

Debsunder Dutta

List of Publications by Citations

Source: <https://exaly.com/author-pdf/347961/debsunder-dutta-publications-by-citations.pdf>

Version: 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69

papers

2,149

citations

28

h-index

44

g-index

83

ext. papers

2,569

ext. citations

5.3

avg, IF

5.48

L-index

#	Paper	IF	Citations
69	The future of hydrology: An evolving science for a changing world. <i>Water Resources Research</i> , 2010 , 46,	5.4	391
68	Ecohydrologic process networks: 1. Identification. <i>Water Resources Research</i> , 2009 , 45,	5.4	121
67	Precipitation Recycling Variability and Ecoclimatological Stability: A Study Using NARR Data. Part II: North American Monsoon Region. <i>Journal of Climate</i> , 2008 , 21, 5187-5203	4.4	93
66	Mitigating land loss in coastal Louisiana by controlled diversion of Mississippi River sand. <i>Nature Geoscience</i> , 2012 , 5, 534-537	18.3	85
65	Typology of hydrologic predictability. <i>Water Resources Research</i> , 2011 , 47,	5.4	79
64	Kinematic dispersion in stream networks 1. Coupling hydraulic and network geometry. <i>Water Resources Research</i> , 2002 , 38, 26-1-26-14	5.4	73
63	Precipitation Recycling in the Indian Subcontinent during Summer Monsoon. <i>Journal of Hydrometeorology</i> , 2014 , 15, 2050-2066	3.7	68
62	Simultaneous improvement in productivity, water use, and albedo through crop structural modification. <i>Global Change Biology</i> , 2014 , 20, 1955-67	11.4	68
61	Role of Oceanic and Land Moisture Sources and Transport in the Seasonal and Interannual Variability of Summer Monsoon in India. <i>Journal of Climate</i> , 2017 , 30, 1839-1859	4.4	56
60	Ecohydrologic process networks: 2. Analysis and characterization. <i>Water Resources Research</i> , 2009 , 45,	5.4	52
59	Three-dimensional volume-averaged soil moisture transport model with a scalable parameterization of subgrid topographic variability. <i>Water Resources Research</i> , 2007 , 43,	5.4	44
58	Temporal information partitioning: Characterizing synergy, uniqueness, and redundancy in interacting environmental variables. <i>Water Resources Research</i> , 2017 , 53, 5920-5942	5.4	43
57	Kinematic dispersion in stream networks 2. Scale issues and self-similar network organization. <i>Water Resources Research</i> , 2002 , 38, 27-1-27-15	5.4	39
56	Information Driven Ecohydrologic Self-Organization. <i>Entropy</i> , 2010 , 12, 2085-2096	2.8	38
55	From the Ground to Space: Using Solar-Induced Chlorophyll Fluorescence to Estimate Crop Productivity. <i>Geophysical Research Letters</i> , 2020 , 47, e2020GL087474	4.9	37
54	Impacts of hydraulic redistribution on grass-tree competition vs facilitation in a semi-arid savanna. <i>New Phytologist</i> , 2017 , 215, 1451-1461	9.8	37
53	Power law scaling of topographic depressions and their hydrologic connectivity. <i>Geophysical Research Letters</i> , 2014 , 41, 1553-1559	4.9	36

