Richard M Vogel

List of Publications by Year in descending order

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162 papers

11,348 citations

25034 57 h-index 101 g-index

174 all docs

174 docs citations

174 times ranked 7899 citing authors

#	Article	IF	CITATIONS
1	The geometric mean?. Communications in Statistics - Theory and Methods, 2022, 51, 82-94.	1.0	17
2	An unbiased estimator of coefficient of variation of streamflow. Journal of Hydrology, 2021, 594, 125954.	5.4	8
3	The Abuse of Popular Performance Metrics in Hydrologic Modeling. Water Resources Research, 2021, 57, e2020WR029001.	4.2	76
4	On the need for streamflow drought frequency guidelines in the U.S Water Policy, 2021, 23, 216-231.	1.5	4
5	Improved estimators of correlation and R ² for skewed hydrologic data. Hydrological Sciences Journal, 2020, 65, 87-101.	2.6	13
6	Updating urban design floods for changes in central tendency and variability using regression. Advances in Water Resources, 2020, 136, 103484.	3.8	16
7	Need for Process Based Empirical Models for Water Quality Management: Salinity Management in the Delaware River Basin. Journal of Water Resources Planning and Management - ASCE, 2020, 146, 05020018.	2.6	2
8	Improved Estimators of Model Performance Efficiency for Skewed Hydrologic Data. Water Resources Research, 2020, 56, e2020WR027101.	4.2	44
9	Runoff and Evapotranspiration Elasticities in the Western United States: Are They Consistent With Dooge's Complementary Relationship?. Water Resources Research, 2020, 56, e2019WR026719.	4.2	6
10	HESS Opinions: Beyond the long-term water balance: evolving Budyko's supply–demand framework for the Anthropocene towards a global synthesis of land-surface fluxes under natural and human-altered watersheds. Hydrology and Earth System Sciences, 2020, 24, 1975-1984.	4.9	20
11	A comparison of estimators of the conditional mean under non-stationary conditions. Advances in Water Resources, 2020, 143, 103672.	3.8	6
12	Decision Trees for Incorporating Hypothesis Tests of Hydrologic Alteration into Hydropower–Ecosystem Tradeoffs. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	2.6	4
13	Revisiting the Probability Distribution of Low Streamflow Series in the United States. Journal of Hydrologic Engineering - ASCE, 2019, 24, .	1.9	8
14	Updating estimates of low-streamflow statistics to account for possible trends. Hydrological Sciences Journal, 2019, 64, 1404-1414.	2.6	12
15	Climate Sensitivity of Phosphorus Loadings to an Urban Stream. Journal of the American Water Resources Association, 2018, 54, 527-542.	2.4	1
16	Techniques for assessing water infrastructure for nonstationary extreme events: a review. Hydrological Sciences Journal, 2018, 63, 325-352.	2.6	156
17	Prewhitening of hydroclimatic time series? Implications for inferred change and variability across time scales. Journal of Hydrology, 2018, 557, 109-115.	5.4	40
18	The probability distribution of daily precipitation at the point and catchment scales in the United States. Hydrology and Earth System Sciences, 2018, 22, 6519-6531.	4.9	51

