

# Steven M Gorelick

## List of Publications by Year in descending order

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125  
papers

10,457  
citations

32410

55  
h-index

38517

99  
g-index

127  
all docs

127  
docs citations

127  
times ranked

8389  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mapping Sugarcane in Central India with Smartphone Crowdsourcing. <i>Remote Sensing</i> , 2022, 14, 703.	1.8	9
2	Capturing Stakeholdersâ€™ Challenges of the Foodâ€“Waterâ€“Energy Nexusâ€”A Participatory Approach for Pune and the Bhima Basin, India. <i>Sustainability</i> , 2022, 14, 5323.	1.6	6
3	A coupled humanâ€“natural system analysis of freshwater security under climate and population change. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	61
4	Increasing nutrient inputs risk a surge of nitrous oxide emissions from global mangrove ecosystems. <i>One Earth</i> , 2021, 4, 742-748.	3.6	6
5	Muskrats as a bellwether of a drying delta. <i>Communications Biology</i> , 2021, 4, 750.	2.0	5
6	Broad approaches to cholera control in Asia: Water, sanitation and handwashing. <i>Vaccine</i> , 2020, 38, A110-A117.	1.7	15
7	Drying landscape and interannual herbivoryâ€”driven habitat degradation control semiaquatic mammal population dynamics. <i>Ecohydrology</i> , 2020, 13, e2169.	1.1	10
8	Controlling Arsenic Mobilization during Managed Aquifer Recharge: The Role of Sediment Heterogeneity. <i>Environmental Science &amp; Technology</i> , 2020, 54, 8728-8738.	4.6	33
9	Insights on expected streamflow response to land-cover restoration. <i>Journal of Hydrology</i> , 2020, 589, 125121.	2.3	0
10	Distribution of small seasonal reservoirs in semi-arid regions and associated evaporative losses. <i>Environmental Research Communications</i> , 2020, 2, 061002.	0.9	21
11	Water-food-energy challenges in India: political economy of the sugar industry. <i>Environmental Research Letters</i> , 2020, 15, 084020.	2.2	18
12	Extracting Impervious Surface from Aerial Imagery Using Semi-Automatic Sampling and Spectral Stability. <i>Remote Sensing</i> , 2020, 12, 506.	1.8	12
13	Insights from watershed simulations around the world: Watershed service-based restoration does not significantly enhance streamflow. <i>Global Environmental Change</i> , 2019, 58, 101938.	3.6	11
14	Drying drives decline in muskrat population in the Peace-Athabasca Delta, Canada. <i>Environmental Research Letters</i> , 2018, 13, 124026.	2.2	22
15	Indigenous communities, groundwater opportunities. <i>Science</i> , 2018, 361, 453-455.	6.0	10
16	How Jordan and Saudi Arabia are avoiding a tragedy of the commons over shared groundwater. <i>Water Resources Research</i> , 2017, 53, 5451-5468.	1.7	43
17	A remote sensing method for estimating regional reservoir area and evaporative loss. <i>Journal of Hydrology</i> , 2017, 555, 213-227.	2.3	52
18	Increasing drought in Jordan: Climate change and cascading Syrian land-use impacts on reducing transboundary flow. <i>Science Advances</i> , 2017, 3, e1700581.	4.7	93

