

David Hyndman

List of Publications by Year in descending order

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114
papers

4,079
citations

101384

36
h-index

133063

59
g-index

120
all docs

120
docs citations

120
times ranked

4908
citing authors

#	ARTICLE	IF	CITATIONS
1	Examining Relationships Between Groundwater Nitrate Concentrations in Drinking Water and Landscape Characteristics to Understand Health Risks. <i>GeoHealth</i> , 2022, 6, e2021GH000524.	1.9	6
2	Solar array placement, electricity generation, and cropland displacement across California's Central Valley. <i>Science of the Total Environment</i> , 2022, 835, 155240.	3.9	3
3	Connecting microbial, nutrient, physiochemical, and land use variables for the evaluation of water quality within mixed use watersheds. <i>Water Research</i> , 2022, 219, 118526.	5.3	12
4	Detangling Seasonal Relationships of Fecal Contamination Sources and Correlates with Indicators in Michigan Watersheds. <i>Microbiology Spectrum</i> , 2022, 10, .	1.2	3
5	Quantifying the Impact of Lagged Hydrological Responses on the Effectiveness of Groundwater Conservation. <i>Water Resources Research</i> , 2022, 58, .	1.7	5
6	Cross-scale evaluation of dynamic crop growth in WRF and Noah-MP-Crop. <i>Agricultural and Forest Meteorology</i> , 2021, 296, 108217.	1.9	11
7	The land use legacy effect: looking back to see a path forward to improve management. <i>Environmental Research Letters</i> , 2021, 16, 035005.	2.2	15
8	Combining Remote Sensing and Crop Models to Assess the Sustainability of Stakeholder-Driven Groundwater Management in the US High Plains Aquifer. <i>Water Resources Research</i> , 2021, 57, e2020WR027756.	1.7	15
9	Climate and hydrologic ensembling lead to differing streamflow and sediment yield predictions. <i>Climatic Change</i> , 2021, 165, 1.	1.7	1
10	Geophysics conquering new territories: The rise of "æagrogeophysics". <i>Vadose Zone Journal</i> , 2021, 20, e20115.	1.3	26
11	Root water uptake of biofuel crops revealed by coupled electrical resistivity and soil water content measurements. <i>Vadose Zone Journal</i> , 2021, 20, e20124.	1.3	2
12	Introduction to Special Section: The Quest for Sustainability of Heavily Stressed Aquifers at Regional to Global Scales. <i>Water Resources Research</i> , 2021, 57, e2021WR030446.	1.7	4
13	Sustainable irrigation through local collaborative governance: Evidence for a structural fix in Kansas. <i>Environmental Science and Policy</i> , 2021, 124, 517-526.	2.4	9
14	Snowpacks decrease and streamflows shift across the eastern US as winters warm. <i>Science of the Total Environment</i> , 2021, 793, 148483.	3.9	10
15	Trends in streamflow, evapotranspiration, and groundwater storage across the Amazon Basin linked to changing precipitation and land cover. <i>Journal of Hydrology: Regional Studies</i> , 2020, 32, 100755.	1.0	16
16	Effects of shifting snowmelt regimes on the hydrology of non-alpine temperate landscapes. <i>Journal of Hydrology</i> , 2020, 590, 125517.	2.3	15
17	Trends in Water Use, Energy Consumption, and Carbon Emissions from Irrigation: Role of Shifting Technologies and Energy Sources. <i>Environmental Science & Technology</i> , 2020, 54, 15329-15337.	4.6	29
18	Quantifying linkages between watershed factors and coastal wetland plant invasion in the US Great Lakes. <i>Landscape Ecology</i> , 2020, 35, 2843-2861.	1.9	1

