Nathalie Voisin

List of Publications by Year
in descending order

66	4,012	172207 29	123241 61
papers	citations	h-index	g-index

92	92	92	4639
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Effects of Climate Change on the Hydrology and Water Resources of the Colorado River Basin. Climatic Change, 2004, 62, 337-363.	1.7	825
2	Implications of 21st century climate change for the hydrology of Washington State. Climatic Change, 2010, 102, 225-260.	1.7	379
3	Value of longâ€term streamflow forecasts to reservoir operations for water supply in snowâ€dominated river catchments. Water Resources Research, 2016, 52, 4209-4225.	1.7	159
4	A first large-scale flood inundation forecasting model. Water Resources Research, 2013, 49, 6248-6257.	1.7	150
5	The influence of large dams on surrounding climate and precipitation patterns. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	133
6	21st century United States emissions mitigation could increase water stress more than the climate change it is mitigating. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10635-10640.	3.3	128
7	Compound climate events transform electrical power shortfall risk in the Pacific Northwest. Nature Communications, 2019, 10, 8.	5.8	120
8	Investigating the nexus of climate, energy, water, and land at decision-relevant scales: the Platform for Regional Integrated Modeling and Analysis (PRIMA). Climatic Change, 2015, 129, 573-588.	1.7	119
9	The contribution of glacier melt to streamflow. Environmental Research Letters, 2012, 7, 034029.	2.2	116
10	On an improved sub-regional water resources management representation for integration into earth system models. Hydrology and Earth System Sciences, 2013, 17, 3605-3622.	1.9	109
11	Estuarine response to river flow and sea-level rise under future climate change and human development. Estuarine, Coastal and Shelf Science, 2015, 156, 19-30.	0.9	107
12	Climate change impacts on water management and irrigated agriculture in the Yakima River Basin, Washington, USA. Climatic Change, 2010, 102, 287-317.	1.7	104
13	Integrating a reservoir regulation scheme into a spatially distributed hydrological model. Advances in Water Resources, 2016, 98, 16-31.	1.7	94
14	Projected impacts of climate change on hydropower potential in China. Hydrology and Earth System Sciences, 2016, 20, 3343-3359.	1.9	86
15	Evaluating Global Streamflow Simulations by a Physically Based Routing Model Coupled with the Community Land Model. Journal of Hydrometeorology, 2015, 16, 948-971.	0.7	81
16	A spatially distributed model for the assessment of land use impacts on stream temperature in small urban watersheds. Hydrological Processes, 2015, 29, 2331-2345.	1.1	80
17	Evaluation of Precipitation Products for Global Hydrological Prediction. Journal of Hydrometeorology, 2008, 9, 388-407.	0.7	67
18	Vulnerability of the US western electric grid to hydro-climatological conditions: How bad can it get?. Energy, 2016, 115, 1-12.	4.5	65

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19	One-way coupling of an integrated assessment model and a water resources model: evaluation and implications of future changes over the US Midwest. Hydrology and Earth System Sciences, 2013, 17, 4555-4575.	1.9	61
20	Effects of mid-twenty-first century climate and land cover change on the hydrology of the Puget Sound basin, Washington. Hydrological Processes, 2011, 25, 1729-1753.	1.1	60
21	Calibration and Downscaling Methods for Quantitative Ensemble Precipitation Forecasts. Weather and Forecasting, 2010, 25, 1603-1627.	0.5	58
22	Application of a Medium-Range Global Hydrologic Probabilistic Forecast Scheme to the Ohio River Basin. Weather and Forecasting, 2011, 26, 425-446.	0.5	57
23	Climate change impacts on water management in the Puget Sound region, Washington State, USA. Climatic Change, 2010, 102, 261-286.	1.7	54
24	Multisector Dynamics: Advancing the Science of Complex Adaptive Humanâ€Earth Systems. Earth's Future, 2022, 10, .	2.4	47
25	Emergence of new hydrologic regimes of surface water resources in the conterminous United States under future warming. Environmental Research Letters, 2016, 11, 114003.	2.2	43
26	The Role of Climate Forecasts in Western U.S. Power Planning. Journal of Applied Meteorology and Climatology, 2006, 45, 653-673.	0.6	41
27	Impact of climate change on water availability and its propagation through the Western U.S. power grid. Applied Energy, 2020, 276, 115467.	5.1	38
28	A New Global Storageâ€Areaâ€Depth Data Set for Modeling Reservoirs in Land Surface and Earth System Models. Water Resources Research, 2018, 54, 10,372.	1.7	35
29	Inferred inflow forecast horizons guiding reservoir release decisions across the United States. Hydrology and Earth System Sciences, 2020, 24, 1275-1291.	1.9	33
30	Effects of spatially distributed sectoral water management on the redistribution of water resources in an integrated water model. Water Resources Research, 2017, 53, 4253-4270.	1.7	30
31	Effects of Climate Change on Capacity Expansion Decisions of an Electricity Generation Fleet in the Southeast U.S.. Environmental Science & Technology, 2021, 55, 2522-2531.	4.6	30
32	Modeling stream temperature in the <scp>A</scp>nthropocene: An earth system modeling approach. Journal of Advances in Modeling Earth Systems, 2015, 7, 1661-1679.	1.3	29
33	Opportunities for Joint Waterâ€“Energy Management: Sensitivity of the 2010 Western U.S. Electricity Grid Operations to Climate Oscillations. Bulletin of the American Meteorological Society, 2018, 99, 299-312.	1.7	29
34	Reservoirs Modify River Thermal Regime Sensitivity to Climate Change: A Case Study in the Southeastern United States. Water Resources Research, 2020, 56, e2019WR025784.	1.7	29
35	Dataâ€Driven Reservoir Simulation in a Largeâ€Scale Hydrological and Water Resource Model. Water Resources Research, 2020, 56, e2020WR027902.	1.7	28
36	Sensitivity of Western U.S. power system dynamics to droughts compounded with fuel price variability. Applied Energy, 2019, 247, 745-754.	5.1	25