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19	A New Temperature-Vegetation Triangle Algorithm with Variable Edges (TAVE) for Satellite-Based Actual Evapotranspiration Estimation. <i>Remote Sensing</i> , 2016, 8, 735.	1.8	14
20	Alternative stable states of tidal marsh vegetation patterns and channel complexity. <i>Ecohydrology</i> , 2016, 9, 1639-1662.	1.1	15
21	Relating salt marsh pore water geochemistry patterns to vegetation zones and hydrologic influences. <i>Water Resources Research</i> , 2016, 52, 1729-1745.	1.7	23
22	Impact of the Syrian refugee crisis on land use and transboundary freshwater resources. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 14932-14937.	3.3	82
23	Closing the irrigation deficit in Cambodia: Implications for transboundary impacts on groundwater and Mekong River flow. <i>Journal of Hydrology</i> , 2016, 535, 85-92.	2.3	40
24	Assessment of human-natural system characteristics influencing global freshwater supply vulnerability. <i>Environmental Research Letters</i> , 2015, 10, 104014.	2.2	46
25	Global change and the groundwater management challenge. <i>Water Resources Research</i> , 2015, 51, 3031-3051.	1.7	282
26	To prevent earthquake triggering, pressure changes due to CO <sub>2</sub> injection need to be limited. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E4510.	3.3	27
27	Declining rainfall and regional variability changes in Jordan. <i>Water Resources Research</i> , 2015, 51, 3828-3835.	1.7	16
28	Groundwater extraction, land subsidence, and sea-level rise in the Mekong Delta, Vietnam. <i>Environmental Research Letters</i> , 2014, 9, 084010.	2.2	276
29	Global analysis of urban surface water supply vulnerability. <i>Environmental Research Letters</i> , 2014, 9, 104004.	2.2	44
30	Arsenic in the Multi-aquifer System of the Mekong Delta, Vietnam: Analysis of Large-Scale Spatial Trends and Controlling Factors. <i>Environmental Science &amp; Technology</i> , 2014, 48, 6081-6088.	4.6	25
31	Hydrological Controls on Methylmercury Distribution and Flux in a Tidal Marsh. <i>Environmental Science &amp; Technology</i> , 2014, 48, 6795-6804.	4.6	18
32	Coupled impacts of sea-level rise and tidal marsh restoration on endangered California clapper rail. <i>Biological Conservation</i> , 2014, 172, 89-100.	1.9	31
33	The impact of urbanization on water vulnerability: A coupled human-environment system approach for Chennai, India. <i>Global Environmental Change</i> , 2013, 23, 229-239.	3.6	238
34	Distinguishing wetland vegetation and channel features with object-based image segmentation. <i>International Journal of Remote Sensing</i> , 2013, 34, 1332-1354.	1.3	52
35	Peak Oil Demand: The Role of Fuel Efficiency and Alternative Fuels in a Global Oil Production Decline. <i>Environmental Science &amp; Technology</i> , 2013, 47, 8031-8041.	4.6	32
36	Release of arsenic to deep groundwater in the Mekong Delta, Vietnam, linked to pumping-induced land subsidence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13751-13756.	3.3	202

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37	Reply to Juanes et al.: Evidence that earthquake triggering could render long-term carbon storage unsuccessful in many regions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, .	3.3	9
38	A method to calculate heterogeneous evapotranspiration using submeter thermal infrared imagery coupled to a stomatal resistance submodel. Water Resources Research, 2012, 48, .	1.7	10
39	Salt marsh ecohydrological zonation due to heterogeneous vegetationâ€“groundwaterâ€“surface water interactions. Water Resources Research, 2012, 48, .	1.7	81
40	Earthquake triggering and large-scale geologic storage of carbon dioxide. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10164-10168.	3.3	626
41	Spatial connectivity in a highly heterogeneous aquifer: From cores to preferential flow paths. Water Resources Research, 2011, 47, .	1.7	111
42	Investigation of Small-Scale Preferential Flow with a Forced-Gradient Tracer Test. Ground Water, 2011, 49, 503-514.	0.7	40
43	Lessons Learned from 25 Years of Research at the MADE Site. Ground Water, 2011, 49, 649-662.	0.7	128
44	Relationship of Salt Marsh Vegetation Zonation to Spatial Patterns in Soil Moisture, Salinity, and Topography. Ecosystems, 2010, 13, 1287-1302.	1.6	69
45	Relative importance of dispersion and rateâ€“limited mass transfer in highly heterogeneous porous media: Analysis of a new tracer test at the Macrodispersion Experiment (MADE) site. Water Resources Research, 2010, 46, .	1.7	27
46	A hydrologicâ€“economic modeling approach for analysis of urban water supply dynamics in Chennai, India. Water Resources Research, 2010, 46, .	1.7	40
47	Sustainable urban water supply in south India: Desalination, efficiency improvement, or rainwater harvesting?. Water Resources Research, 2010, 46, .	1.7	54
48	Salt marshâ€“atmosphere exchange of energy, water vapor, and carbon dioxide: Effects of tidal flooding and biophysical controls. Water Resources Research, 2010, 46, .	1.7	67
49	Geological modeling of submeter scale heterogeneity and its influence on tracer transport in a fluvial aquifer. Water Resources Research, 2010, 46, .	1.7	39
50	Factors determining informal tanker water markets in Chennai, India. Water International, 2010, 35, 254-269.	0.4	25
51	Tsunami-induced groundwater salinization in southeastern India. Comptes Rendus - Geoscience, 2009, 341, 339-346.	0.4	44
52	Identifying discrete geologic structures that produce anomalous hydraulic response: An inverse modeling approach. Water Resources Research, 2008, 44, .	1.7	73
53	Processes Controlling the Thermal Regime of Saltmarsh Channel Beds. Environmental Science & Technology, 2008, 42, 671-676.	4.6	45
54	Riparian hydroecology: A coupled model of the observed interactions between groundwater flow and meadow vegetation patterning. Water Resources Research, 2007, 43, .	1.7	112