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19	Parsimonious nonstationary flood frequency analysis. Advances in Water Resources, 2018, 112, 1-16.	3.8	76
20	Steel Bridge Service Life Prediction Using Bootstrap Method. International Journal of Civil Engineering, 2017, 15, 51-61.	2.0	7
21	Stochastic watershed models for hydrologic risk management. Water Security, 2017, 1, 28-35.	2.5	42
22	On the probability distribution of daily streamflow in the United States. Hydrology and Earth System Sciences, 2017, 21, 3093-3103.	4.9	61
23	Hazard function theory for nonstationary natural hazards. Natural Hazards and Earth System Sciences, 2016, 16, 915-925.	3.6	11
24	On the deterministic and stochastic use of hydrologic models. Water Resources Research, 2016, 52, 5619-5633.	4.2	84
25	Hazard function analysis for flood planning under nonstationarity. Water Resources Research, 2016, 52, 4116-4131.	4.2	35
26	Panel regressions to estimate lowâ€flow response to rainfall variability in ungaged basins. Water Resources Research, 2016, 52, 9470-9494.	4.2	18
27	Regional flow duration curves: Geostatistical techniques versus multivariate regression. Advances in Water Resources, 2016, 96, 11-22.	3.8	35
28	Bridge Fatigue Service-Life Estimation Using Operational Strain Measurements. Journal of Bridge Engineering, 2016, 21, .	2.9	18
29	Statistical bridge damage detection using girder distribution factors. Engineering Structures, 2016, 109, 139-151.	5.3	23
30	Reliability, return periods, and risk under nonstationarity. Water Resources Research, 2015, 51, 6381-6398.	4.2	190
31	Multiple regression and inverse moments improve the characterization of the spatial scaling behavior of daily streamflows in the <scp>S</scp> outheast <scp>U</scp> nited <scp>S</scp> tates. Water Resources Research, 2015, 51, 1775-1796.	4.2	19
32	Using water insecurity to predict domestic water demand in the Palestinian West Bank. Water International, 2015, 40, 614-634.	1.0	7
33	Global Storage-Reliability-Yield Relationships for Water Supply Reservoirs. Water Resources Management, 2015, 29, 1591-1605.	3.9	14
34	Hydrology: The interdisciplinary science of water. Water Resources Research, 2015, 51, 4409-4430.	4.2	145
35	Objective hydrograph baseflow recession analysis. Journal of Hydrology, 2015, 525, 102-112.	5.4	49
36	Adapting Urban Infrastructure to Climate Change: A Drainage Case Study. Journal of Water Resources Planning and Management - ASCE, 2015, 141, .	2.6	65

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37	Hypothesis tests for hydrologic alteration. Journal of Hydrology, 2015, 530, 117-126.	5.4	29
38	Uncertainty analysis for water supply reservoir yields. Journal of Hydrology, 2015, 529, 257-264.	5.4	18
39	The hydromorphology of an urbanizing watershed using multivariate elasticity. Advances in Water Resources, 2015, 86, 147-154.	3.8	25
40	Hydroclimatic regimes: a distributed water-balance framework for hydrologic assessment, classification, and management. Hydrology and Earth System Sciences, 2014, 18, 3855-3872.	4.9	23
41	Multivariate power-law models for streamflow prediction in the Mekong Basin. Journal of Hydrology: Regional Studies, 2014, 2, 35-48.	2.4	13
42	A global water supply reservoir yield model with uncertainty analysis. Environmental Research Letters, 2014, 9, 095006.	5.2	14
43	Performance-Based Evaluation of an Improved Robust Optimization Formulation. Journal of Water Resources Planning and Management - ASCE, 2014, 140, .	2.6	33
44	Uncertainty and sensitivity analyses using GLUE when modeling inhibition and pharmaceutical cometabolism during nitrification. Environmental Modelling and Software, 2014, 60, 219-227.	4.5	11
45	A riskâ€based approach to flood management decisions in a nonstationary world. Water Resources Research, 2014, 50, 1928-1942.	4.2	101
46	Statistical Bridge Signatures. Journal of Bridge Engineering, 2014, 19, .	2.9	27
47	Classic Optimization Techniques Applied to Stormwater and Nonpoint Source Pollution Management at the Watershed Scale. Journal of Water Resources Planning and Management - ASCE, 2013, 139, 486-491.	2.6	27
48	Optimal Location of Sediment-Trapping Best Management Practices for Nonpoint Source Load Management. Journal of Water Resources Planning and Management - ASCE, 2013, 139, 478-485.	2.6	7
49	Performance-weighted methods for estimating monthly streamflow at ungauged sites. Journal of Hydrology, 2013, 477, 240-250.	5.4	41
50	Special Issue on the Role of Systems Analysis in Watershed Management. Journal of Water Resources Planning and Management - ASCE, 2013, 139, 461-463.	2.6	11
51	Estimation of the base flow recession constant under human interference. Water Resources Research, 2013, 49, 7366-7379.	4.2	51
52	Brief Communication: Likelihood of societal preparedness for global change: trend detection. Natural Hazards and Earth System Sciences, 2013, 13, 1773-1778.	3.6	32
53	Impact of Storm Water Recharge Practices on Boston Groundwater Elevations. Journal of Hydrologic Engineering - ASCE, 2012, 17, 923-932.	1.9	15
54	Regional regression models of watershed suspended-sediment discharge for the eastern United States. Journal of Hydrology, 2012, 472-473, 53-62.	5.4	22

