradients of species' richness, zebra mussel invasions of iconic river networks, and the spread of proliferative kidney disease in salmonid fish; or of devastating chronic (schistosomiasis) or epidemic (cholera) infections in human communities. Theoretical contributions posit that ecological processes in the fluvial landscape are so constrained by hydrology and by the matrix for ecological interactions (the directional dispersal embedded in fluvial and host/pathogen mobility networks), that predictability by spatially-explicit approaches is warranted. Accounting for these drivers required spatial descriptions that have now produced a broad range of results illustrating the predictive power of the methods and the coherent conceptual framework that produced them. Hard-gained experimental and field work supported the theoretical idea. In the process, Andrea Rinaldo proved one of the main contributors to establishing Ecohydrology as a new and now mainstream science. Quite possibly, his Laboratory of Ecohydrology at EPFL was the first of its kind (2008), whereas currently there exist several of them worldwide. The overarching theme of Andrea Rinaldo's work is the investigation on how the physical structure of the hydrologic environments affects biodiversity, species invasions, and waterborne disease spread by embedding the relevant ecology into the core geoscience of river networks. The relation with the geosciences (the study of the form fluvial ecosystems) is explored from the perspective of ecosystems produced by fluvial processes and forms. In the case of the ecosystem services provided by the river basin, his work showed that time is ripe for retooling our decision-making basis. The ECHO Lab work also significantly contributed to COVID-19 research (see e.g. **8.**). This happened serendipitously, owing to the expertise

[2] Source *Google Scholar* (http://scholar.google.ch/citations?user=27F9Y3cAAAAJ&hl=it&oi=ao). Statistics as of January 13, 2023.

[3] see http://psipw.org/index.php?option=com_content&view=article&id=389&Itemid=225&lang=en

[4] A summary of AR's achievements is in P. GABRIELSEN, A profile of Andrea Rinaldo, *PNAS*, 111, 3900, 2014.

[5] See https://www.google.com/search?client=firefox-b-d&q=2023+Srockholm+Water+Prize+announcemnt#fpstate=ive&vld=cid:62dfd88d,vid:ZE-QKNvR2uw

developed on spatially-explicit mathematical models of infectious waterborne and water-based disease spread (in particular epidemic cholera and endemic schistosomiasis, e.g. publication **6.**), acquired in the study of waterborne and water-based disease studies which is central to contemporary Ecohydrology.

TEN SIGNIFICANT PUBLICATIONS

1. Rodriguez-Iturbe, I, A RINALDO, *Fractal River Basins. Chance and Self-Organization*, Cambridge University Press, New York, 2001 (2328 citations)

2. Banavar, JR, A Maritan, A RINALDO, Size and form in efficient transportation networks, *Nature*, 399, 130-133, 1999 (996 citations)

3. RINALDO A, W.E. Dietrich, R. Rigon, G.K. Vogel, I. Rodriguez-Iturbe, Geomorphological signatures of varying climate, *Nature*, 374 (6523), 632-635, 1995 (199 citations, Nature cover)

4. RINALDO, A, I Rodriguez-Iturbe, R Rigon, E Ijjasz-Vasquez, RL Bras, Self-organized fractal river networks, *Physical Review Letters*, 70(6), 822-825, 1993 (364 citations)

5. RINALDO, A., A. Marani, R. Rigon, Geomorphological Dispersion, *Water Resources Research*, 27(4), 513-525, 1991 (424 citations)

6. RINALDO, A., M. Gatto, I. Rodriguez-Iturbe, *River networks as ecological corridors. Species, populations, pathogens*, Cambridge University Press, New York, 2020 (*PROSE Award for the Environmental Science category from the Association of American Publishers 2021*) (143 citations)

7. Carrara, F., F. Altermatt, I. Rodriguez-Iturbe, A. RINALDO, Dendritic connectivity controls biodiversity patterns in experimental mtacommunities, *Proceedings of the US National Academy of Sciences*, 109, 5761-5766, 2012 (344 citations)

8. Gatto, M., E. Bertuzzo, L. Carraro, L. Mari, S. Miccoli, R. Casagrandi, A. RINALDO, Spread and dynamics of the COVID-19 epidemic in Italy: effects of emergency containment measures, *Proceedings of the US National Academy of Sciences*, 117(19), 10484-10491, 2020 (1193 citations, *WoS and Scopus Highly Cited Paper*)

9. Muneepeerakul, R., E. Bertuzzo, H.J. Lynch, W.F. Fagan, A. RINALDO, I. Rodriguez-Iturbe, Neutral metacommunity model predicts fish diversity patterns in Mississippi-Missouri river basin, *Nature*, 453, 220-229, 2008 (410 citations)

10. Banavar, J.R., J. Damuth, A., Maritan, A. RINALDO, Supply-demand balance and metabolic scaling, *Proceedings of the US National Academy of Sciences*, 99, 10506-10509, 2002 (283 citations)

ANDREA RINALDO

List of publications[6]

BOOKS

RINALDO, A., M. Gatto, I. Rodriguez-Iturbe, *River networks as ecological corridors. Species, populations, pathogens*. Cambridge University Press, New York, 2020 (PROSE Award for the Environmental Science category from the Association of American Publishers 2021)

RINALDO, A., *Del rugby. Verso una ecologia della pallaovale*, Marsilio, Venice, 2017 *(CONI special prize 2017)*

RINALDO, A., *Il governo dell'acqua. Ambiente naturale e Ambiente costruito*, Marsilio, Venice, 2009 (Final Five, Premio Galileo International Prize for Scientific Communication, 2009). Second Edition (2023)

Rodriguez-Iturbe, I., A. RINALDO, *Fractal river basins. Chance and self-organization*, Cambridge University Press, New York, 1997 (2001 2nd edition)

JOURNAL PAPERS

2024

[351] Botte E, Y Cui, C Magliaro, A RINALDO, *R Stocker,* L Berendt, AD Ahluwalia, Size-related variability of oxygen consumption rates in individual human hepatic cells*,* Lab on a chip*, 4128-4137. 24(17), 2024*

[350] Pasqualini J, S Facchin, A RINALDO, EV Savarino, S Azaele, A Maritan*,* SS Suweis, Emergent ecological patterns and modelling of gut microbiomes in health and in disease, ***PLoS Computational Biology***, e1012482, 20(9), 2024

[349] Padmanabha P, G Nicoletti, D Bernardi, S Suweis, S Azaele, A RINALDO, A Maritan, Landscape and environmental heterogeneity support coexistence in competitive metacommunities, *Proceedings of the US National Academy of Sciences,* in press, 2024

[348] Bassani, F, S Fatichi, A RINALDO, S Bonetti, Towards a metabolic theory of catchments: scaling of water and carbon fluxes with size, *Proceedings of the US National Academy of Sciences,* in press, 2024

[347] Trevisin, C, L Mari, M Gatto, A RINALDO, Epidemicity indices and reproduction numbers from infectious disease darra in connected human populations, *Infectious Disease Modeling*, in press, 2024

[346] Gao, C, ED Lazarus, A D'Alpaos , M Ghinassi, A Ielpi , G Parker, A RINALDO, P Gao, YP Wang, D Tognin A. Finotello, Morphometry of tidal meander cutoffs indicates similarity to fluvial morphodynamics, *Geophysical Research Letters*, 51, e2023GL105893, 2024

[345] Tognin, D, A D'Alpaos, L D'Alpaos, A RINALDO, L Carniello, Statistical characterization of erosion and sediment transport mechanics in shallow tidal environments. Part 2: Suspended sediment dynamics, *Eath Surface Dynamics*, 12, 201–218, 2024

[344] D'Alpaos, A, D Tognin, L Tommasini, L D'Alpaos, A RINALDO, L Carniello, Statistical characterization of erosion and sediment transport mechanics in shallow tidal environments. Part 1: Erosion dynamics, *Earth Surface Dynamics*. 12, 181–199, 2024

[343] Mari, L, E Bertuzzo, A RINALDO, M Gatto, R Casagrandi, Reactive persistence of riverine metapopulations, in review, 2024

[342] RINALDO, A, Ecohydrology amid a rapidly changing world, *Nature Water*, https://doi.org/10.1038/s44221-024-00205-w, 2024

[341] Trevisin, C, L Mari, M Gatto, A RINALDO, A spatially explicit model of the dynamics of *Opisthorchis viverrini* spread, *Ecohydrology*, in press, 2024

[340] Meggiorin, M, M Nuria Naranjo-Fernández, A Sottani, G Botter, A RINALDO, Data-driven optimization of a groundwater monitoring network, *Journal of Hydrology*, 631, 130667, 2024

[6] Entries taken from the *Web of Science* and *Google Scholar*. Total number of *Web of Science* entries: 340. Basic bibliometric indices, (as of January 2024): *h*-index = 103; i10-index=258, total citations=30,001. Total number of Papers in Proceedings, Book Chapters and Abstracts (unreported here) ~400. Author and coauthor of four edited books (also unreported here).

2023

[339] Bujak-Ozga, I, HJ Van Meerveld, A RINALDO, J von Freiberg, Short-term dynamics of drainage density based on a combination of channel flow state surveys and water level measurements, *Hydrological Processes*, 37, e15041, 2023

[338] Nicoletti, G., P Padmanabha, S Azaele, S Suweis, A RINALDO, A Maritan, Emergent encoding of dispersal network topologies in spatial metapopulation models, *Proceedings of the US National Academy of Sciences,* in press, 2023

[337] Trevisin, C, E Bertuzzo, D Pasetto, L Mari, S Miccoli, R Casagrandi, M Gatto, A. RINALDO, Spatially explicit effective reproduction numbers from incidence and mobility data, *Proceedings of the US National Academy of Sciences,* 120(20), e2219816120 , 2023

[336] Meggiorin, M, G Passadore, S Bertoldo, A Sottani, A. RINALDO, Comparison of three imputation methods for groundwater level time series, *Water*, *15*(4), 801, 2023

[335] Miele, F, P Benettin, S Wang, M Asadollahi, M Frütschi, R Bernier-Latmani, A. RINALDO, Spatially expliticit linkages between Redox potential cycles and soil moisture fluctuations, *Water Resources Research*, 59(3), e2022WR032328, 2023

2022

[334] Levin, SA, A. RINALDO, Ignacio Rodríguez-Iturbe (1942–2022): A review of a pathbreaking academic career combining chance and self-organization, *Proceedings of the US National Academy of Sciences* 119(49), e2217606119, 2021

[333] Benettin, P, Rodriguez, N. B., Sprenger, M., Kim, M., Klaus, J., Harman, C. J., van der Velde, Y., Hrachowitz, M., Botter, G., McGuire, K. J., Kirchner, J. W., RINALDO, A., McDonnell, J.J. Transit time estimation in catchments: Recent developments and future directions. *Water Resources Research*, *58*(11), 2022 [2022 WRR Editors' Choice Award]

[3\\32] Cheraghi, M, A. RINALDO, Sander, G.C., P. Perona, A. Cimatoribus, J. Seifeddine, D.A. Barry, Applicability of the landscale evolution model in the absence of rills, *Frontiers in Earth Science*, 10, 872711, 2022

[331] Lemaitre, JC, D. Pasetto, M. Zanon, E. Bertuzzo, L. Mari, S. Miccoli, R. Casagrandi, M. Gatto, A. RINALDO, Optimal control of the spatial allocation of COVID-19 vaccines: Italy as a case study, *PLoS Computational Biology*, 18(7), e1010237, 2022

[330] Bassi, R, G. Seminara, A. RINALDO, The intrusion of ecology into hydrology and morphodynamics, *Rendiconti Lincei*, 33(2), 213-216, 2022

[329] RINALDO, A, I. Rodriguez-Iturbe, Ecohydrology 2.0, *Rendiconti Lincei*, 33(2), 245-270, 2022