52	Disentangling Changes in the Spectral Shape of Chlorophyll Fluorescence: Implications for Remote Sensing of Photosynthesis. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019 , 124, 1491-1507	3.7	35
51	The influence of photosynthetic acclimation to rising CO2 and warmer temperatures on leaf and canopy photosynthesis models. <i>Global Biogeochemical Cycles</i> , 2015 , 29, 194-206	5.9	35
50	Competitive and mutualistic dependencies in multispecies vegetation dynamics enabled by hydraulic redistribution. <i>Water Resources Research</i> , 2012 , 48,	5.4	35
49	Hydrocomplexity: Addressing water security and emergent environmental risks. <i>Water Resources Research</i> , 2015 , 51, 5827-5838	5.4	34
48	Assessment of floodplain vulnerability during extreme Mississippi River flood 2011. <i>Environmental Science & Technology</i> , 2014 , 48, 2619-25	10.3	33
47	Temporal Information Partitioning Networks (TIPNets): A process network approach to infer ecohydrologic shifts. <i>Water Resources Research</i> , 2017 , 53, 5899-5919	5.4	33
46	Role of Oceanic and Terrestrial Atmospheric Moisture Sources in Intraseasonal Variability of Indian Summer Monsoon Rainfall. <i>Scientific Reports</i> , 2017 , 7, 12729	4.9	32
45	Hydrogeomorphological differentiation between floodplains and terraces. <i>Earth Surface Processes and Landforms</i> , 2018 , 43, 218-228	3.7	32
44	Variability, Feedback, and Cooperative Process Dynamics: Elements of a Unifying Hydrologic Theory. <i>Geography Compass</i> , 2007 , 1, 1338-1360	2.4	29
43	Patterns of change in high frequency precipitation variability over North America. <i>Scientific Reports</i> , 2017 , 7, 10853	4.9	28
42	Passive regulation of soil biogeochemical cycling by root water transport. <i>Water Resources Research</i> , 2013 , 49, 3729-3746	5.4	28
41	Numerical simulations of hydraulic redistribution across climates: The role of the root hydraulic conductivities. <i>Water Resources Research</i> , 2015 , 51, 8529-8550	5.4	27
40	Assessing the value of seasonal climate forecast information through an end-to-end forecasting framework: Application to U.S. 2012 drought in central Illinois. <i>Water Resources Research</i> , 2014 , 50, 6592-6609	5.4	24
39	Functional Topology of Evolving Urban Drainage Networks. <i>Water Resources Research</i> , 2017 , 53, 8966-8979	5.4	24
38	Emergence of self-similar tree network organization. <i>Complexity</i> , 2008 , 13, 30-37	1.6	24
37	Dynamic process connectivity explains ecohydrologic responses to rainfall pulses and drought. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E8604-E8613	11.5	21
36	Critical Zone services as environmental assessment criteria in intensively managed landscapes. <i>Earth's Future</i> , 2017 , 5, 617-632	7.9	21
35	Interaction Between Ecohydrologic Dynamics and Microtopographic Variability Under Climate Change. <i>Water Resources Research</i> , 2017 , 53, 8383-8403	5.4	20

34	Hydraulic geometry and the nonlinearity of the network instantaneous response. <i>Water Resources Research</i> , 2004 , 40,	5.4	19
33	Optimal inverse estimation of ecosystem parameters from observations of carbon and energy fluxes. <i>Biogeosciences</i> , 2019 , 16, 77-103	4.6	18
32	The Intensively Managed Landscape Critical Zone Observatory: A Scientific Testbed for Understanding Critical Zone Processes in Agroecosystems. <i>Vadose Zone Journal</i> , 2018 , 17, 1-21	2.7	17
31	Characterizing Vegetation Canopy Structure Using Airborne Remote Sensing Data. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017 , 55, 1160-1178	8.1	16
30	Predicting the direct and indirect impacts of climate change on malaria in coastal Kenya. <i>PLoS ONE</i> , 2019 , 14, e0211258	3.7	16
29	Mean age distribution of inorganic soil-nitrogen. <i>Water Resources Research</i> , 2016 , 52, 5516-5536	5.4	14
28	Impact of Hydraulic Redistribution on Multispecies Vegetation Water Use in a Semiarid Savanna Ecosystem: An Experimental and Modeling Synthesis. <i>Water Resources Research</i> , 2018 , 54, 4009-4027	5.4	13
27	Role of Micro-Topographic Variability on the Distribution of Inorganic Soil-Nitrogen Age in Intensively Managed Landscape. <i>Water Resources Research</i> , 2017 , 53, 8404-8422	5.4	12
26	Impacts of Subsurface Tile Drainage on Age-Dependent Concentration Dynamics of Inorganic Nitrogen in Soil. <i>Water Resources Research</i> , 2019 , 55, 1470-1489	5.4	12
25	Wetlandscape Fractal Topography. <i>Geophysical Research Letters</i> , 2018 , 45, 6983-6991	4.9	12
24	Debates: Does Information Theory Provide a New Paradigm for Earth Science? Causality, Interaction, and Feedback. <i>Water Resources Research</i> , 2020 , 56, e2019WR024940	5.4	11
23	. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2015 , 53, 5133-5147	8.1	10
22	Three-Dimensional Modeling of the Coevolution of Landscape and Soil Organic Carbon. <i>Water Resources Research</i> , 2019 , 55, 1218-1241	5.4	9
21	Comment on "Climate and agricultural land use change impacts on streamflow in the upper midwestern United States" by Satish C. Gupta et al.. <i>Water Resources Research</i> , 2016 , 52, 7536-7539	5.4	9
20	Signatures of Hydrologic Function Across the Critical Zone Observatory Network. <i>Water Resources Research</i> , 2021 , 57, e2019WR026635	5.4	9
19	Modeling the Role of Root Exudation in Critical Zone Nutrient Dynamics. <i>Water Resources Research</i> , 2020 , 56, e2019WR026606	5.4	8
18	Power-Law Behavior in Geometric Characteristics of Full Binary Trees. <i>Journal of Statistical Physics</i> , 2011 , 142, 862-878	1.5	7
17	Decomposing reflectance spectra to track gross primary production in a subalpine evergreen forest. <i>Biogeosciences</i> , 2020 , 17, 4523-4544	4.6	7