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55	Hydromorphologic Scientific and Engineering Challenges for 2050., 2012,, 350-354.		1
56	Effective Measures of "Effective―Discharge. Journal of Geology, 2011, 119, 1-14.	1.4	46
57	The Impacts of Water Conservation Strategies on Water Use: Four Case Studies1. Journal of the American Water Resources Association, 2011, 47, 687-701.	2.4	22
58	Nonstationarity: Flood Magnification and Recurrence Reduction Factors in the United States1. Journal of the American Water Resources Association, 2011, 47, 464-474.	2.4	248
59	Sampling Bias and Class Imbalance inÂMaximum-likelihood Logistic Regression. Mathematical Geosciences, 2011, 43, 99-120.	2.4	87
60	The impact of dams on flood flows in the United States. River Research and Applications, 2011, 27, 1192-1215.	1.7	120
61	Probability distributions for offshore wind speeds. Energy Conversion and Management, 2011, 52, 15-26.	9.2	358
62	Hydromorphology. Journal of Water Resources Planning and Management - ASCE, 2011, 137, 147-149.	2.6	53
63	The Gumbel hypothesis test for left censored observations using regional earthquake records as an example. Natural Hazards and Earth System Sciences, 2011, 11, 115-126.	3.6	5
64	Multivariate Models of Watershed Suspended Sediment Loads for the Eastern United States., 2010,,.		3
65	Climatic and Anthropogenic Influences on Freshwater Availability in the Eastern United States. , 2010, ,		O
66	Estimation of phosphorus loads with sparse data for agricultural watersheds in the Czech Republic. Hydrological Sciences Journal, 2010, 55, 1417-1426.	2.6	5
67	Integrated Optimization of a Dual Quality Water and Wastewater System. Journal of Water Resources Planning and Management - ASCE, 2010, 136, 37-47.	2.6	13
68	Integrated Watershed Management Modeling: Generic Optimization Model Applied to the Ipswich River Basin. Journal of Water Resources Planning and Management - ASCE, 2010, 136, 566-575.	2.6	38
69	Validation and Application of Empirical Liquefaction Models. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2010, 136, 1618-1633.	3.0	60
70	The Implications of Discretizing Continuous Random Variables: An Example Using the U.S. Geological Survey Reporting Standards for Streamflow Data., 2009,,.		3
71	Development of representative indicators of hydrologic alteration. Journal of Hydrology, 2009, 374, 136-147.	5.4	263
72	Goodness of Fit of Probability Distributions for Sightings asÂSpecies Approach Extinction. Bulletin of Mathematical Biology, 2009, 71, 701-719.	1.9	29