[328] Nehemi MF, P. Benettin, S. Allen, A. RINALDO, L.L. Lehmann, J.J. McDonnell, Phloem water isotopically different to xylem water: Potential causes and implications for ecohydrological tracing, *Ecohydrology*, 15(3), e2417, 2022

[327] Asadollahi, M, Nehemi M.F., J.J. McDonnell, A. RINALDO, P. Benettin, Toward a closure of catchment mass balance: Insight on the missing link from a vegetated lysimeter, *Water Resources Research*, 58, e202,WR030698, 2022

[326] Volkov, I., A. Tovo, A. Anfodillo, A. RINALDO, A. Maritan, J. Banavar, Seeing the forest for the trees through metabolic scaling, *PNAS Nexus*, 1(1), pgac008, 2022

[325] Trevisin, C., J.C. Lemaitre, L. Mari, R. Casagrandi, S. Miccoli, M. Gatto, A. RINALDO, Epidemicity of cholera spread and the fate of control measures , *Journal of the Royal Society Interface*, 19 (188), 20210844, 2022

[324] Bertassello, L.E., J,W, Jawitz, E. Bertuzzo, A. RINALDO, J.T. Hoverman, P.S.C. Rao, Persistence of amphibian metapopulation occupancy in dynamic wetlandscapes, *Landscape Ecology*, 37(3), 695-711, 2022

2021

[319] Mari, L., Casagrandi, R., Bertuzzo, E., Pasetto, D., Miccoli, S., RINALDO, A., & Gatto, M., The epidemicity index of recurrent SARS-CoV-2 infections. *Nature Communications*, 12(1) doi:10.1038/s41467-021-22878-7, 2021

[318] Benettin, P., M.F. Furlan, M. Asadollahi, D. Pratt, M. Bensimon, J.J. McDonnell, A. RINALDO, Tracing and closing the water balance in a vegetated lysimeter, *Water Resources Research*, 57(4), e2020WR029049, 2021

[317] Nehemy, M.F., P. Benettin, M. Asadollahi, D. Pratt, A. RINALDO, J.J. McDonnell, Tree deficit and dynamic source water partitioning, *Hydrological processes*, 35(1), e144004, 2021

[316] Meggiorin, M., G. Passadore, S. Bertoldo, A. Sottani, A. RINALDO, Assessing the long-term sustainability of the groundwater resources in the Bacchiglione basin (Veneto, Italy), *Italian Journal of Groundwater*, 10(1), 35--48, 2021

[315] Koçillari, L., M. Olson, S. Suweis, R. P. Rocha, A. Lovison, F. Cardin, T. Dawson, A. Echeverría, A. Fajardo, S. Lechthaler, C. Martínez-Pérez, C. R. Marcati, K-F Chung, J. A. Rosell, A. Segovia-Rivas, C. B. Williams, E. Petrone-Mendoza, A. RINALDO, T. Anfodillo, J.R. Banavar, A. Maritan, The widened pipe model of plant hydraulic evolution, *Proceedings of the US National Academy of Sciences*, 118(22), e2100314118 (1—8), 2021

[314] Mari, L., E. Bertuzzo, D. Pasetto, S. Miccoli, R. Casagrandi, A. RINALDO, M. Gatto, The epidemicity index of recurrent SARS-CoV-2 infections, *Nature Communications,* 12, 2752, 2021

[313] Pasetto, D., J.C. Lemaitre, E. Bertuzzo, M. Gatto, A. RINALDO, Range of reproduction number estimates for COVID-19 spread, *Biochemical and Biophysical Research Communications*, 538, 253-258, 2021

[312] Serafino, M., G. Cimini, A. Maritan, A. RINALDO, G. Caldarelli, True scale-free networks hidden by finite size effects, *Proceedings of the US National Academy of Sciences*, 118(2), e2013825118, 2021

[311] Bertassello, L., E. Bertuzzo, G. Botter, J.W. Jawitz, A.F. Aubenaud, J.T. Hoverman, A. RINALDO, P.S.C. Rao, Dynamic spatio-temporal patterns of metapopulation occupancy in patchy habitats, *Royal Society Open Science*, 8(1), 201039, 2021

[310] Rodriguez-Iturbe, I., Z.J. Chen, A. RINALDO, On the fractal structure of soil moisture fields, *Advances in Water Resources*, 147, 103926, 2021

[309] Li, L., P. Sullivan, P. Benettin, O. Cirpka, K. Bishop, S. Brantley, J.L.A. Knapp, I. van Meerveld, A. RINALDO, J. Seibert, H. Wen, J.W. Kirchner, Toward catchment hydro-biogeochemical theories, *Wiley Interdisciplinary Reviews – Water*, 8(1), e1495, 2021

2020

[308] Bertuzzo, E., L. Mari, D. Pasetto, S. Miccoli, R. Casagrandi, M. Gatto, A. RINALDO, The geography of COVID-19 spread in Italy and implications for the relaxation of confinement measures, *Nature Communications,* 11, 4264, 2020

[307] Seminara, G., B. Carli. S. Forni, A. Mazzino, S. Fuzzi, A. RINALDO, Biological fluid dynamics of airborne COVID-19 infection, *Rendiconti Lincei*, 31(4), 505-537, 2020

[306] Asadollahi, M., C. Stumpp, A. RINALDO, P. Benettin, Transport and water age dynamics in soils: A Comparative study of spatially integrated and spatially explicit models, *Water Resources Research*, 56, e2019WR025539 https://doi.org/10.1029/2019WR025539, 2020

[305] Carraro, L., E. Bertuzzo, E. Fronhofer, I. Gounand, A. RINALDO, F. Altermatt, Generation and application of river network analogues for use in ecology and evolution, *Ecology and Evolution*, 10(14), 7537-7550, 2020

[304] Lee, E.C., D.L. Chao, J.C. Lemaitre, L. Matrajt, D. Pasetto, J. Perez-Saez, F. Finger, A. RINALDO, J.D. Sugimoto, M.E. Halloran, I.M. Longini, R. Ternier, K. Vissieres, A.S. Azman, J. Lessler, L.C. Ivers, Achieving coordinated national immunity and cholera elimination in Haiti through vaccination, *Lancet Global Health*, 8(8), 10891-10898, https://doi.org/10.1101/19011072, 2020

[303] Giezendanner, J. D. Pasetto , J. Perez-Saez, C. Cerrato R. Viterbi, S. Terzago , E. Palazzi, A. RINALDO, Earth and field observations underpin metapopulation dynamics in complex landscapes: Near-term study on carabids, *Proceedings of the US National Academy of Sciences*, 117(23), 12877--12884, 2020

[302] Lemaitre, J.C., J. Perez-Saez, A.S. Azman, A. RINALDO, J. Fellay, Assessing the impact of non-pharmaceutical interventions on SARS-CoV-2 transmission in Switzerland, *Swiss Medical Weekly*, 50, w20295, 2020

[301] Guswa, A., D. Tetzlaff, J.S. Selker, D.E. Carlyle-Moses, E.W. Boyer, M. Bruen, I. Creed, N. van de Giesen, D. Grasso, D.M. Hannah, J.E. Hudson, R.B. Jackson, G.G. Katul, T. Kumagai, P. Llorens, K. Nanko, D.E. Pataki, C.A. Peters, A. RINALDO, D.S. Carretero, B. Trifunovic, M. Zalewski, D. Levia, Advancing ecohydrology in the 21st century: A convergence of opportunities, *Ecohydrology*, 13(4), e2208, 2020

[300] Gatto, M., E. Bertuzzo, L. Carraro, L. Mari, S. Miccoli, R. Casagrandi, A. RINALDO, Spread and dynamics of the COVID-19 epidemic in Italy: effects of emergency containment measures, *Proceedings of the US National Academy of Sciences*, 117(19), 10484-10491, 2020

[299] Carraro, L., M. Toffolon, A. RINALDO, E. Bertuzzo, SESTET: a spatially explicit stream temperature model based in equilibrium temperatures, *Hydrological Processes*, 34(2), 355--369, 2020

2019

[298] Perez-Saez, J., T. Mande, D. Zongo, A. RINALDO, Comparative analysis of time-based and quadrat sampling in seasonal population dynamics of intermediate hosts of human schistosomes, *PLoS Neglected Tropical Diseases,* 13(12), e0007938, 2019

[297] Meggiorin, M., G. Passadore, S. Bertoldo, A. Sottani, A. RINALDO, Stochastic analysis of groundwater temperature timeseries for characterizing check dams efficiency: case study on a Managed Aquifer Recharge site (Veneto, Italy), *Acque Sotterranee-Italian Journal of Groundwater*, 8(4), 31-37, 2019

[296] Lemaitre, J.F., D. Pasetto, J. Perez-Saez, C. Sciarra, J.F. Wamala, A. RINALDO, Rainfall as a driver of epidemic cholera: comparative model assessment of the effect of intra-seasonal precipitation events, *Acta Tropica*, 190, 235--243, 2019

[295] Zaoli, S., A. Giometto, E. Marañon, S. Escrig, A. Meibom, , A. Maritan, A. RINALDO, Generalized size-scaling of metabolic rates based on single-cell measurements with freshwater phytoplankton, *Proceedings of the US National Academy of Sciences*, 116 (35), 17323-17329, 2019

[294] Muneepeerakul, R., E. Bertuzzo, A, RINALDO, I. Rodriguez-Iturbe, Evolving biodiversity patterns in changing river networks, *Journal of Theoretical Biology,* 462, 418-424, 2019

[293] Benettin, P., P. Queloz, M. Bensimon, J.J, McDonnell, A. RINALDO, Velocities, residence times, tracer breakthroughs in a vegetated lysimeter: a multi-tracer experiment, *Water Resources Research*, 55, 21-33, 2019

[292] Giezendanner, J., E. Bertuzzo, D. Pasetto, A. Guisan, A. RINALDO, A minimalist model of extinction and range dynamics of virtual mountain species driven by warming temperatures, *PLoS ONE*, 14(3), e0213775, 2019

[291] Mari, L., R. Casagrandi, E. Bertuzzo, A. RINALDO, M. Gatto, Conditions for transient epidemics of waterborne disease in spatially explicit systems, *Royal Society Open Science*, 6(5), 181517, 2019

[290] Santos, A.C., M.M. Portela, A. RINALDO, B. Schaefli, Estimation of streamflow recession parameters: New insight from an analytic streamflow distribution model, *Hydrological Processes*, 33(11), 1595-1609, 2019

[289] Hoover. C.M., S. Sokolow, J. Kemp, A.J. Lund, I.J. Jones, T. Higginson, G. Riveau, A. Savaya, S. Coyle, F. Micheli, R. Casagrandi, L. Mari, M. Gatto, A. RINALDO, J. Perez-Saez, J.R. Rohr, A. Sagi, J,V, Remais, G.A. De Leo, Modelled effect of prawn aquaculture on poverty alleviation and schistosomiasis control, *Nature Sustainability*, 2(7), 611-620, 2019

[288] Zaoli, S., A. Giometto, J, Giezendanner, A. Maritan, A. RINALDO, On the probabilistic nature of the species-area relation in ecology, *Journal of Theoretical Biology,* 462, 391-407, 2019

[287] Magliaro, C., A. RINALDO, A. Ahluwalia, Allometric scaling of physiologically relevant organoids, *Scientific Reports*, 9, 11890, 2019

[286] Gonzalez-Ferreras, A., E. Bertuzzo, J. Barquín, L. Carraro, C. Alonso, A. RINALDO, Effects of altered river network connectivity on the distribution of *Salmo trutta*: Insights from metapopulation model, *Freshwater Biology*, 64, 1877-1895, 2019

[285] Carraro, L., M. Toffolon, A. RINALDO, E. Bertuzzo, SESTET: a spatially explicit stream temperature model based on equilibrium temperature, *Hydrological Processes*, 10.1002/hyp.13591, 1-15, 2019

[284] Perez-Saez, J., T. Mande, A. RINALDO, Space and time predictions of schistosomiasis snail host population dynamics across hydrologic regimes in Burkina Faso, *Geospatial Health*, 14 (796), 306-313, 2019

2018

[283] Carraro, L., L. Mari, M. Gatto, E. Bertuzzo, A. RINALDO, The spread of proliferative kidney disease in fish along stream networks: a spatial metacommunity framework. *Freshwater Biology*, 63(1), 114-127, 2018

[282] Finger, F., E. Bertuzzo, F.J. Luquero, N, Naibei, B. Toure, M. Allan, K. Porten, J. Lessler, A. RINALDO, A.S. Azman, The potential impact of case-area targeted interventions in response to cholera outbreaks: A modeling study, *PLOS Medicine*, 2, e1002509, 2018.

