

Lawrence E Band

List of Publications by Year in descending order

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Version: 2024-02-01

135
papers

10,910
citations

34100

52
h-index

30920

102
g-index

137
all docs

137
docs citations

137
times ranked

9845
citing authors

#	ARTICLE	IF	CITATIONS
1	Spatial asynchrony in environmental and economic benefits of stream restoration. <i>Environmental Research Letters</i> , 2022, 17, 054004.	5.2	1
2	Guidance on evaluating parametric model uncertainty at decision-relevant scales. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 2519-2539.	4.9	1
3	The Nonpoint Sources and Transport of Baseflow Nitrogen Loading Across a Developed Rural–Urban Gradient. <i>Water Resources Research</i> , 2022, 58, .	4.2	12
4	Vegetation structural change and CO2 fertilization more than offset gross primary production decline caused by reduced solar radiation in China. <i>Agricultural and Forest Meteorology</i> , 2021, 296, 108207.	4.8	44
5	A landscape approach to nitrogen cycling in urban lawns reveals the interaction between topography and human behaviors. <i>Biogeochemistry</i> , 2021, 152, 73-92.	3.5	5
6	Enhancing Efficacy of Water Quality Trading with Automation: A Case Study in Virginia’s Nutrient Trading Program. <i>Journal of the American Water Resources Association</i> , 2021, 57, 374-390.	2.4	7
7	Evaluating Instream Restoration Effectiveness in Reducing Nitrogen Export from an Urban Catchment with a Data–Model Approach. <i>Journal of the American Water Resources Association</i> , 2021, 57, 449-473.	2.4	6
8	Watershed–Scale Effective Hydraulic Properties of the Continental United States. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002440.	3.8	8
9	Eco-Hydrology and Hydraulics of Urban Watersheds—A Resilience Approach. , 2021, , .		0
10	Nonpoint Source Water Quality Trading outcomes: Landscape-scale patterns and integration with watershed management priorities. <i>Journal of Environmental Management</i> , 2021, 294, 112914.	7.8	12
11	Characterizing and classifying urban watersheds with compositional and structural attributes. <i>Hydrological Processes</i> , 2021, 35, e14339.	2.6	6
12	Are spatial patterns of soil moisture at plot scales generalisable across catchments, climates, and other characteristics? A synthesis of synoptic soil moisture across the Mid–Atlantic. <i>Hydrological Processes</i> , 2021, 35, e14313.	2.6	1
13	Seasonal differences in future climate and streamflow variation in a watershed of Northern China. <i>Journal of Hydrology: Regional Studies</i> , 2021, 38, 100959.	2.4	4
14	Accounting for Adaptive Water Supply Management When Quantifying Climate and Land Cover Change Vulnerability. <i>Water Resources Research</i> , 2020, 56, e2019WR025614.	4.2	20
15	Climate Change May Increase the Drought Stress of Mesophytic Trees Downslope With Ongoing Forest Mesophication Under a History of Fire Suppression. <i>Frontiers in Forests and Global Change</i> , 2020, 3, .	2.3	10
16	Is Past Variability a Suitable Proxy for Future Change? A Virtual Catchment Experiment. <i>Water Resources Research</i> , 2020, 56, e2019WR026275.	4.2	22
17	A community nitrogen footprint analysis of Baltimore City, Maryland. <i>Environmental Research Letters</i> , 2020, 15, 075007.	5.2	7
18	Theoretical Perspectives of the Baltimore Ecosystem Study: Conceptual Evolution in a Social–Ecological Research Project. <i>BioScience</i> , 2020, 70, 297-314.	4.9	20