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73	Generalized Storage-Reliability-Yield Equations for Rainwater Harvesting Systems. , 2009, , .		6
74	Appraisal of the generalized likelihood uncertainty estimation (GLUE) method. Water Resources Research, 2008, 44, .	4.2	262
75	Optimal Siting of Regional Fecal Sludge Treatment Facilities: St. Elizabeth, Jamaica. Journal of Water Resources Planning and Management - ASCE, 2008, 134, 55-63.	2.6	5
76	Effective Measures of "Effective Discharge"., 2008,,.		1
77	Indicators of Hydrologic Stress in Massachusetts. , 2008, , .		0
78	A Decision-Support System to Assess Surface-Water Resources in Massachusetts., 2008,,.		2
79	Multivariate probabilistic regional envelopes of extreme floods. Journal of Hydrology, 2007, 336, 376-390.	5.4	18
80	Global streamflows – Part 1: Characteristics of annual streamflows. Journal of Hydrology, 2007, 347, 243-259.	5.4	96
81	Global streamflows – Part 3: Country and climate zone characteristics. Journal of Hydrology, 2007, 347, 272-291.	5.4	35
82	Global streamflows – Part 2: Reservoir storage–yield performance. Journal of Hydrology, 2007, 347, 260-271.	5.4	49
83	A global index earthquake approach to probabilistic assessment of extremes. Journal of Geophysical Research, 2007, 112, .	3.3	19
84	Water use regimes: Characterizing direct human interaction with hydrologic systems. Water Resources Research, 2007, 43, .	4.2	80
85	Relations among storage, yield, and instream flow. Water Resources Research, 2007, 43, .	4.2	205
86	An assessment of exceedance probabilities of envelope curves. Water Resources Research, 2007, 43, .	4.2	15
87	Estimation of Flow-Duration Curves at Ungaged Sites in Southern New England. , 2007, , .		9
88	Revisiting reservoir storage–yield relationships using a global streamflow database. Advances in Water Resources, 2007, 30, 1858-1872.	3.8	71
89	Review of Gould–Dincer reservoir storage–yield–reliability estimates. Advances in Water Resources, 2007, 30, 1873-1882.	3.8	38
90	Trends in precipitation and streamflow in the eastern U.S.: Paradox or perception?. Geophysical Research Letters, 2006, 33, .	4.0	123

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91	Probabilistic Behavior of Floods of Record in the United States. Journal of Hydrologic Engineering - ASCE, 2006, 11, 482-488.	1.9	19
92	PREDICTING FECAL COLIFORM BACTERIA LEVELS IN THE CHARLES RIVER, MASSACHUSETTS, USA. Journal of the American Water Resources Association, 2005, 41, 1195-1209.	2.4	65
93	Predicting ground water nitrate concentration from land use. Ground Water, 2005, 43, 343-352.	1.3	114
94	Global Analysis of Changes in Water Supply Yields and Costs under Climate Change: A Case Study in China. Climatic Change, 2005, 68, 303-330.	3.6	15
95	Probabilistic Behavior of Water-Quality Loads. Journal of Environmental Engineering, ASCE, 2005, 131, 1081-1089.	1.4	41
96	Reliability of Reservoir Firm Yield Determined from the Historical Drought of Record., 2005,, 1.		2
97	Optimal Location of Infiltration-Based Best Management Practices for Storm Water Management. Journal of Water Resources Planning and Management - ASCE, 2005, 131, 441-448.	2.6	133
98	Probabilistic behavior of a regional envelope curve. Water Resources Research, 2005, 41, .	4.2	41
99	Challenges in Graduate Education in Integrated Water Resources Management. Journal of Water Resources Planning and Management - ASCE, 2004, 130, 185-186.	2.6	15
100	A stochastic index flow model of flow duration curves. Water Resources Research, 2004, 40, .	4.2	82
101	Developing a Watershed Characteristics Database to Improve Low Streamflow Prediction. Journal of Hydrologic Engineering - ASCE, 2004, 9, 116-125.	1.9	96
102	Lack of influence of climate on present cost of water supply in the USA. Water Policy, 2004, 6, 269-279.	1.5	0
103	Hydroclimatology of the continental United States. Geophysical Research Letters, 2003, 30, .	4.0	139
104	Discharge indices for water quality loads. Water Resources Research, 2003, 39, .	4.2	90
105	Validation of a watershed model without calibration. Water Resources Research, 2003, 39, .	4.2	49
106	Decision Support System for Adaptive Water Supply Management. Journal of Water Resources Planning and Management - ASCE, 2003, 129, 165-177.	2.6	69
107	Closure to "Probability Distribution of Low Streamflow Series in the United States―by Charles N. Kroll and Richard M. Vogel. Journal of Hydrologic Engineering - ASCE, 2003, 8, 297-298.	1.9	1
108	Regional assessment of the impact of climate change on the yield of water supply systems. , 2002, , 101-110.		1

