Denis Hughes

List of Publications by Year
in descending order

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107 papers	4,127 citations	186209 28 h-index	133188 59 g-index
115 all docs	115 docs citations	115 times ranked	3930 citing authors

#	Article	IF	Citations
1	A decade of Predictions in Ungauged Basins (PUB)â€"a review. Hydrological Sciences Journal, 2013, 58, 1198-1255.	1.2	821
2	â€œPanta Rheiâ€"Everything Flowsâ€• Change in hydrology and societyâ€"The IAHS Scientific Decade 2013â€“2022. Hydrological Sciences Journal, 2013, 58, 1256-1275.	1.2	569
3	Comparison of satellite rainfall data with observations from gauging station networks. Journal of Hydrology, 2006, 327, 399-410.	2.3	160
4	A desktop model used to provide an initial estimate of the ecological instream flow requirements of rivers in South Africa. Journal of Hydrology, 2003, 270, 167-181.	2.3	137
5	Daily flow time series patching or extension: a spatial interpolation approach based on flow duration curves. Hydrological Sciences Journal, 1996, 41, 851-871.	1.2	135
6	Impact of climate change and development scenarios on flow patterns in the Okavango River. Journal of Hydrology, 2006, 331, 43-57.	2.3	117
7	Automated estimation and analyses of meteorological drought characteristics from monthly rainfall data. Environmental Modelling and Software, 2007, 22, 880-890.	1.9	103
8	Regional calibration of the Pitman model for the Okavango River. Journal of Hydrology, 2006, 331, 30-42.	2.3	99
9	Estimating rainfall and water balance over the Okavango River Basin for hydrological applications. Journal of Hydrology, 2006, 331, 18-29.	2.3	95
10	Hydrology-based assessment of environmental flows: an example from Nepal. Hydrological Sciences Journal, 2006, 51, 207-222.	1.2	94
11	Incorporating uncertainty in hydrological predictions for gauged and ungauged basins in southern Africa. Hydrological Sciences Journal, 2012, 57, 1000-1019.	1.2	85
12	Regionalization of daily flow characteristics in part of the Eastern Cape, South Africa. Hydrological Sciences Journal, 1997, 42, 919-936.	1.2	81
13	Transmission losses to alluvium and associated moisture dynamics in a semiarid ephemeral channel system in Southern Africa. Hydrological Processes, 1992, 6, 45-53.	1.1	67
14	Providing hydrological information and data analysis tools for the determination of ecological instream flow requirements for South African rivers. Journal of Hydrology, 2001, 241, 140-151.	2.3	66
15	Basin-scale performance of a semidistributed rainfall-runoff model for hydrological predictions and water resources assessment of large rivers: The Congo River. Water Resources Research, 2014, 50, 1174-1188.	1.7	65
16	Uncertainty in water resources availability in the Okavango River basin as a result of climate change. Hydrology and Earth System Sciences, 2011, 15, 931-941.	1.9	64
17	Monthly rainfall-runoff models applied to arid and semiarid catchments for water resource estimation purposes. Hydrological Sciences Journal, 1995, 40, 751-769.	1.2	55
18	A comparison of recharge estimates to a fractured sedimentary aquifer in South Africa from a chloride mass balance and an integrated surface-subsurface model. Journal of Hydrology, 1996, 179, 111-136.	2.3	52