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55	Evaluation of the applicability of the dual-domain mass transfer model in porous media containing connected high-conductivity channels. <i>Water Resources Research</i> , 2007, 43, .	1.7	50
56	The Local Geometry of Gas Injection into Saturated Homogeneous Porous Media. <i>Transport in Porous Media</i> , 2007, 68, 107-127.	1.2	69
57	Quantifying Stream-Aquifer Interactions through the Analysis of Remotely Sensed Thermographic Profiles and In Situ Temperature Histories. <i>Environmental Science &amp; Technology</i> , 2006, 40, 3336-3341.	4.6	159
58	Comment on "Investigating the Macrodispersion Experiment (MADE) site in Columbus, Mississippi, using a three-dimensional inverse flow and transport model" by Heidi Christiansen Barlebo, Mary C. Hill, and Dan Rosbjerg. <i>Water Resources Research</i> , 2006, 42, .	1.7	29
59	Hydrogeophysical tracking of three-dimensional tracer migration: The concept and application of apparent petrophysical relations. <i>Water Resources Research</i> , 2006, 42, .	1.7	48
60	Sustainable conjunctive water management in irrigated agriculture: Model formulation and application to the Yaqui Valley, Mexico. <i>Water Resources Research</i> , 2006, 42, .	1.7	77
61	Reliable conjunctive use rules for sustainable irrigated agriculture and reservoir spill control. <i>Water Resources Research</i> , 2006, 42, .	1.7	21
62	Combined interpretation of radar, hydraulic, and tracer data from a fractured-rock aquifer near Mirror Lake, New Hampshire, USA. <i>Hydrogeology Journal</i> , 2006, 14, 1-14.	0.9	63
63	Effective permeability of porous media containing branching channel networks. <i>Physical Review E</i> , 2006, 73, 026305.	0.8	48
64	Effects of spatially variable resolution on field-scale estimates of tracer concentration from electrical inversions using Archie's law. <i>Geophysics</i> , 2006, 71, G83-G91.	1.4	69
65	A local-scale, high-resolution evapotranspiration mapping algorithm (ETMA) with hydroecological applications at riparian meadow restoration sites. <i>Remote Sensing of Environment</i> , 2005, 98, 182-200.	4.6	85
66	A general approach to advective dispersive transport with multirate mass transfer. <i>Advances in Water Resources</i> , 2005, 28, 33-42.	1.7	41
67	MOD_FreeSurf2D: A MATLAB surface fluid flow model for rivers and streams. <i>Computers and Geosciences</i> , 2005, 31, 929-946.	2.0	17
68	Semi-analytical method for departure point determination. <i>International Journal for Numerical Methods in Fluids</i> , 2005, 47, 121-137.	0.9	8
69	Field Evaluation of In Situ Source Reduction of Trichloroethylene in Groundwater Using Bioenhanced In-Well Vapor Stripping. <i>Environmental Science &amp; Technology</i> , 2005, 39, 8963-8970.	4.6	35
70	Framework to evaluate the worth of hydraulic conductivity data for optimal groundwater resources management in ecologically sensitive areas. <i>Water Resources Research</i> , 2005, 41, .	1.7	61
71	Saline tracer visualized with three-dimensional electrical resistivity tomography: Field-scale spatial moment analysis. <i>Water Resources Research</i> , 2005, 41, .	1.7	220
72	Quantifying mass transfer in permeable media containing conductive dendritic networks. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	1.5	25