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109	Probability Distribution of Low Streamflow Series in the United States. Journal of Hydrologic Engineering - ASCE, 2002, 7, 137-146.	1.9	119
110	Annual hydroclimatology of the United States. Water Resources Research, 2002, 38, 19-1-19-12.	4.2	141
111	Impact of Streamflow Persistence on Hydrologic Design. Journal of Hydrologic Engineering - ASCE, 2002, 7, 220-227.	1.9	46
112	Comment on the paper: "Basin hydrologic response relations to distributed physiographic descriptors and climate―by Karen Plaut Berger, Dara Entekhabi, 2001. Journal of Hydrology 247, 169–182. Journal of Hydrology, 2002, 263, 257-261.	5.4	23
113	Climate elasticity of streamflow in the United States. Water Resources Research, 2001, 37, 1771-1781.	4.2	510
114	Impact of Streamflow Persistence on Hydrologic Design. , 2001, , 1.		0
115	Frequency of record-breaking floods in the United States. Water Resources Research, 2001, 37, 1723-1731.	4.2	60
116	The utility of L-moment ratio diagrams for selecting a regional probability distribution. Hydrological Sciences Journal, 2001, 46, 147-155.	2.6	96
117	Spatial scaling properties of annual streamflow in the United States. Hydrological Sciences Journal, 2000, 45, 465-476.	2.6	36
118	Estimation of Harmonic Mean of a Lognormal Variable. Journal of Hydrologic Engineering - ASCE, 2000, 5, 59-66.	1.9	33
119	Closure to "Optimal Allocation of Water Withdrawals in River Basin―by Jennifer M. Jacobs and Richard M. Vogel. Journal of Water Resources Planning and Management - ASCE, 2000, 126, 38-38.	2.6	0
120	A derived flood frequency distribution for correlated rainfall intensity and duration. Journal of Hydrology, 2000, 228, 56-67.	5.4	97
121	Trends in floods and low flows in the United States: impact of spatial correlation. Journal of Hydrology, 2000, 240, 90-105.	5.4	923
122	Regional calibration of a watershed model. Hydrological Sciences Journal, 2000, 45, 689-707.	2.6	152
123	Comparisons of Climate Elasticity of Streamflow in the United States., 1999,, 1.		1
124	Indicators of Impacts of Global Climate Change on U.S. Water Resources. Journal of Water Resources Planning and Management - ASCE, 1999, 125, 194-204.	2.6	73
125	Regional Regression Models of Annual Streamflow for the United States. Journal of Irrigation and Drainage Engineering - ASCE, 1999, 125, 148-157.	1.0	183
126	Storage Reservoir Behavior in the United States. Journal of Water Resources Planning and Management - ASCE, 1999, 125, 245-254.	2.6	63

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127	L moment diagrams for censored observations. Water Resources Research, 1998, 34, 1241-1249.	4.2	38
128	The regional persistence and variability of annual streamflow in the United States. Water Resources Research, 1998, 34, 3445-3459.	4.2	63
129	Optimal Allocation of Water Withdrawals in a River Basin. Journal of Water Resources Planning and Management - ASCE, 1998, 124, 357-363.	2.6	15
130	The (mis)behavior of behavior analysis storage estimates. Water Resources Research, 1997, 33, 703-709.	4.2	26
131	Climate, streamflow and water supply in the northeastern United States. Journal of Hydrology, 1997, 198, 42-68.	5.4	38
132	The moving blocks bootstrap versus parametric time series models. Water Resources Research, 1996, 32, 1875-1882.	4.2	109
133	Approximate reliability and resilience indices of over-year reservoirs fed by AR(1) Gamma and normal flows. Hydrological Sciences Journal, 1996, 41, 75-96.	2.6	18
134	Global warming and the hydrologic cycle. Journal of Hydrology, 1996, 174, 83-127.	5.4	231
135	Regional models of potential evaporation and reference evapotranspiration for the northeast USA. Journal of Hydrology, 1996, 184, 337-354.	5.4	30
136	Probability Distribution of Annual Maximum, Mean, and Minimum Streamflows in the United States. Journal of Hydrologic Engineering - ASCE, 1996, 1, 69-76.	1.9	195
137	Estimation of baseflow recession constants. Water Resources Management, 1996, 10, 303-320.	3.9	86
138	FLOW DURATION CURVES II: A REVIEW OF APPLICATIONS IN WATER RESOURCES PLANNING. Journal of the American Water Resources Association, 1995, 31, 1029-1039.	2.4	279
139	Storage-Reliability-Resilience-Yield Relations for Northeastern United States. Journal of Water Resources Planning and Management - ASCE, 1995, 121, 365-374.	2.6	14
140	Recent advances and themes in hydrology. Reviews of Geophysics, 1995, 33, 933-936.	23.0	5
141	Storage-Reliability-Resilience-Yield Relations for Over-Year Water Supply Systems. Water Resources Research, 1995, 31, 645-654.	4.2	86
142	Flowâ€Duration Curves. I: New Interpretation and Confidence Intervals. Journal of Water Resources Planning and Management - ASCE, 1994, 120, 485-504.	2.6	387
143	Floodflow frequency model selection in Australia. Journal of Hydrology, 1993, 146, 421-449.	5.4	104
144	L moment diagrams should replace product moment diagrams. Water Resources Research, 1993, 29, 1745-1752.	4.2	347