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19	Quantifying Landscape Nutrient Inputs With Spatially Explicit Nutrient Source Estimate Maps. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005134.	1.3	20
20	Evaluating spatial patterns in precipitation trends across the Amazon basin driven by land cover and global scale forcings. <i>Theoretical and Applied Climatology</i> , 2020, 140, 411-427.	1.3	47
21	Water quality trends under rapid agricultural expansion and enhanced in-stream interception in a hilly watershed of Eastern China. <i>Environmental Research Letters</i> , 2020, 15, 084030.	2.2	11
22	Linking Agricultural Nutrient Pollution to the Value of Freshwater Ecosystem Services. <i>Land Economics</i> , 2020, 96, 493-509.	0.5	6
23	Increased Dependence on Irrigated Crop Production Across the CONUS (1945–2015). <i>Water (Switzerland)</i> , 2019, 11, 1458.	1.2	9
24	Mid-20th century warming hole boosts US maize yields. <i>Environmental Research Letters</i> , 2019, 14, 114008.	2.2	20
25	Mapping three decades of annual irrigation across the US High Plains Aquifer using Landsat and Google Earth Engine. <i>Remote Sensing of Environment</i> , 2019, 233, 111400.	4.6	109
26	Modeling phosphorus sources and transport in a headwater catchment with rapid agricultural expansion. <i>Environmental Pollution</i> , 2019, 255, 113273.	3.7	27
27	Quantity and quality of water percolating below the root zone of three biofuel feedstock crop systems. <i>Agricultural Water Management</i> , 2019, 221, 109-119.	2.4	7
28	Nitrogen transport and retention in a headwater catchment with dense distributions of lowland ponds. <i>Science of the Total Environment</i> , 2019, 683, 37-48.	3.9	42
29	Cellulosic biofuel crops alter evapotranspiration and drainage fluxes: Direct quantification using automated equilibrium tension lysimeters. <i>GCB Bioenergy</i> , 2019, 11, 505-516.	2.5	6
30	Effects of management areas, drought, and commodity prices on groundwater decline patterns across the High Plains Aquifer. <i>Agricultural Water Management</i> , 2019, 218, 259-273.	2.4	11
31	Quantifying irrigation adaptation strategies in response to stakeholder-driven groundwater management in the US High Plains Aquifer. <i>Environmental Research Letters</i> , 2019, 14, 044014.	2.2	58
32	Addressing Challenges for Mapping Irrigated Fields in Subhumid Temperate Regions by Integrating Remote Sensing and Hydroclimatic Data. <i>Remote Sensing</i> , 2019, 11, 370.	1.8	22
33	Groundwater: a call to action. <i>Nature</i> , 2019, 576, 213-213.	13.7	18
34	Impacts of projected climate change on sediment yield and dredging costs. <i>Hydrological Processes</i> , 2018, 32, 1223-1234.	1.1	16
35	Spatially Distinct Seasonal Patterns and Forcings of the U.S. Warming Hole. <i>Geophysical Research Letters</i> , 2018, 45, 2055-2063.	1.5	42
36	Groundwater depletion and climate change: future prospects of crop production in the Central High Plains Aquifer. <i>Climatic Change</i> , 2018, 146, 187-200.	1.7	60

