Monica Riva

List of Publications by Year
in descending order

121 papers	2,843 citations	249298 26 h-index	242451 47 g-index
125 all docs	125 docs citations	125 times ranked	2838 citing authors

#	Article	IF	Citations
1	Sensitivity Analysis and Quantification of the Role of Governing Transport Mechanisms and Parameters in a Gas Flow Model for Low-Permeability Porous Media. Transport in Porous Media, 2022, 142, 509-530.	1.2	3
2	Probabilistic identification of Preferential Groundwater Networks. Journal of Hydrology, 2022, 610, 127906.	2.3	10
3	Macrodispersion in generalized sub-Gaussian randomly heterogeneous porous media. International Journal of Heat and Mass Transfer, 2022, 195, 123117.	2.5	1
4	An original deconvolution approach for oil production allocation based on geochemical fingerprinting. Fuel, 2022, 327, 124715.	3.4	0
5	Natural springs protection and probabilistic risk assessment under uncertain conditions. Science of the Total Environment, 2021, 751, 141430.	3.9	2
6	Solute transport in bounded porous media characterized by generalized sub-Gaussian log-conductivity distributions. Advances in Water Resources, 2021, 147, 103812.	1.7	5
7	Data assimilation with multiple types of observation boreholes via the ensemble Kalman filter embedded within stochastic moment equations. Hydrology and Earth System Sciences, 2021, 25, 1689-1709.	1.9	4
8	Uncertainty Analysis and Identification of Key Parameters Controlling Bacteria Transport Within a Riverbank Filtration Scenario. Water Resources Research, 2021, 57, e2020WR027911.	1.7	12
9	Analysis of the performance of a crude-oil desalting system based on historical data. Fuel, 2021, 291, 120046.	3.4	21
10	Statistical Characterization of Heterogeneous Dissolution Rates of Calcite from In situ and Real-Time AFM Imaging. Transport in Porous Media, 2021, 140, 291-312.	1.2	6
11	Impact of multiple uncertainties on gravimetric variations across randomly heterogeneous aquifers during pumping. Advances in Water Resources, 2021, 154, 103978.	1.7	3
12	Formulation and probabilistic assessment of reversible biodegradation pathway of Diclofenac in groundwater. Water Research, 2021, 204, 117466.	5.3	9
13	Features of transport in non-Gaussian random porous systems. International Journal of Heat and Mass Transfer, 2021, 184, 122244.	2.5	2
14	Implementation of Three-Phase Black-Oil Reservoir Models Assisted by Micro-Scale Analyses. , 2020, , .		0
15	Copula density-driven metrics for sensitivity analysis: Theory and application to flow and transport in porous media. Advances in Water Resources, 2020, 145, 103714.	1.7	4
16	Quantification of the information content of Darcy fluxes associated with hydraulic conductivity fields evaluated at diverse scales. Advances in Water Resources, 2020, 145, 103730.	1.7	2
17	Impact of geostatistical reconstruction approaches on model calibration for flow in highly heterogeneous aquifers. Stochastic Environmental Research and Risk Assessment, 2020, 34, 1591-1606.	1.9	5
18	Probabilistic indicators for soil and groundwater contamination risk assessment. Ecological Indicators, 2020, 115, 106424.	2.6	17