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73	Estimation of groundwater consumption by phreatophytes using diurnal water table fluctuations: A saturated-unsaturated flow assessment. <i>Water Resources Research</i> , 2005, 41, .	1.7	241
74	Limits of applicability of the advection-dispersion model in aquifers containing connected high-conductivity channels. <i>Water Resources Research</i> , 2004, 40, .	1.7	65
75	Effects of air injection on flow through porous media: Observations and analyses of laboratory-scale processes. <i>Water Resources Research</i> , 2004, 40, .	1.7	56
76	Reliable groundwater management in hydroecologically sensitive areas. <i>Water Resources Research</i> , 2004, 40, .	1.7	45
77	Analysis of Solute Transport in Flow Fields Influenced by Preferential Flowpaths at the Decimeter Scale. <i>Ground Water</i> , 2003, 41, 142-155.	0.7	149
78	Time-lapse imaging of saline-tracer transport in fractured rock using difference-attenuation radar tomography. <i>Water Resources Research</i> , 2003, 39, .	1.7	132
79	Time-lapse inversion of crosswell radar data. <i>Geophysics</i> , 2002, 67, 1740-1752.	1.4	75
80	Full-scale demonstration of in situ cometabolic biodegradation of trichloroethylene in groundwater 1. Dynamics of a recirculating well system. <i>Water Resources Research</i> , 2002, 38, 10-1-10-15.	1.7	19
81	Full-scale demonstration of in situ cometabolic biodegradation of trichloroethylene in groundwater 2. Comprehensive analysis of field data using reactive transport modeling. <i>Water Resources Research</i> , 2002, 38, 11-1-11-18.	1.7	28
82	Rate-limited mass transfer or macrodispersion: Which dominates plume evolution at the macrodispersion experiment (MADE) site?. <i>Water Resources Research</i> , 2000, 36, 637-650.	1.7	196
83	Identifying fracture-zone geometry using simulated annealing and hydraulic-connection data. <i>Water Resources Research</i> , 2000, 36, 1707-1721.	1.7	66
84	Inferring the relation between seismic slowness and hydraulic conductivity in heterogeneous aquifers. <i>Water Resources Research</i> , 2000, 36, 2121-2132.	1.7	60
85	Convergence of Stochastic Optimization and Decision Analysis in the Engineering Design of Aquifer Remediation. <i>Ground Water</i> , 1999, 37, 934-954.	0.7	67
86	Modeling Mass Transfer Processes in Soil Columns with Pore-scale Heterogeneity. <i>Soil Science Society of America Journal</i> , 1998, 62, 62-74.	1.2	89
87	Laboratory-scale analysis of aquifer remediation by in-well vapor stripping 2. Modeling results. <i>Journal of Contaminant Hydrology</i> , 1997, 29, 41-58.	1.6	14
88	Incorporating uncertainty into aquifer management models. , 1997, , 101-112.		13
89	Heterogeneity in Sedimentary Deposits: A Review of Structure-Imitating, Process-Imitating, and Descriptive Approaches. <i>Water Resources Research</i> , 1996, 32, 2617-2658.	1.7	471
90	A Physically Based Model for Air-Lift Pumping. <i>Water Resources Research</i> , 1996, 32, 2383-2399.	1.7	14

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91	Estimating Lithologic and Transport Properties in Three Dimensions Using Seismic and Tracer Data: The Kesterson aquifer. <i>Water Resources Research</i> , 1996, 32, 2659-2670.	1.7	104
92	Mapping Hydraulic Conductivity: Sequential Conditioning with Measurements of Solute Arrival Time, Hydraulic Head, and Local Conductivity. <i>Water Resources Research</i> , 1995, 31, 1615-1626.	1.7	106
93	Temporal Moment-Generating Equations: Modeling Transport and Mass Transfer in Heterogeneous Aquifers. <i>Water Resources Research</i> , 1995, 31, 1895-1911.	1.7	169
94	Fractional packing model for hydraulic conductivity derived from sediment mixtures. <i>Water Resources Research</i> , 1995, 31, 3283-3297.	1.7	192
95	Multiple-Rate Mass Transfer for Modeling Diffusion and Surface Reactions in Media with Pore-Scale Heterogeneity. <i>Water Resources Research</i> , 1995, 31, 2383-2400.	1.7	703
96	Design of multiple contaminant remediation: Sensitivity to rate-limited mass transfer. <i>Water Resources Research</i> , 1994, 30, 435-446.	1.7	55
97	Aquifer remediation: A method for estimating mass transfer rate coefficients and an evaluation of pulsed pumping. <i>Water Resources Research</i> , 1994, 30, 1979-1991.	1.7	79
98	Coupled seismic and tracer test inversion for aquifer property characterization. <i>Water Resources Research</i> , 1994, 30, 1965-1977.	1.7	101
99	When enough is enough: The worth of monitoring data in aquifer remediation design. <i>Water Resources Research</i> , 1994, 30, 3499-3513.	1.7	122
100	Design of Optimal, Reliable Plume Capture Schemes: Application to the Gloucester Landfill Ground-Water Contamination Problem. <i>Ground Water</i> , 1993, 31, 107-114.	0.7	49
101	Analysis of uncertainty in optimal groundwater contaminant capture design. <i>Water Resources Research</i> , 1993, 29, 2139-2153.	1.7	103
102	The concept of in-situ vapor stripping for removing VOCs from groundwater. <i>Transport in Porous Media</i> , 1992, 8, 71-92.	1.2	41
103	Large scale nonlinear deterministic and stochastic optimization: Formulations involving simulation of subsurface contamination. <i>Mathematical Programming</i> , 1990, 48, 19-39.	1.6	59
104	Simulating physical processes and economic behavior in saline, irrigated agriculture: model development. <i>Water Resources Research</i> , 1990, 26, 1359-1369.	1.7	57
105	Benefits of an irrigation water rental market in a saline stream-aquifer system. <i>Water Resources Research</i> , 1990, 26, 1371-1381.	1.7	28
106	Effective groundwater model parameter values: Influence of spatial variability of hydraulic conductivity, leakance, and recharge. <i>Water Resources Research</i> , 1989, 25, 405-419.	1.7	145
107	Reliable aquifer remediation in the presence of spatially variable hydraulic conductivity: From data to design. <i>Water Resources Research</i> , 1989, 25, 2211-2225.	1.7	163
108	Particle travel times of contaminants incorporated into a planning model for groundwater plume capture. <i>Journal of Hydrology</i> , 1989, 107, 73-98.	2.3	23