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37	Regional Variations of Bovine and Porcine Fecal Pollution as a Function of Landscape, Nutrient, and Hydrological Factors. <i>Journal of Environmental Quality</i> , 2018, 47, 1024-1032.	1.0	16
38	Quantifying Soil Water and Root Dynamics Using a Coupled Hydrogeophysical Inversion. <i>Vadose Zone Journal</i> , 2018, 17, 1-13.	1.3	13
39	Sustainable hydropower in the 21st century. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 11891-11898.	3.3	378
40	Sea Level Rise Cut in Half?. <i>Ground Water</i> , 2018, 56, 845-845.	0.7	0
41	Soil Organic Carbon and Nitrogen Feedbacks on Crop Yields under Climate Change. <i>Agricultural and Environmental Letters</i> , 2018, 3, 180026.	0.8	36
42	Agricultural implications of providing soil-based constraints on urban expansion: Land use forecasts to 2050. <i>Journal of Environmental Management</i> , 2018, 217, 677-689.	3.8	17
43	A Review of the Integrated Effects of Changing Climate, Land Use, and Dams on Mekong River Hydrology. <i>Water (Switzerland)</i> , 2018, 10, 266.	1.2	155
44	A spatially explicit statistical model to quantify nutrient sources, pathways, and delivery at the regional scale. <i>Biogeochemistry</i> , 2017, 133, 37-57.	1.7	14
45	Introduction to special section on Modeling highly heterogeneous aquifers: Lessons learned in the last 30 years from the <sc>MADE</sc> experiments and others. <i>Water Resources Research</i> , 2017, 53, 2581-2584.	1.7	15
46	The land-use legacy effect: Towards a mechanistic understanding of time-lagged water quality responses to land use/cover. <i>Science of the Total Environment</i> , 2017, 579, 1794-1803.	3.9	38
47	Annual Irrigation Dynamics in the U.S. Northern High Plains Derived from Landsat Satellite Data. <i>Geophysical Research Letters</i> , 2017, 44, 9350-9360.	1.5	101
48	Quantifying changes in water use and groundwater availability in a megacity using novel integrated systems modeling. <i>Geophysical Research Letters</i> , 2017, 44, 8359-8368.	1.5	13
49	Groundwater Depletion: A Significant Unreported Source of Atmospheric Carbon Dioxide. <i>Earth's Future</i> , 2017, 5, 1133-1135.	2.4	44
50	Elimination of the Reaction Rate Scale Effect: Application of the Lagrangian Reactive Particle Tracking Method to Simulate Mixing-Limited, Field-Scale Biodegradation at the Schoolcraft (MI), Tj ETQ 0 0 0 rBT /Overlo	2.0	98
51	Electrical Resistivity tomography to image convective flow in groundwater: Examples from the United Arab Emirates Sabkha. , 2017, , .		1
52	Urban water sustainability: framework and application. <i>Ecology and Society</i> , 2016, 21, .	1.0	42
53	Water Level Declines in the High Plains Aquifer: Predevelopment to Resource Senescence. <i>Ground Water</i> , 2016, 54, 231-242.	0.7	130
54	Effects of Irrigation on Summer Precipitation over the United States. <i>Journal of Climate</i> , 2016, 29, 3541-3558.	1.2	75

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55	Complex water management in modern agriculture: Trends in the water-energy-food nexus over the High Plains Aquifer. <i>Science of the Total Environment</i> , 2016, 566-567, 988-1001.	3.9	96
56	High resolution spatially explicit nutrient source models for the Lower Peninsula of Michigan. <i>Journal of Great Lakes Research</i> , 2015, 41, 618-629.	0.8	20
57	Linking fecal bacteria in rivers to landscape, geochemical, and hydrologic factors and sources at the basin scale. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 10419-10424.	3.3	108
58	Quantifying beaver dam dynamics and sediment retention using aerial imagery, habitat characteristics, and economic drivers. <i>Landscape Ecology</i> , 2015, 30, 1129-1144.	1.9	13
59	Can Impacts of Climate Change and Agricultural Adaptation Strategies Be Accurately Quantified if Crop Models Are Annually Re-Initialized?. <i>PLoS ONE</i> , 2015, 10, e0127333.	1.1	44
60	WRF Model Sensitivity to Land Surface Model and Cumulus Parameterization under Short-Term Climate Extremes over the Southern Great Plains of the United States. <i>Journal of Climate</i> , 2014, 27, 7703-7724.	1.2	45
61	Predicting flow and transport in highly heterogeneous alluvial aquifers. <i>Geophysical Research Letters</i> , 2014, 41, 7560-7565.	1.5	35
62	Improved methods for satellite-based groundwater storage estimates: A decade of monitoring the high plains aquifer from space and ground observations. <i>Geophysical Research Letters</i> , 2014, 41, 6167-6173.	1.5	54
63	Electrical imaging and fluid modeling of convective fingering in a shallow water-table aquifer. <i>Water Resources Research</i> , 2014, 50, 954-968.	1.7	19
64	Impacts of Projected Changes in Climate on Hydrology. , 2014, , 211-220.		3
65	Hydraulic conductivity fields: Gaussian or not?. <i>Water Resources Research</i> , 2013, 49, 4730-4737.	1.7	34
66	Paleoflood Hydrology of the Paria River, Southern Utah and Northern Arizona, USA. <i>Water Science and Application</i> , 2013, , 295-310.	0.3	6
67	The future of agriculture over the Ogallala Aquifer: Solutions to grow crops more efficiently with limited water. <i>Earth's Future</i> , 2013, 1, 39-41.	2.4	34
68	Coupling land use and groundwater models to map land use legacies: Assessment of model uncertainties relevant to land use planning. <i>Applied Geography</i> , 2012, 34, 356-370.	1.7	30
69	Geostatistical analysis of centimeter-scale hydraulic conductivity variations at the MADE site. <i>Water Resources Research</i> , 2012, 48, .	1.7	63
70	Electrical Resistivity Imaging and Fluid Modeling of Free Convection in a Coastal Sabkha. , 2012, , .		1
71	Hydrostratigraphic analysis of the MADE site with full-resolution GPR and direct-push hydraulic profiling. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	31
72	The land-use legacy effect: Adding temporal context to lake chemistry. <i>Limnology and Oceanography</i> , 2011, 56, 2362-2370.	1.6	27