[281] RINALDO, A., M. Gatto, I. Rodriguez-Iturbe, River networks as ecological corridors: a coherent ecohydrological perspective, Advances in Water Resources, 112, 27-58, 2018

[280] Finotello, A., S. Lanzoni, M. Ghinassi, M. Marani, A. RINALDO, A. D'Alpaos, Field migration rates of tidal meanders recapitulate fluvial morphodynamics, *Proceedings of the US National Academy of Sciences* PNAS*,* 115(7), 1463-1468, 2018

[279] Dos Santos, A.C. M.M. Portela, A. RINALDO, B. Schaefli, Analytical flow duration curves for summer streamflow in Switzerland, *Hydrology and Earth System Sciences*, 22(4), 2377-2389, 2018

[278] Pasetto, D. F. Finger, A. Camacho, F. Grandesso, S. Cohuet, J.C. Lemaitre, A.S. Azman, F.J. Luquero, E. Bertuzzo, A. RINALDO, Near real-time forecasting for cholera decision making in Haiti after Hurricane Matthew, *PLoS Computational Biology*, 14(5), e1006127, 2018

[277] Mari, L., R. Casagrandi, Renato, M. Gatto, Epidemicity thresholds for water-borne and water-related diseases, *Journal of Theoretical Biology*, 447, 126-138, 2018

[276] Lemaitre, J.F., D. Pasetto, J. Perez-Saez, C. Sciarra, J.F. Wamala, A. RINALDO, Rainfall as a driver of epidemic cholera: comparative model assessment of the effect of intra-seasonal precipitation events, *Acta Tropica*, 190, 235-243, 2018

[275] Pasetto, D., S. Arenas-Castro, J. Bustamante, R. Casagrandi, N. Crysoulakis, A.F. Cord, A. Dittrich, C. Domingo-Marimon, G. El Serafy, A. Karnieli, G.A. Kordelas, I. Manakos, L. Mari, A. Monteiro, E. Palazzi, D. Poursanidis, A. RINALDO, S. Terzago, A. Ziemba, G. Ziv, Integration of satellite remote sensing data in ecosystem modelling at local scales: Practices and trends, *Methods in Ecology and Evolution*, 9(8), 1810-1821, 2018

[274] Dzubakova, K., P. Hannes, E. Bertuzzo, C. Huez, M.J. Franca, A. RINALDO, T.J. Battin, Environmental heterogeneity promotes spatial resilience of phototrophic biofilms in streambeds, *Biology Letters*, 14(10), 20180432, 2018

[273] Cheraghi, M., A. RINALDO, G.C. Sander, P. Perona, D.A. Barry, Catchment drainage scaling laws found experimentally in overland flow morphologies, *Geophysical Research Letters*, 45(18), 9614-9622, 2018

[272] Mari. L. R. Casagrandi, A. RINALDO, M. Gatto, Epidemicity thresholds for water-borne and water-related diseases, *Journal of Theoretical Biology*, 447, 126-138, 2018

[271] Zaoli, S., A. Giometto, J, Giezendanner, A. Maritan, A. RINALDO, On the probabilistic nature of the species-area relation in ecology , *Journal of Theoretical Biology,* 462, 391-407, 2018

[270] Carraro, L., H. Hartikainen, J. Jokkela, E. Bertuzzo, A. RINALDO, Estimating species distribution and abundance in river networks using environmental DNA, *Proceedings of the US National Academy of Sciences* PNAS, 115 (46) 11724-1172, 2018

[269] Balister, P., J. Balogh, E. Bertuzzo, B. Bollobas, G. Caldarelli, A. Maritan, R. Mastrandrea, R. Morris, A. RINALDO, River landscapes and optimal channel networks, *Proceedings of the US National Academy of Sciences* PNAS, 115 (26), 6548-6553, 2018

2017

[268] RINALDO, A., E. Bertuzzo, L. Mari, M. Blokesch, M. Gatto, Modeling key drivers of cholera transmission dynamics provides new perspectives on parasitology, *Trends in Parasitology* , 33(8), 587-599, 2017.

[267] Benettin, P., C. Souslby, C. Birkel, D. Tetzlaff, G. Botter, A. RINALDO, Using SAS functions and high-resolution isotope data to unravel travel-time distributions in headwater catchments, *Water Resources Research*, 53(3), 1864-1878, 2017

[266] Mari, L., R. Casagrandi, A. RINALDO, M Gatto, A generalized definition of reactivity for ecological systems and the problem of transient species dynamics*, Methods in Ecology and Evolution*, 8(11), 1574-1584, 2017

[265] Mari, L., M. Ciddio, R. Casagrandi, J. Perez-Saez, E. Bertuzzo, A. RINALDO, S.H. Sokolow, G. A. De Leo, M. Gatto, Heterogeneity in schistosomiasis transmission dynamics, *Journal of Theoretical Biology*, 432, 87-99, 2017

[264] Benettin, P., S.W. Bailey, A. RINALDO, G.E. Likens, K.J. McGuire, G. Botter, Young water outflows capture dynamics of streamwater age and solute concentration, *Hydrologic Processes*, 31(16), 2982-2986, 2017

[263] Mari, L. R. Casagrandi, E. Bertuzzo, A. RINALDO, M. Gatto, Conditions for transient epidemics of waterborne disease in spatially explicit systems, *Journal of Theoretical Biology*, doi:10.1016/2017.1010.1004, 2017

[262] Perez-Saez, J., T. Mande, N. Ceperley, E. Bertuzzo, L. Mari, M. Gatto, A. RINALDO, Incorporating the ecology of intemediate hosts of schistosomiasis into spatially explicit models of disease transmission in seasonal climates, *Tropical Medicine & International Health*, 22, 19-20, 2017

[261] Strano, E., A. Giometto, H. Shai, E. Bertuzzo, O.J. Mucha, A. RINALDO, The scaling structure of the global road network, *Royal Society Open Science*, 4(10), 170590, 2017

[260] Tejedor, A., A. Longjas, D.A. Edmonds, I. Zalyapin, T. Georgiou, A. RINALDO, E. Foufoula-Georgiou, Entropy and optimality in river deltas, *Proceedings of the US National Academy of Sciences PNAS,* 114(44), 11651-11656, 2017

[259] Perez-Saez, J., A.A. King, A. RINALDO, M. Yunus, A.S.G. Faruque, M. Pascual, Climate-driven endemic cholera is modulated by human mobility in a megacity, *Advances in Water Resources*, 108, 367-376, 2017
[258] Pasetto, D., F. Finger, A. RINALDO, E. Bertuzzo, Real-time projections of cholera outbreaks through data assimilation and rainfall forecasting, *Advances in Water Resources,* 108, 345-356, 2017
[257] Zaoli, S., A. Giometto, A. Maritan, A. RINALDO, Covariations in ecological scaling laws fostered by community dynamics, *Proceedings of the US National Academy of Sciences PNAS,* 114(40), 10672-10677, 2017
[256] Giometto, A., F. Altermatt, A. RINALDO, Demographic stochasticity and resource autocorrelation control biological invasions in heterogeneous landscapes, *Oikos*, 126(11), 1554-1563, 2017
[255] Carraro, L., E. Bertuzzo, L. Mari, I. Fontes, H. Hartikainen, N. Strepparava, H, Schmidt-Posthaus, T. Wahli, J. Jokela, M. Gatto, A. RINALDO, Integrated field, laboratory and theoretical study of PKD spread in a Swiss prealpine river, *Proceedings of the US National Academy of Sciences PNAS,* 114(45), 11992-11997, 2017
[254] Perez-Saez, J., T. Mande, J. Larsen, N. Ceperley, A. RINALDO , Classification and prediction of river network ephemerality and its relevance for waterborne disease epidemiology, *Advances in Water Resources*, 110, 263-278, 2017

2016

[253] RINALDO, A., P. Benettin, C.J. Harman, M. Hracowitz, Y. Van der Velde, K.J. McGuire, E. Bertuzzo, G. Botter, Reply to comment on "Storage selection functions: A coherent framework for quantifying how catchments store and release water and solutes", *Water Resources Research*, 52(1), 616-618, 2016
[252] Bertuzzo, E., F. Carrara, L. Mari, F. Altermatt, I. Rodriguez-Iturbe, A. RINALDO, Geomorphic controls on elevational gradients of species richness, *Proceedings of the US National Academy of Sciences,* 113 (7), 1737-1742, 2016
[251] Perez-Saez, J.F., T. Mande, N. Ceperley, E. Bertuzzo, L. Mari, M. Gatto, A. RINALDO, Hydrology and density feedbacks control the ecology of intermediate hosts of schistosomiasis across habitats in seasonal climates, *Proceedings of the US National Academy of Sciences PNAS,* 113 (23), 6427-6432, 2016
[250] Finger, F., T. Genolet, L. Mari, G.C. de Magny, N.M. Manga, A. RINALDO, E. Bertuzzo, Mobile phone data highlights the role of mass gatherings in the spreading of cholera outbreaks, *Proceedings of the US National Academy of Sciences PNAS,* 113 (23), 6421-6426, 2016
[249] Mutzner, R., P. Tarolli, G. Sofia, M.B. Parlange, A. RINALDO, Field study on drainage densities and rescaled width functions in a high-altitude alpine catchment, *Hydrological Processes*, 30(13), 2138-2152, 2016
[248] Bertuzzo, E., F. Finger, L. Mari, M. Gatto, A. RINALDO, On the probability of extinction of the Haiti cholera epidemic, *Stochastic Environmental Research and Risk*, 30(8), 2043-2055, 2016
[247] Carraro, L., H. Hartikainen, N. Strepparava, T. Wahli, J. Jokkela, M. Gatto, E. Bertuzzo, A. RINALDO, An epidemiological model for proliferative kidney disease in salmonid populations, *Parasites & Vectors*, 9, 487, 2016
[246] Benettin, P., C. Soulsby, C. Birkel, D. Tetzlaff, G. Botter, A. RINALDO, Using SAS functions and high-resolution isotope data to unravel travel time distributions in headwater catchments, *Water Resources Research*, 10.1002/2016WR020117, 2016
[245] Carraro, L., L. Mari, M. Gatto, E. Bertuzzo, A. RINALDO, The spread of proliferative kidney disease in fish along stream networks: a spatial metacommunity framework. *Freshwater Biol.*, doi: 10.1111/fwb.12939, 2016
[244] Pasetto, D., F. Finger, A. RINALDO, E. Bertuzzo, Real-time projections of cholera outbreaks through data assimilation and rainfall forecasting. *Adv. Water Resour.*, doi: 10.1016/j.advwatres.2016.1010.1004, 2016