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19	An Empirical Reevaluation of Streamflow Recession Analysis at the Continental Scale. <i>Water Resources Research</i> , 2020, 56, e2019WR025448.	4.2	30
20	Non-linear quickflow response as indicators of runoff generation mechanisms. <i>Hydrological Processes</i> , 2020, 34, 2949-2964.	2.6	20
21	No Proportional Increase of Terrestrial Gross Carbon Sequestration From the Greening Earth. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 2540-2553.	3.0	51
22	Transpiration and subsurface controls of streamflow recession characteristics. <i>Hydrological Processes</i> , 2019, 33, 2561-2575.	2.6	27
23	Effects of LiDAR DEM Smoothing and Conditioning Techniques on a Topography-Based Wetland Identification Model. <i>Water Resources Research</i> , 2019, 55, 4343-4363.	4.2	20
24	A novel computational green infrastructure design framework for hydrologic and human benefits. <i>Environmental Modelling and Software</i> , 2019, 118, 252-261.	4.5	21
25	Ecosystem processes at the watershed scale: Influence of flowpath patterns of canopy ecophysiology on emergent catchment water and carbon cycling. <i>Ecohydrology</i> , 2019, 12, e2093.	2.4	19
26	Modelling the interaction of climate, forest ecosystem, and hydrology to estimate catchment dissolved organic carbon export. <i>Hydrological Processes</i> , 2019, 33, 1448-1464.	2.6	13
27	Hillslope Hydrology in Global Change Research and Earth System Modeling. <i>Water Resources Research</i> , 2019, 55, 1737-1772.	4.2	281
28	Development of a participatory Green Infrastructure design, visualization and evaluation system in a cloud supported jupyter notebook computing environment. <i>Environmental Modelling and Software</i> , 2019, 111, 121-133.	4.5	25
29	Leveraging Big Data Towards Functionally-Based, Catchment Scale Restoration Prioritization. <i>Environmental Management</i> , 2018, 62, 1007-1024.	2.7	7
30	Nonstationary Hydrologic Behavior in Forested Watersheds Is Mediated by Climate-Induced Changes in Growing Season Length and Subsequent Vegetation Growth. <i>Water Resources Research</i> , 2018, 54, 5359-5375.	4.2	52
31	Reanalysis of global terrestrial vegetation trends from MODIS products: Browning or greening?. <i>Remote Sensing of Environment</i> , 2017, 191, 145-155.	11.0	258
32	Variable nitrate concentration-discharge relationships in a forested watershed. <i>Hydrological Processes</i> , 2017, 31, 1817-1824.	2.6	47
33	A photosynthesis-based two-leaf canopy stomatal conductance model for meteorology and air quality modeling with WRF/CMAQ PX LSM. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 1930-1952.	3.3	39
34	Regional Soil Mapping Using Multi-Grade Representative Sampling and a Fuzzy Membership-Based Mapping Approach. <i>Pedosphere</i> , 2017, 27, 344-357.	4.0	29
35	Watershed impacts of climate and land use changes depend on magnitude and land use context. <i>Ecohydrology</i> , 2017, 10, e1870.	2.4	49
36	Nonstationarity in threshold response of stormflow in southern Appalachian headwater catchments. <i>Water Resources Research</i> , 2017, 53, 6579-6596.	4.2	47