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37	A modeling framework for evaluating the drought resilience of a surface water supply system under non-stationarity. Journal of Hydrology, 2018, 563, 22-32.	2.3	24
38	Value of medium range weather forecasts in the improvement of seasonal hydrologic prediction skill. Hydrology and Earth System Sciences, 2012, 16, 2825-2838.	1.9	23
39	Sensitivity of Regulated Flow Regimes to Climate Change in the Western United States. Journal of Hydrometeorology, 2018, 19, 499-515.	0.7	22
40	Non-stationary hydropower generation projections constrained by environmental and electricity grid operations over the western United States. Environmental Research Letters, 2018, 13, 074035.	2.2	21
41	Core process representation in power system operational models: Gaps, challenges, and opportunities for multisector dynamics research. Energy, 2022, 238, 122049.	4.5	20
42	ResOpsUS, a dataset of historical reservoir operations in the contiguous United States. Scientific Data, 2022, 9, 34.	2.4	18
43	Water storage and release policies for all large reservoirs of conterminous United States. Journal of Hydrology, 2021, 603, 126843.	2.3	17
44	Scalability of grid- and subbasin-based land surface modeling approaches for hydrologic simulations. Journal of Geophysical Research D: Atmospheres, 2014, 119, 3166-3184.	1.2	16
45	Simulated building energy demand biases resulting from the use of representative weather stations. Applied Energy, 2018, 209, 516-528.	5.1	16
46	Global Irrigation Characteristics and Effects Simulated by Fully Coupled Land Surface, River, and Water Management Models in E3SM. Journal of Advances in Modeling Earth Systems, 2020, 12, e2020MS002069.	1.3	16
47	Simulation of hydropower at subcontinental to global scales: a state-of-the-art review. Environmental Research Letters, 2022, 17, 023002.	2.2	16
48	Improving consistency among models of overlapping scope in multi-sector studies: The case of electricity capacity expansion scenarios. Renewable and Sustainable Energy Reviews, 2019, 116, 109416.	8.2	12
49	A Multilayer Reservoir Thermal Stratification Module for Earth System Models. Journal of Advances in Modeling Earth Systems, 2019, 11, 3265-3283.	1.3	12
50	Sensitivity of future U.S. Water shortages to socioeconomic and climate drivers: a case study in Georgia using an integrated human-earth system modeling framework. Climatic Change, 2016, 136, 233-246.	1.7	11
51	Planning for sustained water-electricity resilience over the U.S.: Persistence of current water-electricity operations and long-term transformative plans. Water Security, 2019, 7, 100035.	1.2	10
52	A multi-scale calibration approach for process-oriented aggregated building energy demand models. Energy and Buildings, 2019, 191, 82-94.	3.1	10
53	The Effects of Climate Change on Interregional Electricity Market Dynamics on the U.S. West Coast. Earth's Future, 2021, 9, .	2.4	10
54	A Typology for Characterizing Human Action in MultiSector Dynamics Models. Earth's Future, 2022, 10, .	2.4	9

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55	Future western U.S. building electricity consumption in response to climate and population drivers: A comparative study of the impact of model structure. Energy, 2020, 208, 118312.	4.5	8
56	Technology Pathways Could Help Drive the U.S. West Coast Grid's Exposure to Hydrometeorological Uncertainty. Earth's Future, 2022, 10, .	2.4	7
57	A multi-model framework for assessing long- and short-term climate influences on the electric grid. Applied Energy, 2022, 317, 119193.	5.1	7
58	Thermal extremes in regulated river systems under climate change: an application to the southeastern U.S. rivers. Environmental Research Letters, 2020, 15, 094012.	2.2	5
59	Climate-Induced Tradeoffs in Planning and Operating Costs of a Regional Electricity System. Environmental Science & Technology, 2021, 55, 11204-11215.	4.6	5
60	A multi-reservoir model for projecting drought impacts on thermoelectric disruption risk across the Texas power grid. Energy, 2021, 231, 120892.	4.5	5
61	The Role of Regional Connections in Planning for Future Power System Operations Under Climate Extremes. Earth's Future, 2022, 10, .	2.4	5
62	How structural differences influence cross-model consistency: An electric sector case study. Renewable and Sustainable Energy Reviews, 2021, 144, 111009.	8.2	3
63	CERF â€“ A Geospatial Model for Assessing Future Energy Production Technology Expansion Feasibility. Journal of Open Research Software, 2018, 6, 20.	2.7	3
64	mosartwmpy: A Python implementation of the MOSART-WM coupled hydrologic routing and water management model. Journal of Open Source Software, 2021, 6, 3221.	2.0	2
65	cerf: A Python package to evaluate the feasibility and costs of power plant siting for alternative futures. Journal of Open Source Software, 2021, 6, 3601.	2.0	1
66	Application of a medium range global hydrologic probabilistic forecast scheme to the Ohio River Basin. Weather and Forecasting, 0, , 110324113650092.	0.5	1