2015

[243] Carrara, F., A. Giometto, M. Seymour, A. RINALDO, F. Altermatt, Inferring species interactions in ecological communities: a comparison of methods at different levels of complexity, *Methods in Ecology and Evolution*, 6 (8), 895-906, 2015
[242] Righetto, L., R.U. Zaman, Z.H. Mahmud, E. Bertuzzo, L. Mari, R. Casagrandi,. M. Gatto. S. Islam, A. RINALDO, Detection of Vibrio cholerae O1 and O139 in environmental waters of rural Bangladesh: a flow-cytometry-based field trial, *Epidemiology & Infection*, 143 (11), 2330-2342, 2015
[241] Giometto, A., M. Formentin, A. RINALDO, A. Maritan, Sample and population exponents of generalized Taylor's law, *Proceedings of the US National Academy of Sciences PNAS,* 112 (25), 7755-7760, 2015
[240] Suweis, S., J.A. Carr, A. Maritan, A. RINALDO, P. D'Odorico, Resilience and reactivity of global food security, *Proceedings of the US National Academy of Sciences PNAS*, 112 (22), 6902-6907, 2015
[239] Giometto, A., F. Altermatt, A. Maritan, R. Stocker, A. RINALDO, Generalized receptor law governs phototaxis in the phytoplankton *Euglena gracilis*, *Proceedings of the US National Academy of Sciences PNAS,* 112, 7045-7050, 2015

[238] RINALDO, A., P. Benettin, C.J. Harman, M. Hracowitz, Y. Van der Velde, K.J. McGuire, E. Bertuzzo, G. Botter, Storage selection functions: A coherent framework for quantifying how catchments store and release water and solutes, *Water Resources Research*, 51(6), 4840-4847, 2015

[237] Comola, F., B. Schaefli, G. Botter. M. Bavay, A. RINALDO, Scale-dependent effects of solar radiation patterns on the snow-dominated hydrologic response, *Geophysical Research Letters*, 42 (10), 3895-3902, 2015

[236] Benettin, P., J.W. Kirchner, A. RINALDO, G. Botter, Modeling chloride transport using travel time distributions at Plynlimon, Wales, *Water Resources Research*, 51(5), 3259-3276, 2015

[235] Carrara, F., A. Giometto, M. Seymour, A. RINALDO, F. Altermatt, Experimental evidence for strong stabilizing forces at high functional diversity of aquatic microbial communities, *Ecology*, 96(5), 1340-1350, 2015

[234] Bertuzzo, E., I. Rodriguez-Iturbe, A. RINALDO, Metapopulation capacity of evolving fluvial landscapes, *Water Resources Research*, 51(4), 2696-2706, 2015

[233] Queloz, P., E. Bertuzzo, L. Carraro, G. Botter, F. Miglietta, P.S.C. Rao, A. RINALDO, Transport of fluorobenzoate tracers in a vegetated hydrologic control volume: 1. Experimental results, *Water Resources Research*, 51(4), 2773-2792, 2015

[233] Queloz, P., E. Bertuzzo, L. Carraro, G. Botter, F. Miglietta, P.S.C. Rao, A. RINALDO, Transport of fluorobenzoate tracers in a vegetated hydrologic control volume: 2. Theoretical inferences and modeling, *Water Resources Research*, 51(4), 2793-2806, 2015

[232] Del Jesus, M., A. RINALDO, I. Rodriguez-Iturbe, Point rainfall statistics for ecohydrological analyses derived from satellite integrated rainfall measurements, *Water Resources Research*, 51(4), 2974-2985, 2015

[231] Mari, L., E. Bertuzzo, F. Finger, R. Casagrandi, M. Gatto. A. RINALDO, On the predictive ability of mechanistic models for the Haitian cholera epidemic, *Journal of the Royal Society Interface*, 12(104), 20140840, 2015

[230] Comola, F., B. Schaefli, A. RINALDO, M. Lehning, Thermodynamics in the hydrologic response: Travel time formulation and application to Alpine catchments, *Water Resources Research*, 51(3), 1671-1687, 2015

[229] Passadore, G., A. Sottani, L. Altissimo, A. RINALDO, Using heat as a tracer to characterize streambed water fluxes of the Brenta River (Italy), *Engineering Geology*, 3, 241-244, 2015

[228] Ciddio, M., Mari, L., M. Gatto, A. RINALDO, R. Casagrandi, The temporal patterns of disease severity and prevalence in schistosomiasis, *Chaos*, 25(3), 036405, 2015

[227] Foti, R., M. del Jesus, A. RINALDO, I. Rodriguez-iturbe, Demodulation of time series highlights impacts of hydrologic drivers on the Everglades ecosystem, *Ecohydrology*, 8(2), 204-213, 2015

[226] Perez-Saez, J.F., L. Mari, M. Gatto, E. Bertuzzo, A. RINALDO, Spatial patterns of schistosomiasis in Burkina Faso: relevance of human mobility and water resources development, *Tropical Medicine & International Health*, SI 1, 227-227, 2015

[225] Perez-Saez, J.F., L. Mari, E. Bertuzzo, R. Casagrandi, S.H. Sokolow, G.A. De Leo, T. Mande, N. Ceperley, J.M. Froehlich, M. Sou, H. Karambiri, H, Yacouba, A. Maiga, M. Gatto, A. RINALDO, 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(10), e0004127, 2015

[224] Benettin, P., S.W. Bailey, J.L. Campbell, M.B. Green, A. RINALDO, G.E. Likens, K. McGuire, G. Botter, Linking water age and solute dynamics in streamflow at the Hubbard Brook Experimental Forest, NH, USA, *Water Resources Research*, 51(11), 9256-9272, 2015

[223] Benettin, P., A. RINALDO, G. Botter, Tracking residence times in hydrological systems: forward and backward formulations, Hydrological Processes, 29(25), 5203-5213, 2015

2014

[222] RINALDO, A., R. Rigon, J.R. Banavar, A. Maritan, A. Rinaldo, Evolution and selection of river networks: statics, dynamics, complexity, *Proceedings of the US National Academy of Sciences PNAS*, 111(7), 2417-2424, 2014

[221] Banavar, J.R., T. Cooke. A. RINALDO, A. Maritan, Form, function and evolution of living organisms, *Proceedings of the US National Academy of Sciences PNAS*, 111(9), 3332-3337, 2014

[220] Giometto, A., A. RINALDO, F. Carrara, F. Altermatt, Emerging predictable features on replicated biological invasion fronts, *Proceedings of the US National Academy of Sciences PNAS*, 111(1), 297-301, 2014

[219] Carrara, F., A. RINALDO, A. Giometto, F. Altermatt, Complex interaction of dendritic connectivity and hierarchical patch size on biodiversity in river-like landscapes, *American Naturalist*, 183(1), 13-25, 2014

[218] Mari, L., R. Casagrandi, E. Bertuzzo, A. RINALDO, M. Gatto, Metapopulation persistence and species spread in river networks, *Ecology Letters*, 17, 426–434, 2014

[217] Ceola, S., E. Bertuzzo, L. Mari, G. Botter, I. Hodl, T.J. Battin, M. Gatto, A. RINALDO, Light and hydrologic variability as drivers of stream biofilm dynamics in a flume experiment, *Ecohydrology*, 17(4), 426-434, 2014

[216] Ceola S., E. Bertuzzo, L. Mari, G. Botter, I. Hodl, T.J. Battin, M. Gatto, A. RINALDO, Hydrologic controls on basin-scale distributions of benthic invertebrates, *Water Resources Research*, 50(4), 2903-2920, 2014
[215] Hodl, I., L. Mari, E. Bertuzzo, S. Suweis, K. Besemer, A. RINALDO, T.J. Battin, Biophysical controls on cluster dynamics and architectural differentiation of microbial biofilms in contrasting flow environments, *Environmental Microbiology,* 16(3), 802-812, 2014
[214] Knox, A., E. Bertuzzo, L. Mari, D. Odermatt, E. Verrecchia, A. RINALDO, Optimizing a remotely sensed proxy for plankton biomass in Lake Kivu, *International Journal of Remote Sensing*, 35(13), 5219-5238, 2014
[213] Finger, F., A. Knox, E. Bertuzzo, L. Mari. D. Bompangu, M. Gatto, I. Rodriguez-Iturbe, A. RINALDO, Cholera in the lake Kivu region (DRC): Integrating remote sensing and spatially explicit epidemiological modeling, *Water Resources Research*, WR015521, 5624-5637, 2014
[212] Widder, S., K. Besemer, G.A. Singer, S. Ceola, E. Bertuzzo, C. Quince, W.T. Sloan, A. RINALDO, T.J. Battin, Fluvial network organization imprints on microbial co-occurrence networks, *Proceedings of the US National Academy of Sciences PNAS*, 11(35) 12799-12804, 2014
[211] Kuehn, J., F. Finger, E. Bertuzzo, S. Bourgeaud, M. Gatto, A. RINALDO, M. Blokesch, Glucose- but not rice-based oral rehydration therapy enhances the production of virulence determinants in the human pathogen Vibrio cholerae, *PLoS Neglected Tropical Diseases*, 8 (12), e3347, 2014
[210] Rossel, F., J. Gironas, A. Mejia, A. RINALDO, F. Rodriguez, Spatial characterization of catchment dispersion mechanisms in an urban context, *Advances in Water Resources*, 74, 290-301, 2014
[209] Mari, L., R. Casagrandi, E. Bertuzzo, A. RINALDO, M. Gatto, Floquet theory for seasonal environmental forcing of spatially explicit waterborne epidemics, *Theoretical Ecology*, 7 (4), 351-365, 2014
[208] Schaefli, B., L. Nicotina, C. Imfeld, E. Bertuzzo, A. RINALDO, SEHR-ECHO v1.0: A spatially explicit response model for ecohydrologic applications, *Geoscientific Model Development*, 7(6), 2733-2746, 2014

2013
[207] Gatto, M., L. Mari, E. Bertuzzo, L. Righetto, R. Casagrandi, I. Rodriguez-Iturbe, A. RINALDO, Spatially explicit conditions for waterborne pathogen invasion, *American Naturalist*, 182(3), 328-346, 2013.
[206] Botter, G., S. Basso, I. Rodriguez-Iturbe, A. RINALDO, Resilience of river flow regimes, *Proceedings of the US National Academy of Sciences PNAS*, 110(32), 12925-12030, 2013.
[205] Righetto. L., E. Bertuzzo, L. Mari, R. Casagrandi, M. Gatto. A. RINALDO, Rainfall mediations in the spreading of epidemic cholera, *Advances in Water Resources*, 60, 34-46, 2013.
[204] Schaefli. B., A. RINALDO, G. Botter, Analytic probability distributions for snow-dominated streamflow, *Water Resources Research*, 49(5), 2701-2713, 2013.
[203] Dorsatz, J.M, J. Gironas, C. Escauriaza, A. RINALDO, The geomorphometry of endorheic drainage basins: implications for modelling their evolution, *Earth Surface Processes and Landforms,* 38(15), 1881-1896, 2013.
[202] Tobin, C., B. Schaefli, L. Nicotina, A. RINALDO, Improving the degree-day method for sub-daily melt simulations with physically-based diurnal variations, *Advances in Water Resources*, 55, 149-164, 2013.
[201] Foti, R., M. del Jesus, A. RINALDO, I. Rodriguez-Iturbe, Signs of critical transition in the Everglades wetlands in response to anthropogenic changes, *Proceedings US National Academy of Sciences PNAS*, 110(6), 6296-6300, 2013.
[200] Ceola, S., I. Hoedl, M. Adboller, G. Singer, E. Bertuzzo, T. Battin, A. RINALDO, Hydrologic variability affects invertebrate grazing on phototrophic biofilms in stream microcosms, *PLOS One*, 8(4), e60629, 2013.
[199] Giometto, A., F. Altermatt, F. Carrara, A. RINALDO, Scaling body size fluctuations, *Proceedings of the US National Academy of Sciences PNAS*, 110(2), 4646-4650, 2013.
[198] Suweis, S., A. RINALDO, A. Maritan, P. D'Odorico, Water-controlled wealth of nations, *Proceedings of the US National Academy of Sciences PNAS,* 110(11), 4230-4233, 2013.
[197] Schaefli, B. A. RINALDO, G. Botter, Analytic probability distributions for snow-dominated streamflow, *Water Resources Research,* 49(5), 2701-2713, 2013.
[196] Mutzner, R., E. Bertuzzo, P. Tarolli, S. Weijs, L. Nicotina, S. Ceola, N. Tomasic, I. Rodriguez-Iturbe, M.B. Parlange, A. RINALDO, Geomorphic signatures on Brutsaert base flow recession analysis, *Water Resources Research,* doi: 10.1002/wrcr.20417, 2013.
[195] Passalacqua, P., C. Paola, S. Lanzoni, A. RINALDO, Geomorphic signatures of deltaic processes and vegetation: The Ganges-Brahmaputra-Jamuna case study, *Journal of Geophysical Research: Earth Surface*, 118(3), 1838-1849, 2013.
[194] D'Alpaos, A., L. Carniello, A. RINALDO, Statistical mechanics of wind wave induced erosion in shallow tidal basins: inferences from the Venice lagoon, *Geophysical Research Letters*, 40(13), 3402-3407, 2013.