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37	Projected hydrological changes in the North Carolina piedmont using bias-corrected North American Regional Climate Change Assessment Program (NARCCAP) data. <i>Journal of Hydrology: Regional Studies</i> , 2017, 12, 273-288.	2.4	3
38	On the non-stationarity of hydrological response in anthropogenically unaffected catchments: an Australian perspective. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 281-294.	4.9	30
39	Dynamics of nitrate concentration–discharge patterns in an urban watershed. <i>Water Resources Research</i> , 2017, 53, 7349-7365.	4.2	74
40	Hypospadias and maternal exposure to atrazine via drinking water in the National Birth Defects Prevention study. <i>Environmental Health</i> , 2016, 15, 76.	4.0	27
41	Development of a coupled carbon and water model for estimating global gross primary productivity and evapotranspiration based on eddy flux and remote sensing data. <i>Agricultural and Forest Meteorology</i> , 2016, 223, 116-131.	4.8	85
42	Improved meteorology from an updated WRF/CMAQ modeling system with MODIS vegetation and albedo. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 2393-2415.	3.3	32
43	Key ecological responses to nitrogen are altered by climate change. <i>Nature Climate Change</i> , 2016, 6, 836-843.	18.8	261
44	Severe Flooding and Malaria Transmission in the Western Ugandan Highlands: Implications for Disease Control in an Era of Global Climate Change. <i>Journal of Infectious Diseases</i> , 2016, 214, 1403-1410.	4.0	53
45	Sensitivity of the Weather Research and Forecast/Community Multiscale Air Quality modeling system to MODIS LAI, FPAR, and albedo. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 8491-8511.	3.3	22
46	Mechanisms driving the seasonality of catchment scale nitrate export: Evidence for riparian ecohydrologic controls. <i>Water Resources Research</i> , 2015, 51, 3982-3997.	4.2	54
47	Climate Variation Overwhelms Efforts to Reduce Nitrogen Delivery to Coastal Waters. <i>Ecosystems</i> , 2015, 18, 1319-1331.	3.4	29
48	Understanding moisture stress on light use efficiency across terrestrial ecosystems based on global flux and remote sensing data. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 2053-2066.	3.0	45
49	Simulating vegetation controls on hurricane-induced shallow landslides with a distributed ecohydrological model. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 361-378.	3.0	36
50	Green infrastructure stormwater management at the watershed scale: urban variable source area and watershed capacitance. <i>Hydrological Processes</i> , 2015, 29, 2268-2274.	2.6	65
51	In Memory of William H. Glaze (November 21, 1934–December 17, 2014). <i>Environmental Science & Technology</i> , 2015, 49, 687-688.	10.0	0
52	Soil property variation mapping through data mining of soil category maps. <i>Hydrological Processes</i> , 2015, 29, 2491-2503.	2.6	7
53	Statistical downscaling of precipitation on a spatially dependent network using a regional climate model. <i>Stochastic Environmental Research and Risk Assessment</i> , 2015, 29, 1835-1849.	4.0	5
54	Increasing detail of distributed runoff modeling using fuzzy logic in curve number. <i>Environmental Earth Sciences</i> , 2015, 73, 3197-3205.	2.7	5

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55	Effects of lateral nitrate flux and instream processes on dissolved inorganic nitrogen export in a forested catchment: A model sensitivity analysis. <i>Water Resources Research</i> , 2015, 51, 2680-2695.	4.2	18
56	Ecohydrology Models without Borders?. <i>IFIP Advances in Information and Communication Technology</i> , 2015, , 311-320.	0.7	1
57	The Influence of Forest Regrowth on the Stream Discharge in the North Carolina Piedmont Watersheds. <i>Journal of the American Water Resources Association</i> , 2014, 50, 57-73.	2.4	18
58	Effects of land use/land cover and climate changes on terrestrial net primary productivity in the Yangtze River Basin, China, from 2001 to 2010. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 1092-1109.	3.0	87
59	Divergent phenological response to hydroclimate variability in forested mountain watersheds. <i>Global Change Biology</i> , 2014, 20, 2580-2595.	9.5	71
60	Water Science Software Institute: Agile and Open Source Scientific Software Development. <i>Computing in Science and Engineering</i> , 2014, 16, 18-26.	1.2	15
61	Forest Processes. <i>Advances in Global Change Research</i> , 2014, , 25-54.	1.6	3
62	Disturbance Regimes and Stressors. <i>Advances in Global Change Research</i> , 2014, , 55-92.	1.6	12
63	Covenants, cohesion, and community: The effects of neighborhood governance on lawn fertilization. <i>Landscape and Urban Planning</i> , 2013, 115, 30-38.	7.5	61
64	Local comprehensive plan quality and regional ecosystem protection: The case of the Jordan Lake watershed, North Carolina, U.S.A.. <i>Land Use Policy</i> , 2013, 31, 450-459.	5.6	43
65	Towards closing the watershed nitrogen budget: Spatial and temporal scaling of denitrification. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 1105-1119.	3.0	62
66	Ecosystem processes at the watershed scale: Mapping and modeling ecohydrological controls of landslides. <i>Geomorphology</i> , 2012, 137, 159-167.	2.6	40
67	Phosphorus export across an urban to rural gradient in the Chesapeake Bay watershed. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	116
68	Ecosystem processes at the watershed scale: Hydrologic vegetation gradient as an indicator for lateral hydrologic connectivity of headwater catchments. <i>Water Resources Research</i> , 2012, 48, .	4.2	82
69	Distributed Hydrologic Modeling in the Suburban Landscape: Assessing Parameter Transferability from Gauged Reference Catchments ¹ . <i>Journal of the American Water Resources Association</i> , 2012, 48, 546-557.	2.4	12
70	Tracking Nonpoint Source Nitrogen Pollution in Human-Impacted Watersheds. <i>Environmental Science & Technology</i> , 2011, 45, 8225-8232.	10.0	437
71	Topography-mediated controls on local vegetation phenology estimated from MODIS vegetation index. <i>Landscape Ecology</i> , 2011, 26, 541-556.	4.2	119
72	Downscaling real-time vegetation dynamics by fusing multi-temporal MODIS and Landsat NDVI in topographically complex terrain. <i>Remote Sensing of Environment</i> , 2011, 115, 2499-2512.	11.0	119

