J Jaime GÃ³mez-HernÃ¡ndez

List of Publications by Year
in descending order

137	5,023	87723	98622
papers	citations	38 h-index	67 g-index

155	155	155	2495
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Contaminant Source Identification in Aquifers: A Critical View. Mathematical Geosciences, 2022, 54, 437-458.	1.4	17
2	Ensemble Smoother with Multiple Data Assimilation as a Tool for Curve Fitting and Parameter Uncertainty Characterization: Example Applications to Fit Nonlinear Sorption Isotherms. Mathematical Geosciences, 2022, 54, 807-825.	1.4	3
3	Non-point contaminant source identification in an aquifer using the ensemble smoother with multiple data assimilation. Journal of Hydrology, 2022, 606, 127405.	2.3	11
4	Teaching Numerical Groundwater Flow Modeling with Spreadsheets. Mathematical Geosciences, 2022, 54, 1121-1138.	1.4	3
5	Contaminant source identification in groundwater by means of artificial neural network. Journal of Hydrology, 2022, 611, 128003.	2.3	8
6	Spatiotemporal Precipitation Estimation from Rain Gauges and Meteorological Radar Using Geostatistics. Mathematical Geosciences, 2021, 53, 499-516.	1.4	9
7	A comparison between ES-MDA and restart EnKF for the purpose of the simultaneous identification of a contaminant source and hydraulic conductivity. Journal of Hydrology, 2021, 595, 125681.	2.3	23
8	Introduction to the Special Issue in Honor of AndrÃ© G. Journel. Mathematical Geosciences, 2021, 53, 185-191.	1.4	0
9	One Step at a Time: The Origins of Sequential Simulation and Beyond. Mathematical Geosciences, 2021, 53, 193-209.	1.4	21
10	Groundwater Modelling in Karst Areas. Water (Switzerland), 2021, 13, 854.	1.2	4
11	Contaminant Spill in a Sandbox with Non-Gaussian Conductivities: Simultaneous Identification by the Restart Normal-Score Ensemble Kalman Filter. Mathematical Geosciences, 2021, 53, 1587-1615.	1.4	12
12	Editorial: Machine Learning for Water Resources. Frontiers in Artificial Intelligence, 2021, 4, 699862.	2.0	4
13	Editorial: Stochastic Modeling in Hydrogeology. Frontiers in Earth Science, 2021, 9, .	0.8	1
14	Contaminant-Source Detection in a Water Distribution System Using the Ensemble Kalman Filter. Journal of Water Resources Planning and Management - ASCE, 2021, 147, .	1.3	8
15	A Multidisciplinary Approach to Evaluate the Effectiveness of Natural Attenuation at a Contaminated Site. Hydrology, 2021, 8, 101.	1.3	8
16	Ensemble smoother with multiple data assimilation to simultaneously estimate the source location and the release history of a contaminant spill in an aquifer. Journal of Hydrology, 2021, 598, 126215.	2.3	23
17	Introduction to Special Section: The Quest for Sustainability of Heavily Stressed Aquifers at Regional to Global Scales. Water Resources Research, 2021, 57, e2021WR030446.	1.7	4
18	Solving Inverse Problems of Unknown Contaminant Source in Groundwater-River Integrated Systems Using a Surrogate Transport Model Based Optimization. Water (Switzerland), 2020, 12, 2415.	1.2	15

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19	Coupling Empirical Bayes and Akaikeâ€™s Bayesian Information Criterion to Estimate Aquifer Transmissivity Fields. Mathematical Geosciences, 2020, 52, 425-441.	1.4	3
20	Integrating Hydrogeological and Microbiological Data and Modelling to Characterize the Hydraulic Features and Behaviour of Coastal Carbonate Aquifers: A Case in Western Cuba. Water (Switzerland), 2019, 11, 1989.	1.2	13
21	Ensemble smoother with multiple data assimilation for reverse flow routing. Computers and Geosciences, 2019, 131, 32-40.	2.0	18
22	Analysis of the Saltwater Wedge in a Coastal Karst Aquifer with a Double Conduit Network, Numerical Simulations and Sensitivity Analysis. Water (Switzerland), 2019, 11, 2311.	1.2	6