[193] Hoedl, I., L. Mari, E. Bertuzzo, S. Suweis, K. Besemer, A. RINALDO, T. Battin, Biophysical controls on cluster dynamics and architectural differentiation of microbial biofilms in contrasting flow environments, *Enviromental Micriobiology*, doi:10.1111/1462-2920.12205, 2013.
[192] Bertuzzo, E., M. Thomet, G. Botter, A. RINALDO, Catchment-scale herbicide transport : Theory and application, *Advances in Water Resources*, 52, 232-242, 2013.
[191] Barry, A.B., G.G. Katul, C.T. Miller, A. Rinaldo, Advances in Water Resources : 35th Anniversary Issue Preface, *Advances in Water Resources*, 51, 1-2, 2013.
[190] Konar, M., M.J. Todd, R. Muneepeerakul, A. Rinaldo, I. Rodriguez-Iturbe, Hydrology as a driver of biodiversity : Controls on carrying capacity, niche formation, and dispersal, *Adv. Water Resour.*, 51, 317-325, 2013.
[189] Benettin, P., Y. Van der Velde, S.E.A.T.M. van dr Zee, A. RINALDO, G. Botter, Chloride circulation in a lowland catchment and the formulation of transport by travel time distributions, *Water Resour. Res.*, 49(8), 4619-4632, 2013.
[188] Benettin, P., A. RINALDO, G. Botter, Kinematics of age mixing in advection-dispersion models, *Water Resources Research*, 49(12), 8539-8551, 2013

2012
[187] Konar, M., C. Dalin, N. Hanasaki, A. RINALDO, I. Rodriguez-Iturbe, Temporal dynamics of blue and green virtual water trade networks, *Water Resources Research*, 48, W07509, 2012.
[186] Suweis, S., A. RINALDO, A. Maritan, An exactly solvable coarse-grained model for species diversity *Journal of Statistical Mechanics - Theory and Experiment*, P07017, 2012.
[185] Zanardo, S., N. B. Basu, G. Botter, A. RINALDO, P.S.C. Rao, Correction to : Dominant controls on pesticide transport from tile to catchment scale: Lessons from a minimalist model, *Water Resources Research*, 48, doi : 10.1029/2012WR012775, 2012.
[184] Stefanon, L., L. Carniello, A. D'Alpaos, A. RINALDO, Signatures of sea level changes on tidal geomorphology: Experiments on network incision and retreat, *Geophysical Research Letters*, 39, L12402, 2012
[183] Todd, M. J., R. Muneepeerakul, F. Miralles-Wilhelm, A. RINALDO, I. Rodriguez-Iturbe, Possible climate change impacts on the hydrological and vegetative character of Everglades National Park, Florida, *Ecohydrology*, 5(3), 326-336, 2012.
[182] Passadore, G., M. Monego, L. Altissimo, A. Sottani, M. Putti, A. RINALDO, Alternative conceptual models and the robustness of groundwater management scenarios in the multi-aquifer system of the Central Veneto Basin, Italy, *Hydrogeology Journal,* 20(3), 419-433, 2012.
[182] Zanardo, S., N.B. Basu, G. Botter, A. RINALDO, P.S.C. Rao, Dominant controls on pesticide transport from tile to catchment scale: Lessons from a minimalist model, *Water Resources Research*, 48, W04525, 2012.
[181] RINALDO, A., E. Bertuzzo, L. Mari, L. Righetto, M. Blokesch, M. Gatto, R. Casagrandi, M. Murray, S. M. Vesenbeckh, I. Rodriguez-Iturbe, Reassessment of the 2010-2011 Haiti cholera outbreak and rainfall-driven multiseason projections, *Proceedings of The US National Academy of Sciences PNAS*, 109(17), 6602-6607, 2012.
[180] Dalin, C., M. Konar, N. Hanasaki, A. RINALDO, I. Rodriguez-Iturbe, Evolution of the global virtual water trade network, *Proceedings of the US National Academy of Sciences PNAS*, 109(16), 5989-5994, 2012.
[179] Carrara, F., F. Altermatt, I. Rodriguez-Iturbe, A. RINALDO, Dendritic connectivity controls biodiversity patterns in experimental metacommunities, *Proceedings of the US National Academy of Sciences PNAS*, 109(15), 5761-5766, 2012.
[178] Bertuzzo, E., L. Mari, L. Righetto, M. Gatto, R. Casagrandi, I. Rodriguez-Iturbe, A. RINALDO, Hydroclimatology of dual-peak annual cholera incidence: Insights from spatially explicit model, *Geophysical Research Letters*, 39, L05403, 2012.
[177] Righetto, L., R. Casagrandi, E. Bertuzzo, L. Mari, M. Gatto, I. Rodriguez-Iturbe, A. RINALDO, The role of aquatic reservoir fluctuations in long-term cholera patterns, *Epidemics*, 4(1), 33-42, 2012.
[176] Mari, L., E. Bertuzzo, L. Righetto, R. Casagrandi, M. Gatto, I. Rodriguez-Iturbe, A. RINALDO, Modelling cholera epidemics: the role of waterways, human mobility and sanitation, *Journal of the Royal Society Interface,* 9(67), 376-388, 2012.
[175] Del Jesus, M., R. Foti, A. RINALDO, I. Rodriguez-Iturbe, Maximum entropy production, carbon assimilation and the spatial organization of vegetation in river basins, *Proceedings of The US National Academy of Sciences PNAS*, 109(51), 20837-20841, 2012.
[174] Foti, R. M. del Jesus, A. RINALDO, I. Rodgiguez-Iturbe, Hydroperiod regime controls the organization of plant species in wetlands, *Proceedings of The US National Academy of Sciences PNAS*, 109(48), 19596-19600, 2012.
[173] Gatto, M., L. Mari. E. Bertuzzo, L. Righetto, R. Casagrandi, I. Rodriguez-Iturbe, A. RINALDO, Generalized

reproduction numbers and the prediction of patterns in waterborne disease, *Proceedings of The US National Academy of Sciences PNAS*, 109(48), 19703-19708, 2012.
[172] Tobin, C., A. RINALDO, B. Schaefli, Snowfall limit forecasts and hydrologic modelling, *Journal of Hydrometeorology,* 13(5), 1507-1519, 2012.
[171] Mari, L., E. Bertuzzo, L. Righetto, R. Casagrandi, I. Rodriguez-Iturbe, M. Gatto, A. RINALDO, On the role of human mobility in the spread of cholera epidemics : towards an epidemiological movement ecology, *Ecohydrology*, 5(5), 531-540, 2012.
[170] Suweis, S., E. Bertuzzo, L. Mari, A. Maritan, A. RINALDO, On species persistence-time distributions, *Journal of Theoretical Biology*, 303, 15-24, 2012.

2011
[169] Muneepeerakul R., S. Azaele, S.A. Levin, A. RINALDO, I. Rodriguez-Iturbe, Evolution of dispersal in explicitly spatial metacommunities, *Journal of Theoretical Biology*, 269(1), 256-265, 2011
[168] Righetto, L., E. Bertuzzo, L. Mari, M. Gatto. R. Casagrande, I. Rodriguez-Iturbe, A. RINALDO, Modelling human movement in cholera spreading along fluvial systems, *Ecohydrology*, 4(1), 49-55, 2011
[167] Bertuzzo, E., L. Mari, L. Righetto, M. Blokesch, M. Gatto, R. Casagrandi, I. Rodriguez-Iturbe, A. RINALDO, Prediction of the spatial evolution and effects of control measures for the unfolding Haiti cholera outbreak, *Geophysical Research Letters*, 38, L06403, 2011
[166] Bertuzzo, E., S. Suweis, L. Mari, A. Maritan, I. Rodriguez-Iturbe, A. RINALDO, Spatial effects on species persistence and implications for biodiversity, *Proceedings of the National Academy of Sciences USA (PNAS),* 108(11), 4346-4351, 2011
[165] Mari, L., E. Bertuzzo, M. Gatto, R. Casagrandi, S.A. Levin, I. Rodriguez-Iturbe, A. RINALDO, Hydrologic controls and anthropogenic drivers of the zebra mussel invasion of the Mississippi-Missouri river system, *Water Resources Research*, 47, W03523, 2011
[164] Suweis, S., M. Konar, C. Dalin, N. Hanasaki, A. RINALDO, I. Rodriguez-Iturbe, Structure and controls of the global virtual water trade network, *Geophysical Research Letters*, 38, L08405, 2011
[163] Tobin, C., L. Nicotina, M.B. Parlange, A. Berne, A. RINALDO, Improved interpolation of meteorological forcings for hydrologic applications in a Swiss Alpine region, *Journal of Hydrology*, 401(1-2), 77-89, 2011
[162] Altermatt, F., A. Bieger, F. Carrara, A. RINALDO, M. Holyoak, Effects of Connectivity and Recurrent Local Disturbances on Community Structure and Population Density in Experimental Metacommunities, *PLOS One*, 64, e19525, 2011
[161] Nicotina, L., D.R. Tarboton, T.K. Tesfa, A. RINALDO, Hydrologic controls on equilibrium soil depths , *Water Resources Research*, 47, W04517, 2011
[160] Konar, M., S. Suweis, C. Dalin, N. Hanasaki, A. RINALDO, I. Rodriguez-Iturbe, Water for food: The global virtual water trade network, *Water Resources Research*, 47, W05520, 2011
[159] Botter, G., E. Bertuzzo, A. RINALDO, Catchment residence and travel time distributions: the Master Equation, *Geophysical Research Letters*, 38, L11403, 2011
[158] Suweis, S., A. Porporato, A. Maritan, A. RINALDO, Prescription-induced jump distribution in multiplicative Poisson processes, *Physical Review E*, 83, 061119, 2011
[157] Rodriguez-Iturbe, I., K. Caylor, A. RINALDO, Metabolic principles of river basin organization, *Proceedings of the National Academy of Sciences USA (PNAS),* doi: 10.1073/pnas.1107561108, 2011
[156] RINALDO, A., K.J. Beven, E. Bertuzzo, L. Nicotina, J. Davies, A. Fiori, D. Russo, G. Botter, Catchment travel time distributions and water flow in soils, *Water Resources Research*, 47, W07537, 2011
[155] Mari, L., E. Bertuzzo, L. Righetto, R. Casagrandi, M. Gatto, I, Rodriguez-Iturbe, A. RINALDO, Modelling cholera epidemics: the role of waterways, human mobility and sanitation, *Journal of the Royal Society Interface*, doi:10.1098/rsif.2011.0304, 1-13, 2011
[154] Shah, S.H.H., Vervoort, R.W., Suweis, S., Guswa, A.J., A. RINALDO, S.E.A.T.M. Van der Zee, Stochastic modeling of salt accumulation in the root zone due to capillary flux to brackish groundwater, *Water Resources Research*, 47, W09506, 2011
[153] RINALDO, A., M. Blokesch, E. Bertuzzo, L. Mari, L. Righetto, M. Nurray, M.Gatto, R. Casagrandi, I. Rodriguez-Iturbe, A transmission model of the 2010 Cholera epidemic in Haiti, *Annals of Internal Medicine*, 155 (6), 403-404, 2011.
[152] Muneepeerakul, C.P., R. Muneepeerakul, F. Miralles-Wilhelm, A. RINALDO, I. Rodriguez-Iturbe, Dynamics of wetland vegetationunder multiple stresses: a case study of changes in sawgrass trait, structure and productivity under coupled plant-soil-microbe dynamics, Ecohydrology, 4(6), 757-790, 2012.