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19	Generalized Sub‑Gaussian Processes: Theory and Application to Hydrogeological and Geochemical Data. Water Resources Research, 2020, 56, e2020WR027436.	1.7	10
20	Global Sensitivity Analysis for Multiple Interpretive Models With Uncertain Parameters. Water Resources Research, 2020, 56, e2019WR025754.	1.7	17
21	Interpretation of multi-scale permeability data through an information theory perspective. Hydrology and Earth System Sciences, 2020, 24, 3097-3109.	1.9	2
22	Pore-scale velocities in three-dimensional porous materials with trapped immiscible fluid. Physical Review E, 2019, 100, 043101.	0.8	10
23	Grid convergence for numerical solutions of stochastic moment equations of groundwater flow. Stochastic Environmental Research and Risk Assessment, 2019, 33, 1565-1579.	1.9	4
24	Stochastic inverse modeling and global sensitivity analysis to assist interpretation of drilling mud losses in fractured formations. Stochastic Environmental Research and Risk Assessment, 2019, 33, 1681-1697.	1.9	10
25	Twenty-three unsolved problems in hydrology (UPH) – a community perspective. Hydrological Sciences Journal, 2019, 64, 1141-1158.	1.2	474
26	Global sensitivity analyses of multiple conceptual models with uncertain parameters driving groundwater flow in a regional-scale sedimentary aquifer. Journal of Hydrology, 2019, 574, 544-556.	2.3	37
27	Identification of Channeling in Pore‑Scale Flows. Geophysical Research Letters, 2019, 46, 3270-3278.	1.5	11
28	Solute transport in random composite media with uncertain dispersivities. Advances in Water Resources, 2019, 128, 48-58.	1.7	5
29	Hysteresis effects of three-phase relative permeabilities on black-oil reservoir simulation under WAG injection protocols. Journal of Petroleum Science and Engineering, 2019, 176, 1161-1174.	2.1	17
30	Statistical modeling of gas-permeability spatial variability along a limestone core. Spatial Statistics, 2019, 34, 100249.	0.9	9
31	Space-time mesh adaptation for solute transport in randomly heterogeneous porous media. Journal of Contaminant Hydrology, 2018, 212, 28-40.	1.6	3
32	Solute dispersion for stable density-driven flow in randomly heterogeneous porous media. Advances in Water Resources, 2018, 111, 329-345.	1.7	4
33	Recent advances in scalable non-Gaussian geostatistics: The generalized sub-Gaussian model. Journal of Hydrology, 2018, 562, 685-691.	2.3	19
34	Groundwater withdrawal in randomly heterogeneous coastal aquifers. Hydrology and Earth System Sciences, 2018, 22, 2971-2985.	1.9	21
35	Propagation to Reservoir Simulation of Uncertainty Associated with Three-Phase Relative Permeability Models with Hysteresis. , 2018, , .		5
36	Theoretical analysis of non‑<scp>G</scp>aussian heterogeneity effects on subsurface flow and transport. Water Resources Research, 2017, 53, 2998-3012.	1.7	16

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37	Solute concentration at a well in non-Gaussian aquifers under constant and time-varying pumping schedule. Journal of Contaminant Hydrology, 2017, 205, 37-46.	1.6	10
38	Identifiability of parameters of three-phase oil relative permeability models under simultaneous water and gas (SWAG) injection. Journal of Petroleum Science and Engineering, 2017, 159, 942-951.	2.1	10
39	Influence of capillary end effects on steady-state relative permeability estimates from direct pore-scale simulations. Physics of Fluids, 2017, 29, .	1.6	17
40	Moment-based metrics for global sensitivity analysis of hydrological systems. Hydrology and Earth System Sciences, 2017, 21, 6219-6234.	1.9	55
41	Effects of Pore-Scale Geometry and Wettability on Two-Phase Relative Permeabilities within Elementary Cells. Water (Switzerland), 2017, 9, 252.	1.2	8
42	An Approach Towards a FEP-based Model for Risk Assessment for Hydraulic Fracturing Operations. Energy Procedia, 2016, 97, 387-394.	1.8	8
43	Comparative assessment of threeâ€phase oil relative permeability models. Water Resources Research, 2016, 52, 5341-5356.	1.7	14
44	Theory and generation of conditional, scalable sub-Gaussian random fields. Water Resources Research, 2016, 52, 1746-1761.	1.7	12
45	Identification of groundwater flow parameters using reciprocal data from hydraulic interference tests. Journal of Hydrology, 2016, 539, 88-101.	2.3	9
46	Integration of Markov mesh models and data assimilation techniques in complex reservoirs. Computational Geosciences, 2016, 20, 637-653.	1.2	3
47	Analytical expressions for three-phase generalized relative permeabilities in water- and oil-wet capillary tubes. Computational Geosciences, 2016, 20, 555-565.	1.2	4
48	New scaling model for variables and increments with heavyâ€tailed distributions. Water Resources Research, 2015, 51, 4623-4634.	1.7	25
49	Scalable statistics of correlated random variables and extremes applied to deep borehole porosities. Hydrology and Earth System Sciences, 2015, 19, 729-745.	1.9	13
50	Direct numerical simulation of fully saturated flow in natural porous media at the pore scale: a comparison of three computational systems. Computational Geosciences, 2015, 19, 423-437.	1.2	12
51	Detecting the vulnerability of groundwater in semi-confined aquifers using barometric response functions. Journal of Hydrology, 2015, 520, 143-156.	2.3	18
52	Anti-correlated Porosityâ€"Permeability Changes During the Dissolution of Carbonate Rocks: Experimental Evidences and Modeling. Transport in Porous Media, 2015, 107, 595-621.	1.2	48
53	Simulation and analysis of scalable non-Gaussian statistically anisotropic random functions. Journal of Hydrology, 2015, 531, 88-95.	2.3	13
54	Prediction of three-phase oil relative permeability through a sigmoid-based model. Journal of Petroleum Science and Engineering, 2015, 126, 190-200.	2.1	18