23	Characterization of Hydraulic Heterogeneity of Alluvial Aquifer Using Natural Stimuli: A Field Experience of Northern Italy. Water (Switzerland), 2019, 11, 176.	1.2	9
24	Groundwater characterization from an ecological and human perspective: an interdisciplinary approach in the Functional Urban Area of Parma, Italy. Rendiconti Lincei, 2019, 30, 93-108.	1.0	18
25	Spatial variability of hydraulic conductivity and solute transport parameters and their spatial correlations to soil properties. Geoderma, 2019, 339, 59-69.	2.3	35
26	Stochastic upscaling of hydrodynamic dispersion and retardation factor in a physically and chemically heterogeneous tropical soil. Stochastic Environmental Research and Risk Assessment, 2019, 33, 201-216.	1.9	5
27	How to Perform Hydraulic Conductivity Upscaling in the Daily Practice of Geotechnical Modeler?. Environmental Science and Engineering, 2019, , 544-550.	0.1	0
28	Stochastic analysis of three-dimensional hydraulic conductivity upscaling in a heterogeneous tropical soil. Computers and Geotechnics, 2018, 100, 174-187.	2.3	13
29	Simultaneous identification of a contaminant source and hydraulic conductivity via the restart normal-score ensemble Kalman filter. Advances in Water Resources, 2018, 112, 106-123.	1.7	79
30	Scale effect on hydraulic conductivity and solute transport: Small and large-scale laboratory experiments and field experiments. Engineering Geology, 2018, 243, 196-205.	2.9	19
31	Joint identification of contaminant source and aquifer geometry in a sandbox experiment with the restart ensemble Kalman filter. Journal of Hydrology, 2018, 564, 1074-1084.	2.3	39
32	A multidisciplinary procedure to evaluate and optimize the efficacy of hydraulic barriers in contaminated sites: a case study in Northern Italy. Environmental Earth Sciences, 2018, 77, 1.	1.3	9
33	Inverse Modeling Aided by the Classification and Regression Tree (CART) Algorithm. Quantitative Geology and Geostatistics, 2017, , 805-819.	0.1	1
34	Optimization of pulsed thermoelectric materials using simulated annealing and non-linear finite elements. Applied Thermal Engineering, 2017, 120, 603-613.	3.0	7
35	Introduction to special section on Modeling highly heterogeneous aquifers: Lessons learned in the last 30 years from the <scp>MADE</scp> experiments and others. Water Resources Research, 2017, 53, 2581-2584.	1.7	15
36	Identification of transmissivity fields using a Bayesian strategy and perturbative approach. Advances in Water Resources, 2017, 108, 69-82.	1.7	7

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37	A conceptual hydrogeological model of ophiolitic aquifers (serpentinised peridotite): The test example of Mt. Prinzera (Northern Italy). Hydrological Processes, 2017, 31, 1058-1073.	1.1	22
38	Influence of Heterogeneity on Heat Transport Simulations in Shallow Geothermal Systems. Quantitative Geology and Geostatistics, 2017, , 849-862.	0.1	2
39	NEW PRECIPITATION INDICES FOR MONITORING DROUGHT ï¿½ AN ANALYSIS OF THE PRECIPITATION REGIMES OF GERMANY AND THE IBERIAN PENINSULA IN THE COURSE OF THE CLIMATE CHANGE. , 2017, , .		0
40	Contaminant source reconstruction by empirical Bayes and Akaike's Bayesian Information Criterion. Journal of Contaminant Hydrology, 2016, 185-186, 74-86.	1.6	27
41	Joint identification of contaminant source location, initial release time, and initial solute concentration in an aquifer via ensemble Kalman filtering. Water Resources Research, 2016, 52, 6587-6595.	1.7	70
42	Characterization of nonâ€Gaussian conductivities and porosities with hydraulic heads, solute concentrations, and water temperatures. Water Resources Research, 2016, 52, 6111-6136.	1.7	21
43	Geostatistics for Environmental Applications. Mathematical Geosciences, 2016, 48, 1-2.	1.4	4