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73	Evaluation of the National Land Cover Database for Hydrologic Applications in Urban and Suburban Baltimore, Maryland. <i>Journal of the American Water Resources Association</i> , 2010, 46, 429-442.	2.4	32
74	Land Use and Climate Variability Amplify Contaminant Pulses. <i>Eos</i> , 2010, 91, 221-222.	0.1	43
75	Integrated Ecohydrologic Research and Hydroinformatics. <i>Journal of Contemporary Water Research and Education</i> , 2009, 142, 16-24.	0.7	0
76	Energy, water, and carbon fluxes in a loblolly pine stand: Results from uniform and gap canopy models with comparisons to eddy flux data. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	22
77	Hydroecological linkages in urbanizing watersheds: An empirical assessment of in-stream nitrate loss and evidence of saturation kinetics. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	12
78	Ecosystem processes at the watershed scale: Extending optimality theory from plot to catchment. <i>Water Resources Research</i> , 2009, 45, .	4.2	78
79	Nitrate Leaching and Nitrous Oxide Flux in Urban Forests and Grasslands. <i>Journal of Environmental Quality</i> , 2009, 38, 1848-1860.	2.0	146
80	Exchanges across Land-Water-Scape Boundaries in Urban Systems. <i>Annals of the New York Academy of Sciences</i> , 2008, 1134, 213-232.	3.8	52
81	Understanding, Managing, and Minimizing Urban Impacts on Surface Water Nitrogen Loading. <i>Annals of the New York Academy of Sciences</i> , 2008, 1134, 61-96.	3.8	147
82	Evaluating drought effect on MODIS Gross Primary Production (GPP) with an ecohydrological model in the mountainous forest, East Asia. <i>Global Change Biology</i> , 2008, 14, 1037-1056.	9.5	69
83	Interaction between Urbanization and Climate Variability Amplifies Watershed Nitrate Export in Maryland. <i>Environmental Science & Technology</i> , 2008, 42, 5872-5878.	10.0	229
84	Beyond Urban Legends: An Emerging Framework of Urban Ecology, as Illustrated by the Baltimore Ecosystem Study. <i>BioScience</i> , 2008, 58, 139-150.	4.9	288
85	Streamflow distribution of non-point source nitrogen export from urban-rural catchments in the Chesapeake Bay watershed. <i>Water Resources Research</i> , 2008, 44, .	4.2	133
86	Climatological Perspectives on the Rainfall Characteristics Associated with Landslides in Western North Carolina. <i>Physical Geography</i> , 2008, 29, 289-305.	1.4	26
87	Effects of Urban Land-Use Change on Biogeochemical Cycles. , 2007, , 45-58.		55
88	Using Transects to Sample Digital Orthophotography of Urbanizing Catchments to Provide Landscape Position Descriptions. <i>GIScience and Remote Sensing</i> , 2006, 43, 323-351.	5.9	4
89	Land use context and natural soil controls on plant community composition and soil nitrogen and carbon dynamics in urban and rural forests. <i>Forest Ecology and Management</i> , 2006, 236, 177-192.	3.2	115
90	From The Cover: Increased salinization of fresh water in the northeastern United States. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 13517-13520.	7.1	731