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19	A review of 40 years of hydrological science and practice in southern Africa using the Pitman rainfall-runoff model. Journal of Hydrology, 2013, 501, 111-124.	2.3	51
20	Water flow dynamics in the Okavango River Basin and Deltaâ€“â€“a prerequisite for the ecosystems of the Delta. Physics and Chemistry of the Earth, 2003, 28, 1165-1172.	1.2	50
21	Estimating the uncertainty in simulating the impacts of small farm dams on streamflow regimes in South Africa. Hydrological Sciences Journal, 2010, 55, 578-592.	1.2	50
22	Hydrological model uncertainty assessment in southern Africa. Journal of Hydrology, 2010, 387, 221-232.	2.3	47
23	Welsh floodplain studies. Journal of Hydrology, 1980, 46, 35-49.	2.3	46
24	Application of satellite-derived rainfall estimates to extend water resource simulation modelling in South Africa. Water S A, 2018, 34, 1.	0.2	40
25	A small-scale flood plain. Sedimentology, 1982, 29, 891-895.	1.6	36
26	Climate change and impacts on the hydrology of the Congo Basin: The case of the northern sub-basins of the Oubangui and Sangha Rivers. Physics and Chemistry of the Earth, 2012, 50-52, 72-83.	1.2	36
27	A semi-distributed, variable time interval model of catchment hydrologyâ€”structure and parameter estimation procedures. Journal of Hydrology, 1994, 155, 265-291.	2.3	35
28	Integrating hydrology, hydraulics and ecological response into a flexible approach to the determination of environmental water requirements for rivers. Environmental Modelling and Software, 2010, 25, 910-918.	1.9	32
29	A management-oriented water quality model for data scarce catchments. Environmental Modelling and Software, 2017, 97, 93-111.	1.9	32
30	Simulating wetland impacts on stream flow in southern Africa using a monthly hydrological model. Hydrological Processes, 2014, 28, 1775-1786.	1.1	31
31	Evaluation of the Drivers Responsible for Flooding in Africa. Water Resources Research, 2021, 57, e2021WR029595.	1.7	27
32	Evaluating the performance of a deterministic daily rainfallâ€“runoff model in a low-flow context. Hydrological Processes, 1998, 12, 797-812.	1.1	25
33	A generic database and spatial interface for the application of hydrological and water resource models. Computers and Geosciences, 2006, 32, 1389-1402.	2.0	25
34	Initial calibration of a semi-distributed rainfall runoff model for the Congo River basin. Physics and Chemistry of the Earth, 2011, 36, 761-774.	1.2	25
35	Towards revised physically based parameter estimation methods for the Pitman monthly rainfall-runoff model. Water S A, 2019, 34, 183.	0.2	25
36	A new approach to rapid, desktop-level, environmental flow assessments for rivers in South Africa. Hydrological Sciences Journal, 2014, 59, 673-687.	1.2	24

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37	Prediction of sediment yield of the Inxu River catchment (South Africa) using the MUSLE. International Soil and Water Conservation Research, 2021, 9, 37-48.	3.0	24
38	The Thyrotropinâ€Releasing Hormone Secretory System in the Hypothalamus of the Siberian Hamster in Long and Short Photoperiods. Journal of Neuroendocrinology, 2008, 20, 576-586.	1.2	23
39	Effect of Flow Distribution on Scale Formation in Plate and Frame Heat Exchangers. Chemical Engineering Research and Design, 1997, 75, 635-640.	2.7	21
40	Reliability of body condition scoring of sheep for cross-farm assessments. Small Ruminant Research, 2012, 104, 156-162.	0.6	21
41	Satellite earth observation as a tool to conceptualize hydrogeological fluxes in the Sandveld, South Africa. Hydrogeology Journal, 2013, 21, 1053-1070.	0.9	21
42	Soil moisture and runoff simulations using four catchment rainfall-runoff models. Journal of Hydrology, 1994, 158, 381-404.	2.3	18
43	Daily disaggregation of simulated monthly flows using different rainfall datasets in southern Africa. Journal of Hydrology: Regional Studies, 2015, 4, 153-171.	1.0	18
44	ADHI: the African Database of Hydrometric Indices (1950â€“2018). Earth System Science Data, 2021, 13, 1547-1560.	3.7	18
45	Regional droughts and food security relationships in the Zambezi River Basin. Physics and Chemistry of the Earth, 2011, 36, 977-983.	1.2	17
46	Facing a future water resources management crisis in sub-Saharan Africa. Journal of Hydrology: Regional Studies, 2019, 23, 100600.	1.0	17
47	Simulating temporal variability in catchment response using a monthly rainfallâ€“runoff model. Hydrological Sciences Journal, 2015, 60, 1286-1298.	1.2	16
48	Non-linear runoff routing â€” A comparison of solution methods. Journal of Hydrology, 1986, 85, 339-347.	2.3	15
49	Unsaturated zone fracture flow contributions to stream flow: evidence for the process in South Africa and its importance. Hydrological Processes, 2010, 24, 767-774.	1.1	15
50	Hydrological modelling, process understanding and uncertainty in a southern African context: lessons from the northern hemisphere. Hydrological Processes, 2016, 30, 2419-2431.	1.1	15
51	Estimation of the parameters of an isolated event conceptual model from physical catchment characteristics. Hydrological Sciences Journal, 1989, 34, 539-557.	1.2	14
52	Assessment of three monthly rainfall-runoff models for estimating the water resource yield of semiarid catchments in Namibia. Hydrological Sciences Journal, 1998, 43, 283-297.	1.2	14
53	Continuous baseflow separation from time series of daily and monthly streamflow data. Water S A, 2004, 29, 43.	0.2	13
54	Hydrologic Modeling, Uncertainty, and Sensitivity in the Okavango Basin: Insights for Scenario Assessment. Journal of Hydrologic Engineering - ASCE, 2013, 18, 1767-1778.	0.8	13