44	Inverse sequential simulation: A new approach for the characterization of hydraulic conductivities demonstrated on a nonâ€•G aussian field. Water Resources Research, 2015, 51, 2227-2242.	1.7	19
45	Contaminant release history identification in 2-D heterogeneous aquifers through a minimum relative entropy approach. SpringerPlus, 2015, 4, 656.	1.2	14
46	Two-point or multiple-point statistics? A comparison between the ensemble Kalman filtering and the ensemble pattern matching inverse methods. Advances in Water Resources, 2015, 86, 297-310.	1.7	18
47	A localâ€“global pattern matching method for subsurface stochastic inverse modeling. Environmental Modelling and Software, 2015, 70, 55-64.	1.9	5
48	Probability fields revisited in the context of ensemble Kalman filtering. Journal of Hydrology, 2015, 531, 40-52.	2.3	10
49	Inverse sequential simulation: Performance and implementation details. Advances in Water Resources, 2015, 86, 311-326.	1.7	5
50	Numerical sedimentation particle-size analysis using the Discrete Element Method. Advances in Water Resources, 2015, 86, 58-72.	1.7	3
51	Evaluation of dispersivity coefficients by means of a laboratory image analysis. Journal of Contaminant Hydrology, 2015, 172, 10-23.	1.6	38
52	Laboratory sandbox validation of pollutant source location methods. Stochastic Environmental Research and Risk Assessment, 2015, 29, 169-182.	1.9	30
53	Simultaneous Estimation of Geologic and Reservoir State Variables Within an Ensemble-Based Multiple-Point Statistic Framework. Mathematical Geosciences, 2014, 46, 597-623.	1.4	15
54	Optimal numerical design of bucket elevators using discontinuous deformation analysis. Granular Matter, 2014, 16, 485-498.	1.1	8

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55	Factorial kriging of a geochemical dataset for heavy-metal spatial-variability characterization. Environmental Earth Sciences, 2014, 71, 3161-3170.	1.3	8
56	Inverse methods in hydrogeology: Evolution and recent trends. Advances in Water Resources, 2014, 63, 22-37.	1.7	260
57	Special Issue on Environmental Geostatistics. Mathematical Geosciences, 2013, 45, 507-509.	1.4	0
58	Simultaneous identification of the pollutant release history and the source location in groundwater by means of a geostatistical approach. Stochastic Environmental Research and Risk Assessment, 2013, 27, 1269-1280.	1.9	55
59	Parallelized ensemble Kalman filter for hydraulic conductivity characterization. Computers and Geosciences, 2013, 52, 42-49.	2.0	23
60	A pilot point guided pattern matching approach to integrate dynamic data into geological modeling. Advances in Water Resources, 2013, 62, 125-138.	1.7	16
61	Correction to â€œSteady-state saturated groundwater flow modeling with full tensor conductivities using finite differencesâ€. Computers and Geosciences, 2013, 54, 38.	2.0	0
62	The power of transient piezometric head data in inverse modeling: An application of the localized normal-score EnKF with covariance inflation in a heterogenous bimodal hydraulic conductivity field. Advances in Water Resources, 2013, 54, 100-118.	1.7	43
63	Characterizing Curvilinear Features Using the Localized Normal-Score Ensemble Kalman Filter. Abstract and Applied Analysis, 2012, 2012, 1-18.	0.3	8
64	Modeling transient groundwater flow by coupling ensemble Kalman filtering and upscaling. Water Resources Research, 2012, 48, .	1.7	29
65	A patternâ€searchâ€based inverse method. Water Resources Research, 2012, 48, .	1.7	44
66	Groundwater flow inverse modeling in non-MultiGaussian media: performance assessment of the normal-score Ensemble Kalman Filter. Hydrology and Earth System Sciences, 2012, 16, 573-590.	1.9	43