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73	Hydrological consequences of land-cover change: Quantifying the influence of plants on soil moisture with time-lapse electrical resistivity. <i>Geophysics</i> , 2010, 75, WA43-WA50.	1.4	51
74	A multi-modeling approach to evaluating climate and land use change impacts in a Great Lakes River Basin. <i>Hydrobiologia</i> , 2010, 657, 243-262.	1.0	67
75	A multi-modeling approach to evaluating climate and land use change impacts in a Great Lakes River Basin. , 2010, , 243-262.		4
76	Examining the influence of heterogeneous porosity fields on conservative solute transport. <i>Journal of Contaminant Hydrology</i> , 2009, 108, 77-88.	1.6	36
77	A new method for high-resolution characterization of hydraulic conductivity. <i>Water Resources Research</i> , 2009, 45, .	1.7	65
78	Natural free convection in porous media: First field documentation in groundwater. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	71
79	Impacts of The 2004 Tsunami and Subsequent Water Restorations Actions in Sri Lanka. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2009, , 3-28.	0.1	0
80	Climate Changes on Natural Hazards and Water Resources. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2009, , 63-80.	0.1	0
81	Subsurface imaging of vegetation, climate, and root-zone moisture interactions. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	71
82	Integrating statistical rock physics and sedimentology for quantitative seismic interpretation. <i>Geophysical Monograph Series</i> , 2007, , 45-60.	0.1	2
83	Evaluating temporal and spatial variations in recharge and streamflow using the Integrated Landscape Hydrology Model (ILHM). <i>Geophysical Monograph Series</i> , 2007, , 121-141.	0.1	11
84	Integrating hydrologic and geophysical data to constrain coastal surficial aquifer processes at multiple spatial and temporal scales. <i>Geophysical Monograph Series</i> , 2007, , 161-182.	0.1	1
85	Examining watershed processes using spectral analysis methods including the scaled-windowed fourier transform. <i>Geophysical Monograph Series</i> , 2007, , 183-200.	0.1	4
86	Accounting for tomographic resolution in estimating hydrologic properties from geophysical data. <i>Geophysical Monograph Series</i> , 2007, , 227-241.	0.1	12
87	Evaluating the influence of land cover on seasonal water budgets using Next Generation Radar (NEXRAD) rainfall and streamflow data. <i>Water Resources Research</i> , 2007, 43, .	1.7	15
88	Using Backcast Land-Use Change and Groundwater Travel-Time Models to Generate Land-Use Legacy Maps for Watershed Management. <i>Ecology and Society</i> , 2007, 12, .	1.0	38
89	Subsurface Hydrology: Data Integration for Properties and Processes. <i>Geophysical Monograph Series</i> , 2007, , .	0.1	7
90	Impacts of the 2004 tsunami on groundwater resources in Sri Lanka. <i>Water Resources Research</i> , 2006, 42, .	1.7	115

