Niko Wanders

List of Publications by Year
in descending order

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Version: 2024-02-01

69 papers	6,308 citations	87723 38 h-index	91712 69 g-index
129 all docs	129 docs citations	129 times ranked	7095 citing authors

#	Article	IF	Citations
1	Drought in the Anthropocene. Nature Geoscience, 2016, 9, 89-91.	5.4	537
2	Anthropogenic warming exacerbates European soil moisture droughts. Nature Climate Change, 2018, 8, 421-426.	8.1	439
3	PCR-GLOBWBÂ2: a 5â€‰arcmin global hydrological and water resources model. Geoscientific Model Development, 2018, 11, 2429-2453.	1.3	307
4	Drought in a human-modified world: reframing drought definitions, understanding, and analysis approaches. Hydrology and Earth System Sciences, 2016, 20, 3631-3650.	1.9	289
5	Human water consumption intensifies hydrological drought worldwide. Environmental Research Letters, 2013, 8, 034036.	2.2	265
6	Reconciling high-altitude precipitation in the upper Indus basin with glacier mass balances and runoff. Hydrology and Earth System Sciences, 2015, 19, 4673-4687.	1.9	240
7	Human and climate impacts on the 21st century hydrological drought. Journal of Hydrology, 2015, 526, 208-220.	2.3	230
8	The suitability of remotely sensed soil moisture for improving operational flood forecasting. Hydrology and Earth System Sciences, 2014, 18, 2343-2357.	1.9	222
9	Water shortages worsened by reservoir effects. Nature Sustainability, 2018, 1, 617-622.	11.5	213
10	Hydrological drought across the world: impact of climate and physical catchment structure. Hydrology and Earth System Sciences, 2013, 17, 1715-1732.	1.9	212
11	Humanâ€“water interface in hydrological modelling: current status and future directions. Hydrology and Earth System Sciences, 2017, 21, 4169-4193.	1.9	171
12	The benefits of using remotely sensed soil moisture in parameter identification of largeâ€scale hydrological models. Water Resources Research, 2014, 50, 6874-6891.	1.7	158
13	Threats of global warming to the worldâ€™s freshwater fishes. Nature Communications, 2021, 12, 1701.	5.8	157
14	How climate seasonality modifies drought duration and deficit. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4640-4656.	1.2	154
15	Climate change alters low flows in Europe under global warming of 1.5, 2, and 3â€Â°C. Hydrology and Earth System Sciences, 2018, 22, 1017-1032.	1.9	146
16	A Preliminary Study toward Consistent Soil Moisture from AMSR2. Journal of Hydrometeorology, 2015, 16, 932-947.	0.7	134
17	Anthropogenic Drought: Definition, Challenges, and Opportunities. Reviews of Geophysics, 2021, 59, e2019RG000683.	9.0	126
18	Four decades of microwave satellite soil moisture observations: Part 1. A review of retrieval algorithms. Advances in Water Resources, 2017, 109, 106-120.	1.7	122

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19	Global hydrological droughts in the 21st century under a changing hydrological regime. Earth System Dynamics, 2015, 6, 1-15.	2.7	109
20	Multi-model ensemble projections of European river floods and high flows at 1.5, 2, and 3 degrees global warming. Environmental Research Letters, 2018, 13, 014003.	2.2	104
21	Intensification of hydrological drought in California by human water management. Geophysical Research Letters, 2017, 44, 1777-1785.	1.5	99
22	A Climate Data Record (CDR) for the global terrestrial water budget: 1984â€“2010. Hydrology and Earth System Sciences, 2018, 22, 241-263.	1.9	91
23	Added Value of Large Ensemble Simulations for Assessing Extreme River Discharge in a 2ÂÂ°C Warmer World. Geophysical Research Letters, 2019, 46, 2093-2102.	1.5	88
24	The need to integrate flood and drought disaster risk reduction strategies. Water Security, 2020, 11, 100070.	1.2	83
25	Toward seamless hydrologic predictions across spatial scales. Hydrology and Earth System Sciences, 2017, 21, 4323-4346.	1.9	81
26	Assimilation of snow cover and snow depth into a snow model toÂestimate snow water equivalent and snowmelt runoff in aÂHimalayan catchment. Cryosphere, 2017, 11, 1647-1664.	1.5	71
27	Four decades of microwave satellite soil moisture observations: Part 2. Product validation and inter-satellite comparisons. Advances in Water Resources, 2017, 109, 236-252.	1.7	70
28	Highâ€Resolution Global Water Temperature Modeling. Water Resources Research, 2019, 55, 2760-2778.	1.7	70
29	Correction of real-time satellite precipitation with multi-sensor satellite observations of land surface variables. Remote Sensing of Environment, 2015, 160, 206-221.	4.6	69
30	Moving from drought hazard to impact forecasts. Nature Communications, 2019, 10, 4945.	5.8	67
31	Observation uncertainty of satellite soil moisture products determined with physically-based modeling. Remote Sensing of Environment, 2012, 127, 341-356.	4.6	66
32	Integrating remotely sensed surface water extent into continental scale hydrology. Journal of Hydrology, 2016, 543, 659-670.	2.3	53
33	Water security implications of coal-fired power plants financed through China's Belt and Road Initiative. Energy Policy, 2019, 132, 1101-1109.	4.2	53
34	Hydrological Forecasts and Projections for Improved Decision-Making in the Water Sector in Europe. Bulletin of the American Meteorological Society, 2019, 100, 2451-2472.	1.7	52
35	Development and Evaluation of a Pan-European Multimodel Seasonal Hydrological Forecasting System. Journal of Hydrometeorology, 2019, 20, 99-115.	0.7	51
36	Improved sub-seasonal meteorological forecast skill using weighted multi-model ensemble simulations. Environmental Research Letters, 2016, 11, 094007.	2.2	48