67	Jointly mapping hydraulic conductivity and porosity by assimilating concentration data via ensemble Kalman filter. Journal of Hydrology, 2012, 428-429, 152-169.	2.3	91
68	Pattern Recognition in a Bimodal Aquifer Using the Normal-Score Ensemble Kalman Filter. Mathematical Geosciences, 2012, 44, 169-185.	1.4	45
69	New Developments in Subsurface Flow and Transport. Mathematical Geosciences, 2012, 44, 131-132.	1.4	1
70	Upscaling Transmissivity in the Near-Well Region for Numerical Simulation: A Comparison on Uncertainty Propagation. Engineering Applications of Computational Fluid Mechanics, 2011, 5, 49-66.	1.5	4
71	A comparative study of three-dimensional hydraulic conductivity upscaling at the macro-dispersion experiment (MADE) site, Columbus Air Force Base, Mississippi (USA). Journal of Hydrology, 2011, 404, 278-293.	2.3	41
72	An approach to handling non-Gaussianity of parameters and state variables in ensemble Kalman filtering. Advances in Water Resources, 2011, 34, 844-864.	1.7	212

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73	Transport upscaling using multi-rate mass transfer in three-dimensional highly heterogeneous porous media. Advances in Water Resources, 2011, 34, 478-489.	1.7	41
74	An approach to handling non-Gaussianity of parameters and state variables in ensemble Kalman filtering. , 2011, 34, 844-844.		1
75	Three-dimensional hydraulic conductivity upscaling in groundwater modeling. Computers and Geosciences, 2010, 36, 1224-1235.	2.0	27
76	Steady-state saturated groundwater flow modeling with full tensor conductivities using finite differences. Computers and Geosciences, 2010, 36, 1211-1223.	2.0	18
77	Blocking Markov Chain Monte Carlo Schemes for Inverse Stochastic Hydrogeological Modeling. Quantitative Geology and Geostatistics, 2010, , 121-126.	0.1	1
78	Uncertainty assessment and data worth in groundwater flow and mass transport modeling using a blocking Markov chain Monte Carlo method. Journal of Hydrology, 2009, 364, 328-341.	2.3	87
79	A Blocking Markov Chain Monte Carlo Method forÂInverse Stochastic Hydrogeological Modeling. Mathematical Geosciences, 2009, 41, 105-128.	1.4	57
80	A non-parametric automatic blending methodology to estimate rainfall fields from rain gauge and radar data. Advances in Water Resources, 2009, 32, 986-1002.	1.7	187
81	Upscaling transport with mass transfer models: Mean behavior and propagation of uncertainty. Water Resources Research, 2009, 45, .	1.7	33
82	Water intrusion in pipes due to a transient event. , 2009, , 315-318.		0
83	Preserving spatial structure for inverse stochastic simulation using blocking Markov chain Monte Carlo method. Inverse Problems in Science and Engineering, 2008, 16, 865-884.	1.2	18
84	A Stochastic Approach to Estimate Block Dispersivities that Includes the Effect of Mass Transfer Between Grid Blocks. , 2008, , 165-173.		0
85	Estimating hydraulic conductivity of the Opalinus Clay at the regional scale: Combined effect of desaturation and EDZ. Physics and Chemistry of the Earth, 2007, 32, 639-645.	1.2	12
86	Impact of upscaling on solute transport: Traveltimes, scale dependence of dispersivity, and propagation of uncertainty. Water Resources Research, 2007, 43, .	1.7	35
87	Modeling tracer transport at the MADE site: The importance of heterogeneity. Water Resources Research, 2007, 43, .	1.7	92
88	A Multi-Scale-Oriented Blocking Markov Chain Monte Carlo Method for Inverse Stochastic Simulation. , 2007, , .		0
89	Modeling mass transfer processes using random walk particle tracking. Water Resources Research, 2006, 42, .	1.7	87
90	Complexity. Ground Water, 2006, 44, 782-785.	0.7	35

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91	A review and numerical assessment of the random walk particle tracking method. Journal of Contaminant Hydrology, 2006, 87, 277-305.	1.6	261