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91	MVP: a model to simulate the spatial patterns of photosynthetically active radiation under discrete forest canopies. Canadian Journal of Forest Research, 2004, 34, 1192-1203.	1.7	20
92	Nitrogen input from residential lawn care practices in suburban watersheds in Baltimore county, MD. Journal of Environmental Planning and Management, 2004, 47, 737-755.	4.5	181
93	Nitrogen Fluxes and Retention in Urban Watershed Ecosystems. Ecosystems, 2004, 7, 393.	3.4	374
94	Down by the riverside: urban riparian ecology. Frontiers in Ecology and the Environment, 2003, 1, 315-321.	4.0	423
95	Multi-objective parameter estimation for simulating canopy transpiration in forested watersheds. Journal of Hydrology, 2003, 277, 230-247.	5.4	28
96	Soil Nitrogen Cycle Processes in Urban Riparian Zones. Environmental Science & Technology, 2002, 36, 4547-4552.	10.0	260
97	The potential impact of flooding on confined animal feeding operations in eastern North Carolina.. Environmental Health Perspectives, 2002, 110, 387-391.	6.0	83
98	Evaluating explicit and implicit routing for watershed hydro-ecological models of forest hydrology at the small catchment scale. Hydrological Processes, 2001, 15, 1415-1439.	2.6	62
99	Forest ecosystem processes at the watershed scale: hydrological and ecological controls of nitrogen export. Hydrological Processes, 2001, 15, 2013-2028.	2.6	129
100	Simulating runoff behavior in an urbanizing watershed. Computers, Environment and Urban Systems, 2000, 24, 5-22.	7.1	229
101	Modelling Watersheds as Spatial Object Hierarchies: Structure and Dynamics. Transactions in GIS, 2000, 4, 181-196.	2.3	57
102	Sensitivity of a high-elevation rocky mountain watershed to altered climate and CO2. Water Resources Research, 2000, 36, 89-99.	4.2	65
103	Continuous modeling of intermittent stormflows on a semi-arid agricultural catchment. Journal of Hydrology, 1999, 226, 11-29.	5.4	13
104	Simulations of snow distribution and hydrology in a mountain basin. Water Resources Research, 1999, 35, 1587-1603.	4.2	106
105	Extraction and representation of nested catchment areas from digital elevation models in lake-dominated topography. Water Resources Research, 1998, 34, 897-901.	4.2	47
106	Export of nitrogen from catchments within a temperate forest: Evidence for a unifying mechanism regulated by variable source area dynamics. Water Resources Research, 1998, 34, 3105-3120.	4.2	261
107	Exploring functional similarity in the export of Nitrate-N from forested catchments: A mechanistic modeling approach. Water Resources Research, 1998, 34, 3079-3093.	4.2	94
108	Derivation of Soil Properties Using a Soil Land Inference Model (SoLIM). Soil Science Society of America Journal, 1997, 61, 523-533.	2.2	170