16	Tracking Seasonal and Interannual Variability in Photosynthetic Downregulation in Response to Water Stress at a Temperate Deciduous Forest. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020 , 125, e2018JG005002	3.7	7
15	Stochastic lattice-based modelling of malaria dynamics. <i>Malaria Journal</i> , 2018 , 17, 250	3.6	5
14	Interactions of information transfer along separable causal paths. <i>Physical Review E</i> , 2018 , 97, 042310	2.4	4
13	Radiocarbon and Stable Carbon Isotopes of Labile and Inert Organic Carbon in the Critical Zone Observatory in Illinois, USA. <i>Radiocarbon</i> , 2018 , 60, 989-999	4.6	4
12	Characterizing relative degrees of clumping structure in vegetation canopy using waveform LiDAR. <i>Remote Sensing of Environment</i> , 2019 , 232, 111281	13.2	4
11	Reply to comment by J. Szilagyi on Bower law catchment-scale recessions arising from heterogeneous linear small-scale dynamics. <i>Water Resources Research</i> , 2009 , 45,	5.4	4
10	Sustainability of soil organic carbon in consolidated gully land in China's Loess Plateau. <i>Scientific Reports</i> , 2020 , 10, 16927	4.9	4
9	Using Information Flow for Whole System Understanding From Component Dynamics. <i>Water Resources Research</i> , 2019 , 55, 8305-8329	5.4	4
8	Effect of Spatial Filtering on Characterizing Soil Properties From Imaging Spectrometer Data. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2017 , 10, 4149-4170	4.7	2
7	A Changing Climatology of Precipitation Persistence across the United States Using Information-Based Measures. <i>Journal of Hydrometeorology</i> , 2019 , 20, 1649-1666	3.7	2
6	Brown Dog 2018 ,		2
5	Understanding Hydrological Cycle Dynamics Due to Changing Land Use and Land Cover: Congo Basin Case Study 2008 ,		2
4	A Framework for Global Characterization of Soil Properties Using Repeat Hyperspectral Satellite Data. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2019 , 57, 3308-3323	8.1	2
3	Hydrologic Dispersion in Fluvial Networks 2008 , 307-335		1
2	Discerning the thermodynamic feasibility of the spontaneous coexistence of multiple functional vegetation groups. <i>Scientific Reports</i> , 2020 , 10, 18321	4.9	0
1	Hydraulic redistribution buffers climate variability and regulates grass-tree interactions in a semiarid riparian savanna. <i>Ecohydrology</i> , 2021 , 14, e2271	2.5	0