92	Performance assessment of solute transport upscaling methods in the context of nuclear waste disposal. International Journal of Rock Mechanics and Minings Sciences, 2005, 42, 756-764.	2.6	14
93	Strategies to determine dispersivities in heterogeneous aquifers. , 2005, , 285-296.		0
94	Geostatistics. , 2005, , 59-83.		5
95	Impact of Flow and Transport Coupling in the Upscaling of Transport Parameters for Performance Assessment in the Context of Nuclear Waste Disposal. Elsevier Geo-Engineering Book Series, 2004, 2, 243-249.	0.0	2
96	Stochastic conditional inverse modeling of subsurface mass transport: A brief review and the self-calibrating method. Stochastic Environmental Research and Risk Assessment, 2003, 17, 319-328.	1.9	35
97	Impact of measurement errors in stochastic inverse conditional modelling by the self-calibrating approach. Advances in Water Resources, 2003, 26, 501-511.	1.7	7
98	Comment on â€œDerivation of effective hydraulic parameters of a karst aquifer from discharge hydrograph analysisâ€•by S. J. Baedke and N. C. Krothe. Water Resources Research, 2003, 39, .	1.7	8
99	A Bayesian approach to stochastic capture zone delineation incorporating tracer arrival times, conductivity measurements, and hydraulic head observations. Water Resources Research, 2003, 39, .	1.7	41
100	Reply to comment by A. Sahuquillo and J. Jaime GÃ³mez-HernÃ¡ndez on â€œDerivation of effective hydraulic parameters of a karst aquifer from discharge hydrograph analysisâ€• Water Resources Research, 2003, 39, .	1.7	2
101	Bayesian methodology for stochastic capture zone delineation incorporating transmissivity measurements and hydraulic head observations. Journal of Hydrology, 2003, 271, 156-170.	2.3	36
102	Coupled inverse modelling of groundwater flow and mass transport and the worth of concentration data. Journal of Hydrology, 2003, 281, 281-295.	2.3	81
103	Production Data Integration in Sand/Shale Reservoirs Using Sequential Self-Calibration and GeoMorphing: AComparison. SPE Reservoir Evaluation and Engineering, 2002, 5, 255-265.	1.1	8
104	3D inverse modelling of groundwater flow at a fractured site using a stochastic continuum model with multiple statistical populations. Stochastic Environmental Research and Risk Assessment, 2002, 16, 155-174.	1.9	41
105	Stochastic analysis of flow response in a three-dimensional fractured rock mass block. International Journal of Rock Mechanics and Minings Sciences, 2001, 38, 31-44.	2.6	18
106	Dual Kriging with Local Neighborhoods: Application to the Representation of Surfaces. Mathematical Geosciences, 2000, 32, 69-85.	0.9	8
107	Joint simulation of transmissivity and storativity fields conditional to steady-state and transient hydraulic head data. Advances in Water Resources, 1999, 23, 1-13.	1.7	42
108	Foreword to Special Issue: Modeling Subsurface Flow. Mathematical Geosciences, 1999, 31, 747-748.	0.9	2

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109	Title is missing!. Mathematical Geosciences, 1999, 31, 907-927.	0.9	37
110	A program to create permeability fields that honor single-phase flow rate and pressure data. Computers and Geosciences, 1999, 25, 217-230.	2.0	42
111	Inverse Modeling of Groundwater Flow in a 3D Fractured Media. Quantitative Geology and Geostatistics, 1999, , 283-294.	0.1	4
112	Upscaling Hydraulic Conductivities in Cross-Bedded Formations. Mathematical Geosciences, 1998, 30, 181-211.	0.9	30
113	Numerical modeling of macrodispersion in heterogeneous media: a comparison of multi-Gaussian and non-multi-Gaussian models. Journal of Contaminant Hydrology, 1998, 30, 129-156.	1.6	80