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37	Improved large-scale hydrological modelling through the assimilation of streamflow and downscaled satellite soil moisture observations. Hydrology and Earth System Sciences, 2016, 20, 3059-3076.	1.9	46
38	Attributing the 2017 Bangladesh floods from meteorological and hydrological perspectives. Hydrology and Earth System Sciences, 2019, 23, 1409-1429.	1.9	46
39	Understanding each other's models: an introduction and a standard representation of 16 global water models to support intercomparison, improvement, and communication. Geoscientific Model Development, 2021, 14, 3843-3878.	1.3	41
40	Spring enhancement and summer reduction in carbon uptake during the 2018 drought in northwestern Europe. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190509.	1.8	39
41	Vulnerability of existing and planned coal-fired power plants in Developing Asia to changes in climate and water resources. Energy and Environmental Science, 2019, 12, 3164-3181.	15.6	38
42	Future discharge drought across climate regions around the world modelled with a synthetic hydrological modelling approach forced by three general circulation models. Natural Hazards and Earth System Sciences, 2015, 15, 487-504.	1.5	37
43	Spatio-temporal analysis of compound hydro-hazard extremes across theÂUK. Advances in Water Resources, 2019, 130, 77-90.	1.7	37
44	Regional differentiation in climate change induced drought trends in the Netherlands. Environmental Research Letters, 2020, 15, 094081.	2.2	37
45	Correction of real-time satellite precipitation with satellite soil moisture observations. Hydrology and Earth System Sciences, 2015, 19, 4275-4291.	1.9	36
46	Diagnosing drought using the downstreamness concept: the effect of reservoir networks on drought evolution. Hydrological Sciences Journal, 2018, 63, 979-990.	1.2	34
47	The role of glacier changes and threshold definition in the characterisation of future streamflow droughts in glacierised catchments. Hydrology and Earth System Sciences, 2018, 22, 463-485.	1.9	33
48	Impact of precipitation and increasing temperatures on drought trends in eastern Africa. Earth System Dynamics, 2021, 12, 17-35.	2.7	32
49	Decadal predictability of river discharge with climate oscillations over the 20th and early 21st century. Geophysical Research Letters, 2015, 42, 10,689.	1.5	30
50	Lessons from the 2018â€“2019 European droughts: a collective need for unifying drought risk management. Natural Hazards and Earth System Sciences, 2022, 22, 2201-2217.	1.5	28
51	Forecasting the Hydroclimatic Signature of the 2015/16 El NiÃ±o Event on the Western United States. Journal of Hydrometeorology, 2017, 18, 177-186.	0.7	26
52	Global ecosystem service values in climate class transitions. Environmental Research Letters, 2020, 15, 024008.	2.2	25
53	Streamflow droughts aggravated by human activities despite management. Environmental Research Letters, 2022, 17, 044059.	2.2	24
54	Field-scale soil moisture bridges the spatial-scale gap between drought monitoring and agricultural yields. Hydrology and Earth System Sciences, 2021, 25, 1827-1847.	1.9	23

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55	The potential of data driven approaches for quantifying hydrological extremes. Advances in Water Resources, 2021, 155, 104017.	1.7	21
56	The Impact of Meteorological and Hydrological Memory on Compound Peak Flows in the Rhine River Basin. Atmosphere, 2019, 10, 171.	1.0	16
57	Projecting armed conflict risk in Africa towards 2050 along the SSP-RCP scenarios: a machine learning approach. Environmental Research Letters, 2021, 16, 124068.	2.2	14
58	FutureStreams, a global dataset of future streamflow and water temperature. Scientific Data, 2022, 9, .	2.4	14
59	Interpreting extreme climate impacts from large ensemble simulationsâ€”are they unseen or unrealistic?. Environmental Research Letters, 2022, 17, 044052.	2.2	13
60	An object-based image analysis approach to assess irrigation-water consumption from MODIS products in Ethiopia. International Journal of Applied Earth Observation and Geoinformation, 2020, 88, 102067.	1.4	11
61	Globally widespread and increasing violations of environmental flow envelopes. Hydrology and Earth System Sciences, 2022, 26, 3315-3336.	1.9	11
62	Hydrological impacts of ethanol-driven sugarcane expansion in Brazil. Journal of Environmental Management, 2021, 282, 111942.	3.8	10
63	Projecting long-term armed conflict risk: An underappreciated field of inquiry?. Global Environmental Change, 2022, 72, 102423.	3.6	8
64	Large-scale sensitivities of groundwater and surface water to groundwater withdrawal. Hydrology and Earth System Sciences, 2021, 25, 5859-5878.	1.9	5
65	Improved multiâ€model ensemble forecasts of Iran's precipitation and temperature using a hybrid dynamicalâ€statistical approach during fall and winter seasons. International Journal of Climatology, 2021, 41, 5698.	1.5	4
66	Validity of estimating flood and drought characteristics under equilibrium climates from transient simulations. Environmental Research Letters, 2021, 16, 104028.	2.2	4
67	Using large ensemble modelling to derive future changes in mountain specific climate indicators in a 2 and 3Â°C warmer world in High Mountain Asia. International Journal of Climatology, 2021, 41, E964.	1.5	3
68	Assessing Seasonal Climate Forecasts Over Africa to Support Decision-Making. World Scientific Series on Asia-Pacific Weather and Climate, 2018, , 1-15.	0.2	1
69	CoPro: a data-driven modelling framework for conflict risk projections. Journal of Open Source Software, 2021, 6, 2855.	2.0	1