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109	Optimal groundwater quality management under parameter uncertainty. <i>Water Resources Research</i> , 1987, 23, 1162-1174.	1.7	245
110	The Problem of Complex Eigensystems in the Semianalytical Solution For Advancement of Time in Solute Transport Simulations: A New Method Using Real Arithmetic. <i>Water Resources Research</i> , 1986, 22, 1149-1154.	1.7	14
111	A Statistical Methodology for Estimating Transport Parameters: Theory and Applications to One-Dimensional Advective-Dispersive Systems. <i>Water Resources Research</i> , 1986, 22, 1303-1315.	1.7	105
112	Estimating monthly streamflow values by cokriging. <i>Mathematical Geosciences</i> , 1986, 18, 785-809.	0.9	16
113	Design and Cost Analysis of Rapid Aquifer Restoration Systems Using Flow Simulation and Quadratic Programming. <i>Ground Water</i> , 1986, 24, 777-790.	0.7	63
114	GEOLOGIC INFERENCE FROM "FLOW NET" TRANSMISSIVITY DETERMINATION: THREE CASE STUDIES. <i>Journal of the American Water Resources Association</i> , 1985, 21, 919-930.	1.0	2
115	A Policy Evaluation Tool: Management of a Multiaquifer System Using Controlled Stream Recharge. <i>Water Resources Research</i> , 1985, 21, 1731-1747.	1.7	57
116	Hydraulic gradient control for groundwater contaminant removal. <i>Journal of Hydrology</i> , 1985, 76, 85-106.	2.3	83
117	Aquifer Reclamation Design: The Use of Contaminant Transport Simulation Combined With Nonlinear Programming. <i>Water Resources Research</i> , 1984, 20, 415-427.	1.7	242
118	Reply [to "Comment On "Identifying Sources of Groundwater Pollution: An Optimization Approach" by Steven M. Gorelick, Barbara Evans, and Irwin Remson]. <i>Water Resources Research</i> , 1984, 20, 745-745.	1.7	0
119	A review of distributed parameter groundwater management modeling methods. <i>Water Resources Research</i> , 1983, 19, 305-319.	1.7	420
120	Identifying sources of groundwater pollution: An optimization approach. <i>Water Resources Research</i> , 1983, 19, 779-790.	1.7	266
121	Optimal dynamic management of groundwater pollutant sources. <i>Water Resources Research</i> , 1982, 18, 71-76.	1.7	73
122	A model for managing sources of groundwater pollution. <i>Water Resources Research</i> , 1982, 18, 773-781.	1.7	54
123	Optimal Location and Management of Waste Disposal Facilities Affecting Ground Water Quality. <i>Journal of the American Water Resources Association</i> , 1982, 18, 43-51.	1.0	28
124	Computer Models in Ground-Water Exploration. <i>Ground Water</i> , 1980, 18, 447-451.	0.7	7
125	Management model of a groundwater system with a transient pollutant source. <i>Water Resources Research</i> , 1979, 15, 1243-1249.	1.7	38