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55	Spatial scale dependency issues in the application of the Modified Universal Soil Loss Equation (MUSLE). Hydrological Sciences Journal, 2018, 63, 1890-1900.	1.2	13
56	Regional water resources assessments using an uncertain modelling approach: The example of Swaziland. Journal of Hydrology: Regional Studies, 2017, 10, 47-60.	1.0	12
57	Variable time intervals in deterministic hydrological models. Journal of Hydrology, 1993, 143, 217-232.	2.3	10
58	Giant lymph node hyperplasia a diagnostic dilemma in the neck. Auris Nasus Larynx, 2001, 28, 185-188.	0.5	10
59	Initial evaluation of a simple coupled surface and ground water hydrological model to assess sustainable ground water abstractions at the regional scale. Hydrology Research, 2010, 41, 1-12.	1.1	10
60	Accelerating a hydrological uncertainty ensemble model using graphics processing units (GPUs). Computers and Geosciences, 2014, 62, 178-186.	2.0	10
61	Linking Hydrological Uncertainty with Equitable Allocation for Water Resources Decision-Making. Water Resources Management, 2017, 31, 269-282.	1.9	10
62	An isolated event model based upon direct runoff calculations using an implicit source area concept. Hydrological Sciences Journal, 1984, 29, 311-325.	1.2	9
63	The applicability of two single event models to catchments with different physical characteristics. Hydrological Sciences Journal, 1989, 34, 63-78.	1.2	9
64	A simple model to separately simulate point and diffuse nutrient signatures in stream flows. Hydrology Research, 2013, 44, 538-553.	1.1	9
65	Surface waterâ€“groundwater interactions in catchment scale water resources assessmentsâ€”understanding and hypothesis testing with a hydrological model. Hydrological Sciences Journal, 2015, , 1-16.	1.2	9
66	A review of aspects of hydrological sciences research in Africa over the past decade. Hydrological Sciences Journal, 0, , 1-15.	1.2	9
67	Joint editorial: Fostering innovation and improving impact assessment for journal publications in hydrology. Water Resources Research, 2016, 52, 2399-2402.	1.7	9
68	Disaggregating the components of a monthly water resources system model to daily values for use with a water quality model. Environmental Modelling and Software, 2016, 80, 122-131.	1.9	9
69	A simple approach to estimating channel transmission losses in large South African river basins. Journal of Hydrology: Regional Studies, 2019, 25, 100619.	1.0	9
70	Understanding and modelling the effects of wetland on the hydrology and water resources of large African river basins. Journal of Hydrology, 2021, 603, 127039.	2.3	9
71	The importance of operating rules and assessments of beneficial use in water resource allocation policy and management. Water Policy, 2009, 11, 731-741.	0.7	8
72	Hydrological models: mathematics or science?. Hydrological Processes, 2010, 24, 2199-2201.	1.1	8