114	Worth of secondary data compared to piezometric data for the probabilistic assessment of radionuclide migration. Stochastic Hydrology & Hydraulics, 1998, 12, 171-190.	0.5	3
115	To be or not to be multi-Gaussian? A reflection on stochastic hydrogeology. Advances in Water Resources, 1998, 21, 47-61.	1.7	230
116	Stochastic simulation of transmissivity fields conditional to both transmissivity and piezometric head dataâ€”3. Application to the Culebra formation at the Waste Isolation Pilot Plan (WIPP), New Mexico, USA. Journal of Hydrology, 1998, 207, 254-269.	2.3	41
117	A comparison of seven geostatistically based inverse approaches to estimate transmissivities for modeling advective transport by groundwater flow. Water Resources Research, 1998, 34, 1373-1413.	1.7	274
118	Stochastic simulation of transmissivity fields conditional to both transmissivity and piezometric data 2. Demonstration on a synthetic aquifer. Journal of Hydrology, 1997, 203, 175-188.	2.3	64
119	Stochastic simulation of transmissivity fields conditional to both transmissivity and piezometric dataâ€”l. Theory. Journal of Hydrology, 1997, 203, 162-174.	2.3	278
120	Uncertainty in Hydrogeological Modelling. Novartis Foundation Symposium, 1997, 210, 221-230.	1.2	0
121	Incorporating Geophysical Information: Which Method to Use?. Quantitative Geology and Geostatistics, 1997, , 1221-1232.	0.1	2
122	Significance of conditioning to piezometric head data for predictions of mass transport in groundwater modeling. Mathematical Geosciences, 1996, 28, 951-968.	0.9	25
123	The Constant Displacement Scheme for Tracking Particles in Heterogeneous Aquifers. Ground Water, 1996, 34, 135-142.	0.7	42
124	Multigaussian models: The danger of parsimony. Journal of the Italian Statistical Society, 1995, 4, 167-181.	0.1	2
125	Probabilistic assessment of travel times in groundwater modeling. Stochastic Hydrology & Hydraulics, 1994, 8, 19-55.	0.5	39
126	Using linear approximations to rank realizations in groundwater modeling: Application to worst case selection. Water Resources Research, 1994, 30, 2065-2072.	1.7	10

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127	Stochastic Characterization of Gridblock Permeabilities. SPE Formation Evaluation, 1994, 9, 93-99.	0.5	26
128	Stochastic Imaging of the Wilmington Clastic Sequence. SPE Formation Evaluation, 1993, 8, 33-40.	0.5	61
129	Joint Sequential Simulation of MultiGaussian Fields. Quantitative Geology and Geostatistics, 1993, , 85-94.	0.1	160
130	Corrections to â€œISIM3D: an ANSIî—¸C three-dimensional multiple indicator conditional simulation programâ€• Computers and Geosciences, 1992, 18, 623-625.	2.0	1
131	ANALYSIS OF UPSCALING AND EFFECTIVE PROPERTIES IN DISORDERED MEDIA. , 1991, , 251-276.		0
132	ISIM3D: An ANSI-C three-dimensional multiple indicator conditional simulation program. Computers and Geosciences, 1990, 16, 395-440.	2.0	214
133	A stochastic approach to the problem of upscaling of conductivity in disordered media: Theory and unconditional numerical simulations. Water Resources Research, 1990, 26, 691-701.	1.7	113
134	Reply [to â€œComment on â€˜Effective groundwater model parameter values: Influence of spatial variability of hydraulic conductivity, leakance, and rechargeâ€™ by J. J. GÃ³mezâ€HernÃ¡ndez and S. M. Gorelickâ€]. Water Resources Research, 1990, 26, 1847-1848.	1.7	0
135	Effective groundwater model parameter values: Influence of spatial variability of hydraulic conductivity, leakance, and recharge. Water Resources Research, 1989, 25, 405-419.	1.7	145
136	A MultiGaussian Kriging Application to the Environmental Impact Assessment of a New Industrial Site in Alcoy (Spain). , 0, , 203-210.		1
137	An Analytical Approach to the Computation of the Frequency Response Function. , 0, , .		0