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55	EnKF coupled with groundwater flow moment equations applied to Lauswiesen aquifer, Germany. Journal of Hydrology, 2015, 521, 205-216.	2.3	26
56	Probabilistic assessment of seawater intrusion under multiple sources of uncertainty. Advances in Water Resources, 2015, 75, 93-104.	1.7	31
57	Three-Phase Permeabilities: Upscaling, Analytical Solutions and Uncertainty Analysis in Elementary Pore Structures. Transport in Porous Media, 2015, 106, 259-283.	1.2	9
58	Impact of Agromanagement Practices on Rice Elongation: Analysis and Modelling. Crop Science, 2014, 54, 2294-2302.	0.8	1
59	Relationship between pore size and velocity probability distributions in stochastically generated porous media. Physical Review E, 2014, 89, 013018.	0.8	53
60	Statistical scaling of pore-scale Lagrangian velocities in natural porous media. Physical Review E, 2014, 90, 023013.	0.8	16
61	Impact of two geostatistical hydro-facies simulation strategies on head statistics under non-uniform groundwater flow. Journal of Hydrology, 2014, 508, 343-355.	2.3	16
62	Statistical Scaling of Geometric Characteristics in Millimeter Scale Natural Porous Media. Transport in Porous Media, 2014, 101, 465-475.	1.2	12
63	Inverse modeling of geochemical and mechanical compaction in sedimentary basins through Polynomial Chaos Expansion. Water Resources Research, 2014, 50, 9414-9431.	1.7	15
64	Comparison of Ensemble Kalman Filter groundwater-data assimilation methods based on stochastic moment equations and Monte Carlo simulation. Advances in Water Resources, 2014, 66, 8-18.	1.7	28
65	Anisotropic statistical scaling of soil and sediment texture in a stratified deep vadose zone near Maricopa, Arizona. Geoderma, 2014, 214-215, 217-227.	2.3	26
66	Estimation of spatial covariance of log conductivity from particle size data. Water Resources Research, 2014, 50, 5298-5308.	1.7	13
67	Investigation of Saturation Dependency of Oil Relative Permeability during WAG Process through Linear and Non-linear PCA. , 2014, , .		5
68	Ensemble Kalman Filter Assimilation of Transient Groundwater Flow Data: Stochastic Moment Solution Versus Traditional Monte Carlo Approach. Lecture Notes in Earth System Sciences, 2014, , 407-410.	0.5	0
69	Polynomial chaos expansion for global sensitivity analysis applied to a model of radionuclide migration in a randomly heterogeneous aquifer. Stochastic Environmental Research and Risk Assessment, 2013, 27, 945-954.	1.9	74
70	Mobility and Interaction of Heavy Metals in a Natural Soil. Transport in Porous Media, 2013, 97, 295-315.	1.2	10
71	New General Analytical Solution for Infiltration Structures Design. Journal of Hydraulic Engineering, 2013, 139, 637-644.	0.7	3
72	Numerical investigation of pore and continuum scale formulations of bimolecular reactive transport in porous media. Advances in Water Resources, 2013, 62, 243-253.	1.7	46