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109	Variability of water fluxes through the black spruce (<i>Picea mariana</i>) canopy and feather moss (<i>Pleurozium schreberi</i>) carpet in the boreal forest of Northern Manitoba. <i>Journal of Hydrology</i> , 1997, 196, 310-323.	5.4	73
110	Forest ecosystem processes at the watershed scale: dynamic coupling of distributed hydrology and canopy growth. <i>Hydrological Processes</i> , 1997, 11, 1197-1217.	2.6	73
111	Regulation of Nitrate-N Release from Temperate Forests: A Test of the N Flushing Hypothesis. <i>Water Resources Research</i> , 1996, 32, 3337-3354.	4.2	268
112	Automated soil inference under fuzzy logic. <i>Ecological Modelling</i> , 1996, 90, 123-145.	2.5	133
113	Ecosystem processes at the watershed scale: Sensitivity to potential climate change. <i>Limnology and Oceanography</i> , 1996, 41, 928-938.	3.1	53
114	A strategic framework to eco-regionalize Ontario. <i>Environmental Monitoring and Assessment</i> , 1996, 39, 85-96.	2.7	8
115	Modelling temporal variability in the carbon balance of a spruce/moss boreal forest. <i>Global Change Biology</i> , 1996, 2, 343-366.	9.5	138
116	A Strategic Framework to Eco-Regionalize Ontario. , 1996, , 85-96.		5
117	A Knowledge-Based Approach to Data Integration for Soil Mapping. <i>Canadian Journal of Remote Sensing</i> , 1994, 20, 408-418.	2.4	94
118	Effect of land surface representation on forest water and carbon budgets. <i>Journal of Hydrology</i> , 1993, 150, 749-772.	5.4	76
119	Alpine Treeline Growth Variability: Simulation Using an Ecosystem Process Model. <i>Arctic and Alpine Research</i> , 1993, 25, 175.	1.3	13
120	Forest ecosystem processes at the watershed scale: incorporating hillslope hydrology. <i>Agricultural and Forest Meteorology</i> , 1993, 63, 93-126.	4.8	306
121	Classification of higher order topographic objects on digital terrain data. <i>Computers, Environment and Urban Systems</i> , 1992, 16, 473-496.	7.1	9
122	Forest ecosystem processes at the watershed scale: basis for distributed simulation. <i>Ecological Modelling</i> , 1991, 56, 171-196.	2.5	162
123	Distributed parameterization of complex terrain. <i>Surveys in Geophysics</i> , 1991, 12, 249-270.	4.6	4
124	Distributed Parameterization of Complex Terrain. , 1991, , 249-270.		4
125	Automating object representation of drainage basins. <i>Computers and Geosciences</i> , 1990, 16, 787-810.	4.2	33
126	A terrain-based watershed information system. <i>Hydrological Processes</i> , 1989, 3, 151-162.	2.6	81

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127	Spatial Aggregation of Complex Terrain. Geographical Analysis, 1989, 21, 279-293.	3.5	42
128	Strategies for large-scale, distributed hydrologic simulation. Applied Mathematics and Computation, 1988, 27, 23-37.	2.2	28
129	Effects of spatial variability and scale with implications to hydrologic modeling. Journal of Hydrology, 1988, 102, 29-47.	5.4	558
130	Topographic Partition of Watersheds with Digital Elevation Models. Water Resources Research, 1986, 22, 15-24.	4.2	564
131	Field parameterization of an empirical sheetwash transport equation. Catena, 1985, 12, 281-290.	5.0	15
132	Application of a photosynthesis model to an agricultural region of varied climates: California. Agricultural Meteorology, 1981, 24, 201-217.	0.6	10
133	Mapping Regional Forest Evapotranspiration And Photosynthesis By Coupling Satellite Data With Ecosystem Simulation. , 0, , .		1
134	Comparison of linear least squares unmixing methods and Gaussian maximum likelihood classification. , 0, , .		0
135	Sensitivity of Remotely Sensed Vegetation to Hydrologic Predictors across the Colorado River Basin, 2001-2019. Journal of the American Water Resources Association, 0, , .	2.4	1