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145	Floodâ€Flow Frequency Model Selection in Southwestern United States. Journal of Water Resources Planning and Management - ASCE, 1993, 119, 353-366.	2.6	103
146	Closure to " Regional Flowâ€Duration Curves for Ungauged Sites in Massachusetts ―by Neil Fennessey and Richard M. Vogel (July/August, 1990, Vol. 116, No. 4). Journal of Water Resources Planning and Management - ASCE, 1992, 118, 112-113.	2.6	0
147	Regional geohydrologic-geomorphic relationships for the estimation of low-flow statistics. Water Resources Research, 1992, 28, 2451-2458.	4.2	266
148	The value of streamflow record augmentation procedures in low-flow and flood-flow frequency analysis. Journal of Hydrology, 1991, 125, 259-276.	5.4	18
149	Probability Plot Goodness-of-Fit and Skewness Estimation Procedures for the Pearson Type 3 Distribution. Water Resources Research, 1991, 27, 3149-3158.	4.2	95
150	GENERALIZED LOW-FLOW FREQUENCY RELATIONSHIPS FOR UNGAGED SITES IN MASSACHUSETTS. Journal of the American Water Resources Association, 1990, 26, 241-253.	2.4	55
151	Regional Flowâ€Duration Curves for Ungauged Sites in Massachusetts. Journal of Water Resources Planning and Management - ASCE, 1990, 116, 530-549.	2.6	135
152	Lowâ€Flow Frequency Analysis Using Probabilityâ€Plot Correlation Coefficients. Journal of Water Resources Planning and Management - ASCE, 1989, 115, 338-357.	2.6	113
153	The value of stochastic streamflow models in overyear reservoir design applications. Water Resources Research, 1988, 24, 1483-1490.	4.2	49
154	Reliability Indices for Water Supply Systems. Journal of Water Resources Planning and Management - ASCE, 1987, 113, 563-579.	2.6	43
155	Generalized storage-reliability-yield relationships. Journal of Hydrology, 1987, 89, 303-327.	5.4	100
156	The Return Period of a Reservoir System Failure. , 1987, , 273-282.		0
157	The Probability Plot Correlation Coefficient Test for the Normal, Lognormal, and Gumbel Distributional Hypotheses. Water Resources Research, 1986, 22, 587-590.	4.2	175
158	Closure to " Floodâ€Plain Delineation in Ice Jam Prone Regions ―by Richard M. Vogel and Jery R. Stedinger (April, 1984). Journal of Water Resources Planning and Management - ASCE, 1986, 112, 566-567.	2.6	0
159	Multisite ARMA(1,1) and Disaggregation Models for Annual Streamflow Generation. Water Resources Research, 1985, 21, 497-509.	4.2	61
160	Minimum variance streamflow record augmentation procedures. Water Resources Research, 1985, 21, 715-723.	4.2	97
161	Floodâ€plain Delineation in Ice Jam Prone Regions. Journal of Water Resources Planning and Management - ASCE, 1984, 110, 206-219.	2.6	6
162	Disaggregation Procedures for Generating Serially Correlated Flow Vectors. Water Resources Research, 1984, 20, 47-56.	4.2	99