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73	Uncertain hydrological modelling: application of the Pitman model in the Great Ruaha River basin, Tanzania. Hydrological Sciences Journal, 0, , 1-15.	1.2	8
74	Regionalization of models for operational purposes in developing countries: an introduction. Hydrology Research, 2011, 42, 331-337.	1.1	7
75	The delineation of alluvial aquifers towards a better understanding of channel transmission losses in the Limpopo River Basin. Physics and Chemistry of the Earth, 2018, 108, 60-73.	1.2	7
76	Delineating wetland areas from the cut-and-fill method using a Digital Elevation Model (DEM). Southern African Geographical Journal, 2020, 102, 97-115.	0.9	7
77	Assessing development and climate variability impacts on water resources in the Zambezi River basin. Simulating future scenarios of climate and development. Journal of Hydrology: Regional Studies, 2020, 32, 100763.	1.0	7
78	Regionalising MUSLE factors for application to a data-scarce catchment. Proceedings of the International Association of Hydrological Sciences, 0, 377, 19-24.	1.0	7
79	Pregnancy related pituitary enlargement mimicking macroadenoma. British Journal of Neurosurgery, 2004, 18, 524-526.	0.4	6
80	Improving the visibility of hydrological sciences from developing countries. Hydrological Sciences Journal, 2014, 59, 1627-1635.	1.2	6
81	A method to disaggregate monthly flows to daily using daily rainfall observations: model design and testing. Hydrological Sciences Journal, 2015, , 1-15.	1.2	6
82	Simulating saturationâ€excess surface runâ€off in a semiâ€distributed hydrological model. Hydrological Processes, 2018, 32, 2685-2694.	1.1	6
83	The IFR process: beyond the specialist workshop. African Journal of Aquatic Science, 2000, 25, 183-190.	0.5	5
84	Hydrological education and training needs in sub-Saharan Africa: requirements, constraints and progress. Hydrology and Earth System Sciences, 2012, 16, 861-871.	1.9	5
85	Using targeted short-term field investigations to calibrate and evaluate the structure of a hydrological model. Hydrological Processes, 2014, 28, 2794-2809.	1.1	5
86	Establishing uncertainty ranges of hydrologic indices across climate and physiographic regions of the Congo River Basin. Journal of Hydrology: Regional Studies, 2020, 30, 100710.	1.0	5
87	Assessing development and climate variability impacts on water resources in the Zambezi River basin: Initial model calibration, uncertainty issues and performance. Journal of Hydrology: Regional Studies, 2020, 32, 100765.	1.0	5
88	Climate Change Impacts on Hydrology in Africa: Case Studies of River Basin Water Resources. Advances in Global Change Research, 2011, , 123-153.	1.6	4
89	Parameter and input data uncertainty estimation for the assessment of water resources in two sub-basins of the Limpopo River Basin. Proceedings of the International Association of Hydrological Sciences, 0, 378, 11-16.	1.0	4
90	Modelling of channel transmission loss processes in semi-arid catchments of southern Africa using the Pitman Model. Proceedings of the International Association of Hydrological Sciences, 0, 378, 17-22.	1.0	4

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91	Temporal Influences of Vegetation Cover (C) Dynamism on MUSLE Sediment Yield Estimates: NDVI Evaluation. Water (Switzerland), 2021, 13, 2707.	1.2	4
92	Problems of estimating hydrological characteristics for small catchments based on information from the South African national surface water resource database. Water S A, 2004, 30, 393.	0.2	3
93	Correcting bias in rainfall inputs to a semi-distributed hydrological model using downstream flow simulation errors. Hydrological Sciences Journal, 2017, 62, 2427-2439.	1.2	3
94	Quantification of water resources uncertainties in the Luvuvhu sub-basin of the Limpopo river basin. Physics and Chemistry of the Earth, 2018, 105, 52-58.	1.2	3
95	Unpacking some of the linkages between uncertainties in observational data and the simulation of different hydrological processes using the Pitman model in the data scarce Zambezi River basin. Hydrological Processes, 2021, 35, e14141.	1.1	3
96	Simulating Climate Impacts on Water Resources: Experience from the Okavango River, Southern Africa. Water Science and Technology Library, 2009, , 243-265.	0.2	3
97	Scientific and practical tools for dealing with water resource estimations for the future. Proceedings of the International Association of Hydrological Sciences, 0, 371, 23-28.	1.0	3
98	A simple model for assessing utilisable streamflow allocations in the context of the Ecological Reserve. Water S A, 2007, 32, .	0.2	2
99	Joint Editorial: Fostering innovation and improving impact assessment for journal publications in hydrology. Hydrology and Earth System Sciences, 2016, 20, 1081-1084.	1.9	2
100	Using satellite-based rainfall data to support the implementation of environmental water requirements in South Africa. Water S A, 2010, 36, .	0.2	1
101	Assessing the potential value of the regionalised input constraint indices for constraining hydrological model simulations in the Congo River Basin. Advances in Water Resources, 2022, 159, 104093.	1.7	1
102	JAMUNA RIVER 230 KV CROSSING - BANGLADESH II, DESIGN OF TRANSMISSION LINE.. Proceedings of the Institution of Civil Engineers, 1984, 76, 951-964.	0.1	0
103	8867-70 DISCUSSION. JAMUNA RIVER 230kV CROSSING, BANGLADESH.. Proceedings of the Institution of Civil Engineers, 1986, 80, 731-753.	0.1	0
104	ISSUES IN CONTEMPORARY GEOGRAPHICAL HYDROLOGY. Southern African Geographical Journal, 2002, 84, 139-144.	0.9	0
105	Environmental Flow Requirements Setting: Desktop Methods. , 2018, , 1825-1828.		0
106	Estimating spatial catchment natural hydrological response characteristics in Swaziland. Physics and Chemistry of the Earth, 2018, 106, 29-36.	1.2	0
107	Integrating Sediment (dis)Connectivity into a Sediment Yield Model for Semi-Arid Catchments. Land, 2021, 10, 1204.	1.2	0