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73	Sub-Gaussian model of processes with heavy-tailed distributions applied to air permeabilities of fractured tuff. Stochastic Environmental Research and Risk Assessment, 2013, 27, 195-207.	1.9	35
74	Controlling scaling metrics for improved characterization of well-head protection regions. Journal of Hydrology, 2013, 494, 107-115.	2.3	9
75	Upscaling solute transport in porous media from the pore scale to dualâ€•and multicontinuum formulations. Water Resources Research, 2013, 49, 2025-2039.	1.7	20
76	Recent Advances in Statistical and Scaling Analysis of Earth and Environmental Variables. , 2013, , 1-25.		14
77	Global sensitivity analysis through polynomial chaos expansion of a basin-scale geochemical compaction model. Computational Geosciences, 2013, 17, 25-42.	1.2	71
78	Anisotropic Scaling of Berea Sandstone Log Air Permeability Statistics. Vadose Zone Journal, 2013, 12, 1-15.	1.3	25
79	Data assimilation and parameter estimation via ensemble Kalman filter coupled with stochastic moment equations of transient groundwater flow. Water Resources Research, 2013, 49, 1334-1344.	1.7	41
80	Anisotropic statistical scaling of vadose zone hydraulic property estimates near Maricopa, Arizona. Water Resources Research, 2013, 49, 8463-8479.	1.7	23
81	On the identification of Dragon Kings among extreme-valued outliers. Nonlinear Processes in Geophysics, 2013, 20, 549-561.	0.6	8
82	Estimation of Single-Metal and Competitive Sorption Isotherms through Maximum Likelihood and Model Quality Criteria. Soil Science Society of America Journal, 2012, 76, 1229-1245.	1.2	17
83	Upscaling solute transport in porous media in the presence of an irreversible bimolecular reaction. Advances in Water Resources, 2012, 35, 151-162.	1.7	54
84	Microscale simulation and numerical upscaling of a reactive flow in a plane channel. Physical Review E, 2012, 86, 036102.	0.8	20
85	Extended power-law scaling of air permeabilities measured on a block of tuff. Hydrology and Earth System Sciences, 2012, 16, 29-42.	1.9	29
86	Extended power-law scaling of heavy-tailed random air-permeability fields in fractured and sedimentary rocks. Hydrology and Earth System Sciences, 2012, 16, 3249-3260.	1.9	15
87	An integrated simulation framework for the performance assessment of radioactive waste repositories. Annals of Nuclear Energy, 2012, 39, 1-8.	0.9	7
88	Nominal Range Sensitivity Analysis of peak radionuclide concentrations in randomly heterogeneous aquifers. Annals of Nuclear Energy, 2012, 47, 166-172.	0.9	1
89	Interpretation of flowmeter data in heterogeneous layered aquifers. Journal of Hydrology, 2012, 452-453, 76-82.	2.3	7
90	Numerical investigation of apparent multifractality of samples from processes subordinated to truncated fBm. Hydrological Processes, 2012, 26, 2894-2908.	1.1	29