2010

[151] Azaele, S. A. Maritan, E. Bertuzzo, I. Rodriguez-Iturbe, A. RINALDO, Stochastic Dynamics of Cholera Epidemics, *Physical Review E*, 81(5), 051901, 2010.

[150] Righetto, L., E. Bertuzzo, R. Casagrandi, M. Gatto, I. Rodriguez-Iturbe, A. RINALDO, Modeling human movement in cholera spreading along fluvial systems, *Ecohydrology*, 1, 117-123, 2010.

[149] Todd, J., D. Pumo, S. Azaele, F. Miralles-Wilhelm, A. RINALDO, I. Rodriguez-Iturbe, Hydrological drivers of wetland vegetation community distribution within Everglades National Park, Florida, *Advances in Water Resources*, 33(10), 1279-1289, 2010.

[148] Ceola, S., G. Botter, E. Bertuzzo, A. Porporato, I. Rodriguez-Iturbe, A. RINALDO, Comparative study of ecohydrological streamflow probability distributions, *Water Resources Research*, 46, W09502, 2010

[147] Botter, G. N.B. Basu, S. Zanardo, P.S.C. Rao, A. RINALDO, Stochastic modeling of nutrient losses in streams: interactions of climatic, hydrologic and biogeochemical controls, *Water Resources Research*, 46, W08509, 2010.

[146] Suweis, S., S. Van der Zee, A. Maritan, A. RINALDO, A. Porporato, Stochastic modelling of soil salinity, *Geophysical Research Letters*, 37, L07404, 2010.

[145] Lovison, A., G.M. Manzini, A. Maritan, M. Putti, A. RINALDO, Spanning traceroutes over modular networks and general scaling degree distributions, *Physical Review E*, 81(3), 036105 , 2010

[144] Botter, G., S. Basso, A. Porporato, I. Rodriguez-Iturbe, A. RINALDO, Natural streamflow regime alterations: the damming of the Piave river basin (Italy), Water Resources Research, 46, W06522, 2010.

[143] Botter, G., E. Bertuzzo, A. RINALDO, Transport in the hydrologic response: travel time distributions, soil moisture dynamics and the old water paradox, *Water Resources Research*, 46, W03514, 2010

[142] Suweis, S., E. Bertuzzo, G. Botter, A. Porporato, I. Rodriguez-Iturbe, A. RINALDO, The impact of stochasticity in the storage-discharge relation on streamflow distributions, *Water Resources Research*,46, W03517, 2010

[141] Azaele, S., R. Muneepeerakul, A. RINALDO, I. Rodriguez-Iturbe, Inferring plant ecosystem organization from species occurrences, *Journal of Theoretical Biology*, 262, 323-329, 2010

[140] D'Alpaos, A., S. Lanzoni, M. Marani, A. RINALDO, On the tidal prism - channel area relations, *Journal of Geophysical Research - Earth Surface*, 115, F01003, 2010

[139] Bertuzzo, E., R. Casagrandi, M. Gatto, I. Rodriguez-Iturbe, A. RINALDO, On spatially explicit models of cholera epidemics, *Proceedings of the Royal Society Interface*, 7(43), 321-333, 2010

[138] D'Odorico P., F., A. Porporato, L. Ridolfi, A. RINALDO, I. Rodriguez-Iturbe, Ecohydrology of terrestrial ecosystems, *Bioscience*, 60(11), 898-907, 2010

[137] Marani, M., A. D'Alpaos, S. Lanzoni, L. Carniello, A. RINALDO, The importance of being coupled: Stable states and catastrophic shifts in tidal biomorphodynamics, *Journal of Geophysical Research – Earth Surface*, 115, F04004, 2010

[136] Basu, N.B., G. Destouni, J.W. Jawitz, S.E. Thompson, N.V. Loukinova , A. Darracq, S. Zanardo, M. Yaeger, M. Sivapalan, A. RINALDO, P.S.C. Rao, Nutrient loads exported from managed catchments reveal emergent biogeochemical stationarity, *Geophysical Research Letters*, 37, L23404, 2010

[135] Muneepeerakul, R., S. Azaele, G. Botter, A. RINALDO, I. Rodriguez-Iturbe, Daily streamflow analysis based on a two-scaled gamma pulse model, *Water Resources Research*, 46, W11546, 2010

[134] Banavar, J.R., M.E. Moses, J.H. Brown, J. Damuth, A. RINALDO, R.M. Sibly, A. Maritan, A general basis for quarter-power scaling in animals, *Proceedings of the National Academy of Sciences USA (PNAS),* 107(36), 15816-15820, 2010

[133] McDonnell JJ, McGuire K, Aggarwal P, Beven KJ, Biondi D, Destouni G, Dunn S, James A, Kirchner J, Kraft P, Lyon S, Maloszewski P, Newman B, Pfister L, RINALDO A, Rodhe A, Sayama T, Seibert J, Solomon K, Soulsby C, Stewart M, Tetzlaff D, Tobin C, Troch P, Weiler M, Western A, Worman A, Wrede S, How old is streamwater? Open questions in catchment transit time conceptualization, modelling and analysis, *Hydrological Processes*, 24(12), 1745-1754, 2010

[132] Konar M., R. Muneepeerakul, S. Azaele, E. Bertuzzo, A. RINALDO, I. Rodriguez-Iturbe I, Potential impacts of precipitation change on large-scale patterns of tree diversity, *Water Resources Research*, 46, W11515, 2010

2009

[131] Bertuzzo, E., R. Muneepeerakul, H.J. Lynch, W.F. Fagan, I. Rodriguez-Iturbe, A. RINALDO, On the geographic range of freshwater fish in river basins, *Water Resources Research*, 45, W11420, 2009

[130] Botter, G., A. Porporato, I. Rodriguez-Iturbe, A. RINALDO, Stochastic nonlinear storage-discharge relations and catchment streamflow regimes, *Water Resources Research*, 45, W10427, 2009
[129] D'Alpaos, A., S. Lanzoni, M. Marani, A. RINALDO, On the O'Brien - Jarrett - Marchi law, *Rendiconti Lincei - Scienze Fisiche e Naturali,* 20(3), 225-236, 2009
[128] Convertino, M., R. Muneepeerakul, S. Azaele, E. Bertuzzo, A. RINALDO, I. Rodriguez-Iturbe, On neutral metacommunity patterns of river basins at different scales of aggregation, *Water Resources Research*, 45, W08424, 2009
[127] Azaele, S., R. Muneepeerakul, A. Maritan, A. RINALDO, I. Rodriguez-Iturbe, Predicting spatial similarity of freshwater fish biodiversity, *Proceedings of the US National Academy of Sciences*, 106(17), 7058-7062, 2009
[126] Simini, F., A. RINALDO, A. Maritan, Universal scaling of optimal current distributions in transportation networks, *Physical Review E*, 79, 046110, 2009
[125] Botter, G., S. Milan, M. Marani, A. RINALDO, Inferences from catchment-scale tracer circulation experiments, *Journal of Hydrology*, 369 (3-4), 368-380, 2009
[124] Rodriguez-Iturbe, I., R. Muneepeerakul, E. Bertuzzo, S.A. Levin, A. RINALDO, River networks as ecological corridors: a complex systems perspective for integrating hydrologic, geomorphologic and ecologic dynamics, *Water Resources Research*, 45, W01413, 2009.

2008
[123] Muneepeerakul, R., E. Bertuzzo, H. Lynch, W.F. Fagan, A. RINALDO, I. Rodriguez-Iturbe, Neutral metacommunity models predict fish diversity patterns in Mississippi-Missouri basin, *Nature*, 453, 220-224, 2008.
[122] RINALDO, A., L. Nicotina, E. Alessi Celegon, F. Beraldin, G. Botter, L. Carniello, G. Cecconi, A. Defina, T. Settin, A. Uccelli, L. D'Alpaos, M. Marani, Sea level rise, hydrologic runoff and the flooding of Venice, *Water Resources Research*, 44, W12434, 2008
[121] Nicotina, L., E. Alessi Celegon, A. RINALDO, M. Marani, On the impact of rainfall patterns on the hydrologic response, *Water Resources Research*, 44, W12401, 2008
[120] Botter, G., S. Zanardo, A. Porporato, I. Rodriguez-Iturbe, A. RINALDO, Ecohydrological model of flow duration curves and annual minima, *Water Resources Research*, 44, W08418, 2008.
[119] Muneepeerakul, C.P., F. Miralles-Wilhelm, S. Tamea, A. RINALDO, I. Rodriguez-Iturbe, Coupled hydrologic and vegetation dynamics in wetland ecosystems, *Water Resources Research*, 44(7), W07421 , 2008.
[118] Muneepeerakul, R., E. Bertuzzo, A. RINALDO, I. Rodriguez-Iturbe, Patterns of vegetation biodiversity: The roles of dispersal directionality and river network structure, *Journal of Theoretical Biology*, 252, 221–229, 2008
[117] Botter, G., R. Peratoner, M. Putti, A. Zuliani, R. Zonta, M. Marani, A. RINALDO, Catchment scale solute transport in the hydrologic response: a tracer study, *Water Resources Research*, 44, W05409, 2008.
[116] Botter, G., E. Daly, A. Porporato, I. Rodriguez-Iturbe, A. RINALDO, Probabilistic dynamics of soil nitrate: the coupling of eco-hydrological and bio-geochemical processes, *Water Resources Research*, 44, W03416, 2008.
[115] Muneepeerakul, R., A. RINALDO, S.A. Levin, I. Rodriguez-Iturbe, Signatures of vegetational functional diversity in river basins, *Water Resources Research*, 44, W01431, 2008
[114] Bertuzzo, E., M. Gatto, A. Maritan, S, Azaele, I. Rodriguez-Iturbe, A. RINALDO, On the space-time evolution of a cholera epidemics, *Water Resources Research*, 44, W01424, 2008

From 2007 backwards

[113] Muneepeerakul, R., A. RINALDO, I. Rodriguez-Iturbe, The effects of river flow scaling properties on riparian width and vegetation biomass, *Water Resources Research*, 43(12), W12406, 2007
[112] Convertino, M., R. Rigon, A. Maritan, I. Rodriguez-Iturbe, A. RINALDO, The probabilistic structure of the distance between tributaries of given size in river networks, *Water Resources Research*, 43(11), W12406, 2007
[111] Botter, G., F. Peratoner, A. Porporato, I. Rodriguez-Iturbe, A. RINALDO, Signatures of large-scale soil moisture dynamics on streamflow statistics across U.S. climate regimes, *Water Resources Research*, 43(11), W11418, 2007
[110] Marani, M., A. D'Alpaos, S. Lanzoni, L. Carniello, A. RINALDO, Biologically- controlled multiple equilibria of tidal landforms and the fate of the Venice lagoon, *Geophysical Research Letters*, 34, L11402, 2007
[109] Muneepeerakul, R., S.A. Levin, A. RINALDO, I. Rodriguez-Iturbe, On biodiversity in river networks: a trade-off metapopulation model and comparative analysis, *Water Resources Research*, 43(7), W07426, 2007