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91	Regional-scale assessment of a sequence-bounding paleosol on fluvial fans using ground-penetrating radar, eastern San Joaquin Valley, California. <i>Bulletin of the Geological Society of America</i> , 2006, 118, 724-732.	1.6	15
92	Geophysical and Tracer Characterization Methods. , 2006, , 15-1-15-30.		0
93	Analysis of Recharge-Induced Geochemical Change in a Contaminated Aquifer. <i>Ground Water</i> , 2005, 43, 518-530.	0.7	30
94	Heterogeneity of chlorinated hydrocarbon sorption properties in a sandy aquifer. <i>Journal of Contaminant Hydrology</i> , 2005, 78, 327-342.	1.6	16
95	A three-dimensional model of microbial transport and biodegradation at the Schoolcraft, Michigan, site. <i>Water Resources Research</i> , 2005, 41, .	1.7	28
96	Hydrogeophysical Case Studies at the Local Scale: The Saturated Zone. , 2005, , 391-412.		15
97	Spatial and temporal changes in microbial community structure associated with recharge-influenced chemical gradients in a contaminated aquifer. <i>Environmental Microbiology</i> , 2004, 6, 438-448.	1.8	79
98	INTEGRATION OF SEDIMENTOLOGIC AND HYDROGEOLOGIC PROPERTIES FOR IMPROVED TRANSPORT SIMULATIONS. , 2004, , 3-13.		8
99	Interactions between sorption and biodegradation: Exploring bioavailability and pulsed nutrient injection efficiency. <i>Water Resources Research</i> , 2003, 39, .	1.7	13
100	Identifying Relationships between Baseflow Geochemistry and Land Use with Synoptic Sampling and R-Mode Factor Analysis. <i>Journal of Environmental Quality</i> , 2003, 32, 180-190.	1.0	116
101	Identifying Relationships between Baseflow Geochemistry and Land Use with Synoptic Sampling and R-Mode Factor Analysis. <i>Journal of Environmental Quality</i> , 2003, 32, 180.	1.0	32
102	Tracer/Time-Lapse Radar Imaging Test at the Boise Hydrogeophysical Research Site. , 2003, , .		6
103	Development, Operation, and Long-Term Performance of a Full-Scale Biocurtain Utilizing Bioaugmentation. <i>Environmental Science & Technology</i> , 2002, 36, 3635-3644.	4.6	62
104	Simulation of microbial transport and carbon tetrachloride biodegradation in intermittently-fed aquifer columns. <i>Water Resources Research</i> , 2002, 38, 4-1-4-13.	1.7	30
105	Evaluating Behavior of Oxygen, Nitrate, and Sulfate during Recharge and Quantifying Reduction Rates in a Contaminated Aquifer. <i>Environmental Science & Technology</i> , 2002, 36, 2693-2700.	4.6	78
106	Modelling the impact of historical land uses on surface-water quality using groundwater flow and solute-transport models. <i>Lakes and Reservoirs: Research and Management</i> , 2002, 7, 189-199.	0.6	18
107	Biocurtain Design Using Reactive Transport Models. <i>Ground Water Monitoring and Remediation</i> , 2002, 22, 113-123.	0.6	3
108	Identifying Potential Land Use-Derived Solute Sources to Stream Baseflow Using Ground Water Models and GIS. <i>Ground Water</i> , 2001, 39, 24-34.	0.7	68

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109	Hydraulic Characterization and Design of a Full-Scale Biocurtain. <i>Ground Water</i> , 2000, 38, 462-474.	0.7	48
110	Temporal variations in parameters reflecting terminal-electron-accepting processes in an aquifer contaminated with waste fuel and chlorinated solvents. <i>Chemical Geology</i> , 2000, 169, 471-485.	1.4	48
111	Inferring the relation between seismic slowness and hydraulic conductivity in heterogeneous aquifers. <i>Water Resources Research</i> , 2000, 36, 2121-2132.	1.7	60
112	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
113	Traveltime inversion for the geometry of aquifer lithologies. <i>Geophysics</i> , 1996, 61, 1728-1737.	1.4	32
114	Coupled seismic and tracer test inversion for aquifer property characterization. <i>Water Resources Research</i> , 1994, 30, 1965-1977.	1.7	101