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91	A comparison of body-fitted and immersed boundary methods for pore-scale modeling of fully saturated flow in synthetic porous media. , 2012, , 241-249.		2
92	Role of model selection criteria in geostatistical inverse estimation of statistical data‑and model‑parameters. Water Resources Research, 2011, 47, .	1.7	35
93	Joint inversion of steady-state hydrologic and self-potential data for 3D hydraulic conductivity distribution at the Boise Hydrogeophysical Research Site. Journal of Hydrology, 2011, 407, 115-128.	2.3	29
94	Quantitative comparison of impeller-flowmeter and particle-size-distribution techniques for the characterization of hydraulic conductivity variability. Hydrogeology Journal, 2011, 19, 603-612.	0.9	17
95	Effects of uncertainty of lithofacies, conductivity and porosity distributions on stochastic interpretations of a field scale tracer test. Stochastic Environmental Research and Risk Assessment, 2010, 24, 955-970.	1.9	29
96	Stochastic characterization of the Montalto Uffugo research site (Italy) by geostatistical inversion of moment equations of groundwater flow. Journal of Hydrology, 2010, 381, 42-51.	2.3	11
97	Exact sensitivity matrix and influence of the number of pilot points in the geostatistical inversion of moment equations of groundwater flow. Water Resources Research, 2010, 46, .	1.7	11
98	Characterization of the Hydrogeological Experimental Site of Poitiers (France) by stochastic well testing analysis. Journal of Hydrology, 2009, 369, 154-164.	2.3	21
99	Effects of evolving scales of heterogeneity on hydraulic head predictions under convergent flow conditions. Hydrogeology Journal, 2009, 17, 817-825.	0.9	4
100	Effect of Sorption Heterogeneity on Moments of Solute Residence Time in Convergent Flows. Mathematical Geosciences, 2009, 41, 835-853.	1.4	6
101	A comparison of seven methods for the inverse modelling of groundwater flow. Application to the characterisation of well catchments. Advances in Water Resources, 2009, 32, 851-872.	1.7	154
102	Impact of log-transmissivity variogram structure on groundwater flow and transport predictions. Advances in Water Resources, 2009, 32, 1311-1322.	1.7	15
103	Inverse analysis of stochastic moment equations for transient flow in randomly heterogeneous media. Advances in Water Resources, 2009, 32, 1495-1507.	1.7	32
104	Relative importance of geostatistical and transport models in describing heavily tailed breakthrough curves at the Lauswiesen site. Journal of Contaminant Hydrology, 2008, 101, 1-13.	1.6	83
105	On the geostatistical characterization of hierarchical media. Water Resources Research, 2008, 44, .	1.7	42
106	Effect of Sorption Processes on Pump-and-Treat Remediation Practices Under Heterogeneous Conditions. , 2008, , 153-164.		0
107	Type curve interpretation of late‑time pumping test data in randomly heterogeneous aquifers. Water Resources Research, 2007, 43, .	1.7	56
108	Assessment of uncertainty associated with the estimation of well catchments by moment equations. Advances in Water Resources, 2006, 29, 676-691.	1.7	18

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109	Travel time and trajectory moments of conservative solutes in two-dimensional convergent flows. Journal of Contaminant Hydrology, 2006, 82, 23-43.	1.6	19
110	Probabilistic study of well capture zones distribution at the Lauswiesen field site. Journal of Contaminant Hydrology, 2006, 88, 92-118.	1.6	65
111	Delineation of Source Protection Zones Using Statistical Methods. Water Resources Management, 2005, 19, 163-185.	1.9	28
112	Epitaxial La2âˆ•3Sr1âˆ•3MnO3 thin films with metallic behavior above the Curie temperature. Applied Physics Letters, 2005, 86, 252502.	1.5	23
113	Impact of the choice of the variogram model on flow and travel time predictors in radial flows. , 2005, , 273-284.		1
114	Type-curve estimation of statistical heterogeneity. Water Resources Research, 2004, 40, .	1.7	59
115	Effect of Heterogeneity on Aquifer Reclamation Time. Quantitative Geology and Geostatistics, 2004, , 259-270.	0.1	3
116	Stochastic averaging of nonlinear flows in heterogeneous porous media. Journal of Fluid Mechanics, 2003, 492, 47-62.	1.4	49
117	Three-dimensional steady state flow to a well in a randomly heterogeneous bounded aquifer. Water Resources Research, 2003, 39, .	1.7	40
118	Mean travel time of conservative solutes in randomly heterogeneous unbounded domains under mean uniform flow. Water Resources Research, 2003, 39, .	1.7	14
119	Analyses on NVM Circuitry Delay Induced by Source & Drain BF2 Implant. Microelectronics Reliability, 2002, 42, 1509-1511.	0.9	0
120	Radial Flow in a Bounded Randomly Heterogeneous Aquifer. Transport in Porous Media, 2001, 45, 139-193.	1.2	60
121	Time-related capture zones for radial flow in two dimensional randomly heterogeneous media. Stochastic Environmental Research and Risk Assessment, 1999, 13, 217-230.	1.9	27