[108] D'Alpaos, A., A. Bonometto, S. Lanzoni, M. Marani, G. Cecconi, A. RINALDO, Spontaneous tidal network formation within a constructed salt marsh: observations and morphodynamic modelling, *Geomorphology*, 91, 186-197, 2007
[107] Settin, T., G. Botter, I. Rodriguez-Iturbe, A. RINALDO, Numerical studies on soil moisture distributions in heterogeneous catchments, *Water Resources Research*, 43, W05425, 2007
[106] Banavar, J.R., J. Damuth, A. Maritan, A. RINALDO, Scaling in ecosystems and the linkage of macroecological laws, *Physical Review Letters*, 98, 068104, 1-4, 2007
[105] Botter, G., A. Porporato. E. Daly, I. Rodriguez-Iturbe, A. RINALDO, Probabilistic characterization of base flows in river basins: roles of soil, vegetation and geomorphology, *Water Resources Research*, 43, W06404, 2007
[104] Bertuzzo, E., M. Gatto, A. Maritan, I. Rodriguez-Iturbe, A. RINALDO, River networks and ecological corridors: reactive transport on fractals, migration fronts, hydrochory, *Water Resources Research*, 43, W04419, 2007
[103] Botter, G., A. Porporato, I. Rodriguez-Iturbe, A. RINALDO, Basin-scale soil moisture dynamics and the probabilistic characterization of carrier hydrologic flows: slow, leaching prone component of the hydrologic response, *Water Resources Research*, 43, W02417, 2007
[102] D'Alpaos, A., S. Lanzoni, M. Marani, A. RINALDO, Landscape evolution in tidal embayments, *Journal of Geophysical Research - Earth Surface*, 112, F01008, 2007
[101] Muneepeerakul, R., J. Weitz, S.A. Levin, A. RINALDO, I. Rodriguez-Iturbe, A neutral metapopulation model of riparian biodiversity, *Journal of Theoretical Biology*, 245, 351-363, 2007
[100] RINALDO, A., Rain, rivers and turbulence: a view from hydrology, *Water Resources Research*, 42, W06D01, 2006
[99] Botter, G., T. Settin, M. Marani, A. RINALDO, A stochastic model of Nitrate transport and cycling at basin scale, *Water Resources Research*, 42, W04415, 2006
[98] Banavar, J.R., A. Maritan, A. RINALDO, Comment on "Revising the distributive networks model of West, Brown and Enquist (1997) and Banavar, Maritan and Rinaldo (1999): Metabolic Inequity of Living Tissues Provides Clues for the Observed Allometric Scaling Rules" by Makarieva, Gorshov and Li, *Journal of Theoretical Biology*, 239, 391-393, 2006
[97] RINALDO, A., E. Bertuzzo, G. Botter, T. Settin, A. Uccelli, and M. Marani, Transport at Basin Scales 2. Applications, *Hydrology and Earth System Sciences*, 10, 31-48, 2006
[96] RINALDO, A., E. Bertuzzo, G. Botter, T. Settin, A. Uccelli, and M. Marani, Transport at Basin Scales 1. Theoretical Framework, *Hydrology and Earth System Sciences*, 10, 19-29, 2006
[95] Marani, M., E. Belluco, S. Ferrari, S. Silvestri, A. D'Alpaos, S. Lanzoni, A. RINALDO, Analysis, synthesis and modelling of high-resolution observations of salt-marsh ecogeomorphological patterns in the Venice lagoon, *Estuarine, Coastal and Shelf Science*, 69 (3-4), 414-426, 2006
[94] RINALDO, A., J.R. Banavar, A. Maritan, Trees, networks and hydrology, *Water Resources Research*, 42, W06D07, 1-14, 2006
[93] Feola, A., E. Belluco, S. Lanzoni, A. Marani, A. RINALDO, A geomorphic study of lagoonal landforms, *Water Resources Research*, 41, W06019, 1-11, 2005
[92] Botter, G., E. Bertuzzo, A. Bellin, A. RINALDO, On the Lagrangian formulations of reactive solute transport in the hydrologic response, {\it Water Resources Research}, 41(4), 1-13, 2005
[91] D'Alpaos, A., S. Lanzoni, M. Marani, S. Fagherazzi, A. RINALDO, Tidal network ontogeny: channel initiation and early development, *Journal of Geophysical Research*, 110, F2, 1-18, 2005
[90] RINALDO, A., E. Bertuzzo, G. Botter, Nonpoint source transport models from empiricism to coherent theoretical frameworks, *Ecological Modelling*, 184, 19-35, 2005
[89] Marani, M., E. Belluco, A. D'Alpaos, S. Lanzoni, S. Silvestri, A. RINALDO, Tidal landforms, patterns of halophytic vegetation and the fate of the lagoon of Venice, *Journal of Marine Systems*, 51, 191-210, 2004
[88] RINALDO, A., J.R. Banavar, V. Colizza, A. Maritan, On network form and function, *Physica A*, 340/4, 749-755, 2004
[87] Colizza, V., J.R. Banavar, A. Maritan, A. RINALDO, Network structures from selection principles, *Physical Review Letters*, 92(19), 198701, 2004
[86] Botter, G., A. RINALDO, Scale effect on geomorphologic and kinematic dispersion, *Water Resources Research*, 39(9), 2154, 2003
[85] Banavar, J.R., J. Damuth, A. Maritan, A. RINALDO, Allometric cascades, *Nature*, 421 (6924), 713-714, 2003
[84] Marani, M., S. Lanzoni, E. Belluco, A. D'Alpaos, A. Defina, A. RINALDO, The drainage density of tidal networks, *Water Resources Research*, 39(2), 105, 2003
[83] Banavar, J.R., J. Damuth, A. Maritan, A. RINALDO, Scaling and universality in ontogenetic growth, *Nature*, 420 (6916), 626-627, 2002

[82] Banavar, J.R., J. Damuth, A. Maritan, A. RINALDO, Modelling universality and scaling, *Nature*, 420, 626, 2002
[81] RINALDO, A., A. Maritan, K. Cavender-Bares, S.W. Chisholm, Cross-scale ecological dynamics and microbial size spectra in marine ecosystems, *Proceedings of the Royal Society B*, 269, 2051-2059, 2002
[80] Banavar, J.R., J. Damuth, A., Maritan, A. RINALDO, Supply-demand balance and metabolic scaling, *Proceedings of the US National Academy of Sciences*, 99(16), 10506-10509, 2002
[79] Marani, M., G. Seminara, S. Lanzoni, A. RINALDO, Tidal meanders, *Water Resources Research*, 38 (11), 1225, 2002
[78] Maritan, A., R. Rigon, J.R. Banavar, A. RINALDO, Network allometry, *Geophysical Research Letters*, 29(11), 3, 1-4, 2002
[77] Solari, L., G. Seminara, S. Lanzoni, M. Marani, A. RINALDO, Sand bars in tidal channels 2. Tidal meanders, *Journal of Fluid Mechanics*, 451(1), 203-238, 2002
[76] Marani, M., E. Eltahir, A. RINALDO, Geomorphic controls on regional baseflow, *Water Resources Research*, 37(10), 2619-2630, 2001
[75] Banavar, J.R., F. Colaiori, A. Flammini, A. Maritan, A. RINALDO, Scaling, optimality and landscape evolution, *Journal of Statistical Physics*, 104 (1/2), 1-48, 2001
[74] Cavender-Bares, K., A. RINALDO, S.W. Chisholm, Microbial size spectra from marine ecosystems, *Limnology & Oceanography*}, 46(4), 778-789, 2001
[73] Niemann, J.D., R. L. Bras, D. Veneziano, A. RINALDO, Impacts of surface elevation on the growth and scaling properties of simulated river networks, *Geomorphology*, 40, 37-55, 2001
[72] Bras, R.L., D.R.F. Harleman, A. {\sc Rinaldo}, P. Malanotte Rizzoli, Rescuing Venice from a watery grave, *Science*, 291, 2315-2316, 2001
[71] Banavar, J.R., A. Maritan, A A. RINALDO, Rivers, blood and transportation networks, *Nature*, 408, 159-160, 2000
[70] Tucker, G., F. Catani, A. RINALDO, R.L. Bras, Statistical analysis of drainage density from digital terrain data, *Geomorphology*, 36(3-4), 187-202, 2000
[69] Banavar, J.R., A. Maritan, A. RINALDO, Topology of the fittest network, *Physical Review Letters*, 84(20), 4745-4748, 2000
[68] Harleman, D.R.F., R. Bras, A. RINALDO, P. Malanotte Rizzoli, Blocking the tide, *Civil Engineering*, 70(10), 52-57, 2000
[67] Banavar, J.R., A. Maritan, A. RINALDO, Size and form in efficient transportation networks, *Nature*, 399, 130-132, 1999
[66] RINALDO, A., Hydraulic networks in nature, *Journal of Hydraulic Research*, 37, 861-859, 1999
[65] Fagherazzi, S., A. Bortoluzzi, W.E. Dietrich, A. Adami, M. Marani, S. Lanzoni, A. RINALDO, Tidal networks. 1. Automatic network extraction and preliminary scaling features from DTMs, *Water Resources Research*, 35(12), 3891-3904, 1999
[64] RINALDO, A., S. Fagherazzi, A. Bortoluzzi, A. Adami, M. Marani, S. Lanzoni, , W.E. Dietrich, Tidal networks. 2. Watershed delineation and comparative network morphology, *Water Resources Research*, 35(12), 3905-3917, 1999
[63] RINALDO, A., S. Fagherazzi, M. Marani, S. Lanzoni, W.E. Dietrich, Tidal networks. 3. Landscape-forming discharges and studies in empirical geomorphic relationships, *Water Resources Research*, 35(12), 3919-3929, 1999
[62] Rodriguez-Iturbe, I., P. D'Odorico and A. RINALDO, Possible self-organization of land-atmosphere interactions, *Journal of Geophysical Research*, 103, 23071-23077, 1998
[61] Rodriguez-Iturbe, I., M. Marani, P. D'Odorico, A. RINALDO, On space-time scaling of cumulated rainfall fields, *Water Resources Research*, 34, 3461-3470, 1998
[60] Bellin, A., A. RINALDO, W.J.P. Bosma, S.E.A.T.M. van der Zee, Y. Rubin, Linear equilibrium adsorbing solute transport in physically and chemically heterogeneous porous formations 1. Analytical solutions, Reply, *Water Resources Research*, 34, 3705-3708, 1998
[59] Rigon, R., I. Rodriguez-Iturbe, A. RINALDO, Feasible optimality implies Hack's law, *Water Resources Research*, 34, 3181-3190, 1998
[58] Marani, M., A. Maritan, G. Caldarelli, J.A. Banavar, A. RINALDO, Stationary self-organized fractal structures in potential force fields, *Journal of Physics A Mat. Gen.*, 31, 337-343, 1998
[57] Rodriguez-Iturbe, I., P. D'Odorico, A. RINALDO, Configurational entropy and fractal landscapes, *Geophysical Research Letters*, 25(7), 1015-1018, 1998
[56] Cieplak, M., A. Giacometti, A. Maritan, I. Rodriguez-Iturbe, J.R. Banavar, A. RINALDO, Models of fractal river networks, *Journal of Statistical Physics*, 91, 1-15, 1998
[55] RINALDO, A., I. Rodriguez-Iturbe, Channel networks, *Annual Review of Earth and Planetary Sciences*, 26, 289-327, 1998

