Charuleka Varadharajan

List of Publications by Year
in descending order

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36 papers	1,505 citations	430754 18 h-index	345118 36 g-index
46 all docs	46 docs citations	46 times ranked	2374 citing authors

#	Article	IF	Citations
1	The iLab Shared Architecture: A Web Services Infrastructure to Build Communities of Internet Accessible Laboratories. Proceedings of the IEEE, 2008, 96, 931-950.	16.4	347
2	Effect of Dissolved CO₂ on a Shallow Groundwater System: A Controlled Release Field Experiment. Environmental Science & Technology, 2013, 47, 298-305.	4.6	168
3	The East River, Colorado, Watershed: A Mountainous Community Testbed for Improving Predictive Understanding of Multiscale Hydrologicalâ€“Biogeochemical Dynamics. Vadose Zone Journal, 2018, 17, 1-25.	1.3	115
4	A conduit dilation model of methane venting from lake sediments. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	88
5	Benchmarking and parameter sensitivity of physiological and vegetation dynamics using the Functionally Assembled Terrestrial Ecosystem Simulator (FATES) at Barro Colorado Island, Panama. Biogeosciences, 2020, 17, 3017-3044.	1.3	82
6	Identifying chemicals of concern in hydraulic fracturing fluids used for oil production. Environmental Pollution, 2017, 220, 413-420.	3.7	77
7	Timeâ€series analysis of highâ€resolution ebullition fluxes from a stratified, freshwater lake. Journal of Geophysical Research, 2012, 117, .	3.3	69
8	Reoxidation of Chromium(III) Products Formed under Different Biogeochemical Regimes. Environmental Science & Technology, 2017, 51, 4918-4927.	4.6	60
9	Surrogate optimization of deep neural networks for groundwater predictions. Journal of Global Optimization, 2021, 81, 203-231.	1.1	40
10	A laboratory study of the initial effects of dissolved carbon dioxide (CO2) on metal release from shallow sediments. International Journal of Greenhouse Gas Control, 2013, 19, 183-211.	2.3	36
11	On the mobilization of metals by CO₂ leakage into shallow aquifers: exploring release mechanisms by modeling field and laboratory experiments. , 2015, 5, 403-418.		34
12	Surveys, simulation and single-cell assays relate function and phylogeny in a lake ecosystem. Nature Microbiology, 2016, 1, 16130.	5.9	33
13	Integrating airborne remote sensing and field campaigns for ecology and Earth system science. Methods in Ecology and Evolution, 2020, 11, 1492-1508.	2.2	33
14	A lowâ€cost automated trap to measure bubbling gas fluxes. Limnology and Oceanography: Methods, 2010, 8, 363-375.	1.0	29
15	Can machine learning accelerate process understanding and decisionâ€relevant predictions of river water quality?. Hydrological Processes, 2022, 36, .	1.1	26
16	Divergent Aquifer Biogeochemical Systems Converge on Similar and Unexpected Cr(VI) Reduction Products. Environmental Science & Technology, 2014, 48, 10699-10706.	4.6	24
17	Emerging technologies and radical collaboration to advance predictive understanding of watershed hydrobiogeochemistry. Hydrological Processes, 2020, 34, 3175-3182.	1.1	24
18	Impact of Input Feature Selection on Groundwater Level Prediction From a Multi-Layer Perceptron Neural Network. Frontiers in Water, 2020, 2, .	1.0	23

#	Article	IF	Citations
19	A reporting format for leaf-level gas exchange data and metadata. Ecological Informatics, 2021, 61, 101232.	2.3	22
20	A metadata reporting framework (FRAMES) for synthesis of ecohydrological observations. Ecological Informatics, 2017, 42, 148-158.	2.3	18
21	Challenges in Building an End-to-End System for Acquisition, Management, and Integration of Diverse Data From Sensor Networks in Watersheds: Lessons From a Mountainous Community Observatory in East River, Colorado. IEEE Access, 2019, 7, 182796-182813.	2.6	18
22	Species-Specific Shifts in Diurnal Sap Velocity Dynamics and Hysteretic Behavior of Ecophysiological Variables During the 2015â€“2016 El NiÃ±o Event in the Amazon Forest. Frontiers in Plant Science, 2019, 10, 830.	1.7	17
23	Precipitation mediates sap flux sensitivity to evaporative demand in the neotropics. Oecologia, 2019, 191, 519-530.	0.9	14
24	Stream Temperature Predictions for River Basin Management in the Pacific Northwest and Mid-Atlantic Regions Using Machine Learning. Water (Switzerland), 2022, 14, 1032.	1.2	13
25	Impacts of elevated dissolved CO2 on a shallow groundwater system: Reactive transport modeling of a controlled-release field test. Chemical Geology, 2016, 447, 117-132.	1.4	12
26	Launching an Accessible Archive of Environmental Data. Eos, 2019, 100, .	0.1	12
27	Characterization of Chromium Bioremediation Products in Flowâ€Through Column Sediments Using Microâ€Xâ€ray Fluorescence and Xâ€ray Absorption Spectroscopy. Journal of Environmental Quality, 2015, 44, 729-738.	1.0	11
28	Sample Identifiers and Metadata to Support Data Management and Reuse in Multidisciplinary Ecosystem Sciences. Data Science Journal, 2021, 20, 11.	0.6	11
29	Calibration, measurement, and characterization of soil moisture dynamics in a central Amazonian tropical forest. Vadose Zone Journal, 2020, 19, e20070.	1.3	10
30	The Colorado East River Community Observatory Data Collection. Hydrological Processes, 2021, 35, e14243.	1.1	10
31	A Guide to Using GitHub for Developing and Versioning Data Standards and Reporting Formats. Earth and Space Science, 2021, 8, e2021EA001797.	1.1	7
32	BASIN-3D: A brokering framework to integrate diverse environmental data. Computers and Geosciences, 2022, 159, 105024.	2.0	4
33	The future low-temperature geochemical data-scape as envisioned by the U.S. geochemical community. Computers and Geosciences, 2021, 157, 104933.	2.0	3
34	Guidelines for Publicly Archiving Terrestrial Model Data to Enhance Usability, Intercomparison, and Synthesis. Data Science Journal, 2022, 21, 3.	0.6	3
35	Urbanization and aridity mediate distinct salinity response to floods in rivers and streams across the contiguous United States. Water Research, 2022, 220, 118664.	5.3	3
36	Balancing the needs of consumers and producers for scientific data collections. Ecological Informatics, 2021, 62, 101251.	2.3	2