[54] Caldarelli, G., A. Giacometti, A. Maritan, I. Rodriguez-Iturbe, A. RINALDO, Randomly pinned landscape evolution, *Physical Review E*, 55, 4865-4869, 1997
[53] - Banavar, J.A., F. Colaiori, A. Flammini, A. Giacometti, A. Maritan, A. RINALDO, Sculpting of a fractal river basin, *Physical Review Letters*, 78(23), 4522-4525, 1997
[52] Rigon, R., I. Rodriguez-Iturbe, A. Giacometti, A. Maritan, A. RINALDO, On Hack's law, *Water Resources Research*, 32, 11, 3367-3374, 1996
[51] Bellin, A., M. Pannone, A. Fiori, A. RINALDO, On transport in porous formations characterized by heterogeneity of evolving scales, *Water Resources Research*, 32, 12, 3485-3496, 1996
[50] RINALDO, A., A. Maritan, A. Flammini, F. Colaiori, A. R. Rigon, I. Rodriguez-Iturbe e J.R. Banavar, Thermodynamics of fractal networks, *Physical Review Letters*, 76, 3364-3368, 1996
[49] Maritan, A., A. RINALDO, I. Rodriguez-Iturbe, R. Rigon, A. Giacometti, Scaling in river networks, *Physical Review E*, 53, 1501-1513, 1996
[48] RINALDO, A. and I. Rodriguez-Iturbe, The geomorphological theory of the hydrologic response, *Hydrological Processes*, 10(6), 803-844, 1996
[47] RINALDO, A., W.E. Dietrich, G. Vogel, R. Rigon, I. Rodriguez-Iturbe, Geomorphological signatures of varying climate, *Nature*, 374, 632-636, 1995
[46] Rodriguez-Iturbe, I., G.K. Vogel, R. Rigon, D. Entekhabi, F. Castelli, A. RINALDO, On the spatial organization of soil moisture fields, *Geophysical Research Letters*, 22(20), 2757-2760, 1995
[45] Bellin, A., A. RINALDO, Analytical solutions for transport of linearly adsorbing solutes in heterogeneous formations, *Water Resources Research*, 31(6), 1505-1511, 1995
[44] RINALDO, A., G.K. Vogel, R. Rigon, I. Rodriguez-Iturbe, Can one gauge the shape of a basin?, *Water Resources Research*, 31, 1119-1128, 1995
[43] Marani, M., A. RINALDO, R. Rigon, I. Rodriguez-Iturbe, Geomorphological width functions and the random cascade, *Geophysical Research Letters*, 21(19), 2123-2126, 1994
[42] Rodriguez-Iturbe, I., M. Marani, R. Rigon, A. RINALDO, Self-organized river basin landscapes: fractal and multifractal characteristics, *Water Resources Research*, 30(12), 3531-3539, 1994
[41] Bosma, W.J., S.E.A.T.M. Van der Zee, A. Bellin, A. RINALDO, Instantaneous injection on nonlinearly adsorbing solute in a heterogeneous aquifer, *Water Resources Research*, 30(11), 3004-3012, 1994
[40] Rigon, R., A. RINALDO, I. Rodriguez-Iturbe, On landscape self-organization, *Journal of Geophysical Research*, 99(B06), 11971-11993, 1994
[39] Bellin, A., Y. Rubin, A. RINALDO, Eulerian - Lagrangian approach for modeling of flow in heterogeneous geological formations, *Water Resources Research*, 30(11), 2913-2919, 1994
[38] Bosma, W.J.P., A. Bellin, S. E. A. T. M. Van der Zee, A. RINALDO, Linear equilibrium adsorbing solute transport in chemically and physically heterogeneous porous formations. 2. Numerical results, *Water Resources Research*, 29(12), 4031-4044, 1993
[37] Bellin, A., A. RINALDO, W.J. Bosma, S. E. A. T. M. Van der Zee, Y. Rubin, Linear equilibrium adsorbing solute transport in chemically and physically heterogeneous porous formations. 1. Analytical solutions, *Water Resources Research*, 29(12), 4019-4030, 1993
[36] RINALDO, A., I. Rodriguez-Iturbe, R. Rigon, R.L. Bras, E. Ijjasz-Vasquez, Self-organized fractal river networks, *Physical Review Letters*, 70, 1222-1226, 1993
[35] Ijjasz-Vasquez, E., R.L. Bras, I. Rodriguez-Iturbe, R. Rigon, A. RINALDO, Are river basins optimal channel networks?, *Advances in Water Resources*, 16, 69-79, 1993
[34] Rigon, R., A. RINALDO, I. Rodriguez-Iturbe, E. Ijjasz-Vasquez, R.L. Bras, Optimal channe networks: a framework for the study of river basin morphology, *Water Resources Research*, 29(6), 1635-1646, 1993
[33] Rodriguez-Iturbe, I., A. RINALDO, R. Rigon, R.L. Bras, E. Ijjasz-Vasquez, A. Marani, Fractal structures as least energy dissipation patterns: the case of river networks, *Geophysical Research Letters*, 5, 2854-2860, 1992
[32] RINALDO, A., I. Rodriguez-Iturbe, R. Rigon, R.L. Bras, E. Ijjasz-Vasquez, A. Marani, Minimum energy and fractal structures of river networks, *Water Resources Research*, 28 (9), 2183-2195, 1992
[31] Bellin, A., P. Salandin, A. RINALDO, Dispersion in heterogeneous porous formations: statistics, first-order theories, convergence of computations, *Water Resources Research*, 28(9), 2211-2227, 1992
[30] Rodriguez-Iturbe, I., A. RINALDO, R. Rigon, R.L. Bras, E. Ijjasz-Vasquez, Energy dissipation, runoff production and the 3-D structure of channel networks, *Water Resources Research*, 28 (4), 1095-1103, 1992
[29] Fiorotto, V., A. RINALDO, Turbulent pressure fluctuations past hydraulic jumps, *Journal of Hydraulic Research*, 30, 499-520, 1992
[28] Fiorotto, V., A. RINALDO, Fluctuating uplift and linings design in spillway stilling basins, *ASCE Journal of Hydraulic Engineering*, Vol. 118 (4), 578-596, 1992

[27] Salandin, P., A. RINALDO, G. Dagan, A note on transport in stratified formations by flow tilted with respect to the bedding, *Water Resources Research*, 27 (11), 3009-3117, 1991
[26] Marani, A., R. Rigon, A. RINALDO, A note on fractal channel networks, *Water Resources Research*, 27(12), 3041-3049, 1991
[25] Salandin, P., A. RINALDO, Transport of passive solutes in heterogeneous isotropic porous formations, *Excerpta*, 5, 57-92, 1991
[24] RINALDO, A., A. Marani, R. Rigon, Geomorphological dispersion, *Water Resources Research*, 28 (4), 513-525, 1991
[23] Fiorotto, V., A. RINALDO, Karnafuli project, model studies on spillway damage, Discussion, *ASCE Journal of Hydraulic Engineering*, 116(6), 850-852, 1990
[22] Sartoretto, F., G. Gambolati, A. RINALDO, Land subsidence due to gas/oil production in homogeneous transversally anisotropic half-space by a boundary element method, *International Journal for Numerical and Analytical Methods in Geomechanics*, 14, 379-399, 1990
[21] Fiorotto, V., A. RINALDO, Sul dimensionamento delle protezioni di fondo in bacini di dissipazione: nuovi risultati teorici e sperimentali, *Giornale del Genio Civile*, 7-8-9, 179-201, 1989
[20] Salandin, P., A. RINALDO, The influence of the form of the log-conductivity covariance on non-Fickian dispersion in random permeability fields, *International Journal for Numerical Methods in Engineering*, 27, 185-193, 1989
[19] RINALDO, A., A. Marani, A. Bellin, On Mass Response Functions, *Water Resources Research*, 25 (8), 1603-1617, 1989
[18] RINALDO, A., A. Bellin, A. Marani, A study on solute NO_3-N transport in the hydrologic response by a MRF model, *Ecological Modelling*, 48, 159-191, 1989
[17] Datei, C., L. Natale, A. RINALDO, A survey of flood studies on dam hydrology, *Idrotecnica*, 2, 73-80, 1988.
[16] Gambolati, G., F. Sartoretto, A. RINALDO, G. Ricceri, A boundary element solution to land subsidence above 3-D gas/oil reservoirs, *International Journal for Numerical and Analytical Methods in Geomechanics*, 11, 489-502, 1987
[15] RINALDO, A., M. Putti, On residual currents in schematic tidal expansions, *Excerpta*, 2, 39-45, 1988
[14] RINALDO, A., A. Marani, Basin scale model of solute transport, *Water Resources Research*, 23 (11), 2107-2118, 1987
[13] RINALDO, A., Stability of the linings of spillway stilling basins, *Excerpta*, Vol. 1, 43 - 55 , 1987
[12] RINALDO, A., Un criterio di dimensionamento delle protezioni di fondo in bacini di dissipazione, *Giornale del Genio Civile*, 4-5-6, 70-91, 1985
[11] Zingales, F., A. Marani, A. RINALDO, G. Bendoricchio, A conceptual model of unit-mass response function for nonpoint source pollutant runoff, *Ecological Modelling*, 26, 285-311, 1984
[10] Da Deppo, L., C. Datei, V. Fiorotto, A. RINALDO, Capacity and type of units for small hydroplants, *International Journal for Water Power & Dam Construction*, 1, 25-29, 1984
[9] Datei, C., A. RINALDO, Le resistenze al moto nelle condotte di grande diametro, *Ingegneria Sanitaria*, 2, 32 - 41, 1984
[8] RINALDO, A., A. Giorgini, A mixed algorithm for the calculation of rapidly varying fluid flows: the impulsively started circular cylinder, *International Journal for Numerical Methods in Fluids*, 4, 949 - 969, 1984
[7] Rao, Ramachandra A., R.H. Lee, A. RINALDO, Spectra of road surface roughness on bridges, Discussion, *ASCE Journal of Structural Engineering*, 10, 1201 - 1217, 1983
[6] Giorgini, A., A. RINALDO, Computational model for the Ohio river chutes at Louisville (KY): the 1792 virgin conditions, *Transactions of the Journal of the Instrument Society of America*, 8, 25-32, 1983
[5] Zingales, F., S. Alessandrini, G. Bendoricchio, C. Comis, A. Marani, F. Pianetti, A. RINALDO, C. Sartori-Borotto, Simulazione del dilavamento di sostanze chimiche da terreni agricoli, *Inquinamento*, 23(10), 2-7, 1981
[4] Zingales, F., S. Alessandrini, G. Bendoricchio, C. Comis, A. Marani, F. Pianetti, A. RINALDO, C. Sartori-Borotto, S. Zanin, Inquinamento delle acque da sorgenti diffuse: analisi statistiche, *Inquinamento*, 13 (1), 1-4, 1981
[3] Zingales, F., G. Bendoricchio, A. Marani, A. RINALDO, C. Sartori-Borotto, S. Zanin, Inquinamento dovuto alle acque di un bacino agricolo sversate nella Laguna di Venezia, *Inquinamento*, 12 (12), 1-8, 1980
[2] Da Deppo, L., A. RINALDO, Choosing the number and length of adits for a long tunnel, *International Journal for Water Power* & *Dam Construction*, 33 (9), 36-39, 1981
[1] D'Alpaos, L., A. RINALDO, Effetti di nonlinearità e varianza in un modello di generazione delle piene: un criterio di stima, *L'Energia Elettrica*, 4 (57), 1-7, 1980