

# Jonathan L Goodall

## List of Publications by Year in descending order

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Version: 2024-02-01

87  
papers

2,648  
citations

201385

27  
h-index

197535

49  
g-index

92  
all docs

92  
docs citations

92  
times ranked

3465  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantification of Compound Flooding over Roadway Network during Extreme Events for Planning Emergency Operations. <i>Natural Hazards Review</i> , 2022, 23, .	0.8	6
2	Reinforcement learning-based real-time control of coastal urban stormwater systems to mitigate flooding and improve water quality. <i>Environmental Science: Water Research and Technology</i> , 2022, 8, 2065-2086.	1.2	8
3	Flood resilience through crowdsourced rainfall data collection: Growing engagement faces non-uniform spatial adoption. <i>Journal of Hydrology</i> , 2022, 609, 127724.	2.3	4
4	Predicting combined tidal and pluvial flood inundation using a machine learning surrogate model. <i>Journal of Hydrology: Regional Studies</i> , 2022, 41, 101087.	1.0	7
5	Dynamic Modeling of Inland Flooding and Storm Surge on Coastal Cities under Climate Change Scenarios: Transportation Infrastructure Impacts in Norfolk, Virginia USA as a Case Study. <i>Geosciences (Switzerland)</i> , 2022, 12, 224.	1.0	4
6	Flood mitigation in coastal urban catchments using real-time stormwater infrastructure control and reinforcement learning. <i>Journal of Hydroinformatics</i> , 2021, 23, 529-547.	1.1	26
7	Toward open and reproducible environmental modeling by integrating online data repositories, computational environments, and model Application Programming Interfaces. <i>Environmental Modelling and Software</i> , 2021, 135, 104888.	1.9	24
8	Estimating impacts of recurring flooding on roadway networks: a Norfolk, Virginia case study. <i>Natural Hazards</i> , 2021, 107, 2363-2387.	1.6	17
9	Enhancing Efficacy of Water Quality Trading with Automation: A Case Study in Virginia's Nutrient Trading Program. <i>Journal of the American Water Resources Association</i> , 2021, 57, 374-390.	1.0	7
10	Impact of Geospatial Data Enhancements for Regional-Scale 2D Hydrodynamic Flood Modeling: Case Study for the Coastal Plain of Virginia. <i>Journal of Hydrologic Engineering - ASCE</i> , 2021, 26, .	0.8	6
11	A Graduate Curriculum in Cyber-Physical Systems. <i>IEEE Design and Test</i> , 2021, 38, 112-120.	1.1	0
12	Exploring the complementary relationship between solar and hydro energy harvesting for self-powered water monitoring in low-light conditions. <i>Environmental Modelling and Software</i> , 2021, 140, 105032.	1.9	4
13	Reinforcement Learning for Flooding Mitigation in Complex Stormwater Systems during Large Storms. , 2021, , .		1
14	Assessing Trustworthiness of Crowdsourced Flood Incident Reports Using Waze Data: A Norfolk, Virginia Case Study. <i>Transportation Research Record</i> , 2021, 2675, 650-662.	1.0	7
15	Nonpoint Source Water Quality Trading outcomes: Landscape-scale patterns and integration with watershed management priorities. <i>Journal of Environmental Management</i> , 2021, 294, 112914.	3.8	12
16	Opportunities for crowdsourcing in urban flood monitoring. <i>Environmental Modelling and Software</i> , 2021, 143, 105124.	1.9	21
17	Anticipating and Adapting to the Future Impacts of Climate Change on the Health, Security and Welfare of Low Elevation Coastal Zone (LECZ) Communities in Southeastern USA. <i>Journal of Marine Science and Engineering</i> , 2021, 9, 1196.	1.2	6
18	Assessing the Trustworthiness of Crowdsourced Rainfall Networks: A Reputation System Approach. <i>Water Resources Research</i> , 2021, 57, e2021WR029721.	1.7	8

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19	Estimating Potential Climate Change Effects on the Upper Neuse Watershed Water Balance Using the SWAT Model. <i>Journal of the American Water Resources Association</i> , 2020, 56, 53-67.	1.0	17
20	Training Machine Learning Surrogate Models From a High-Fidelity Physics-Based Model: Application for Real-Time Street-Scale Flood Prediction in an Urban Coastal Community. <i>Water Resources Research</i> , 2020, 56, e2019WR027038.	1.7	58
21	Deep Reinforcement Learning with Uncertain Data for Real-Time Stormwater System Control and Flood Mitigation. <i>Water (Switzerland)</i> , 2020, 12, 3222.	1.2	22
22	Flood Monitoring and Mitigation Strategies for Flood-Prone Urban Areas. , 2020, , .		2
23	A taxonomy for reproducible and replicable research in environmental modelling. <i>Environmental Modelling and Software</i> , 2020, 134, 104753.	1.9	19
24	Position paper: Open web-distributed integrated geographic modelling and simulation to enable broader participation and applications. <i>Earth-Science Reviews</i> , 2020, 207, 103223.	4.0	87
25	Exploring real-time control of stormwater systems for mitigating flood risk due to sea level rise. <i>Journal of Hydrology</i> , 2020, 583, 124571.	2.3	30
26	Deep learning Using Physically-Informed Input Data for Wetland Identification. <i>Environmental Modelling and Software</i> , 2020, 126, 104665.	1.9	24
27	Quantifying background nitrate removal mechanisms in an agricultural watershed with contrasting subcatchment baseflow concentrations. <i>Journal of Environmental Quality</i> , 2020, 49, 392-403.	1.0	1
28	Documenting Computing Environments for Reproducible Experiments. <i>Advances in Parallel Computing</i> , 2020, , .	0.3	4
29	Reproducible Hydrological Modeling with CyberGIS-Jupyter. , 2019, , .		5
30	Using Random Forest Classification and Nationally Available Geospatial Data to Screen for Wetlands over Large Geographic Regions. <i>Water (Switzerland)</i> , 2019, 11, 1158.	1.2	12
31	Smart Cities Solutions for More Flood Resilient Communities. , 2019, , .		8
32	Leveraging open source software and parallel computing for model predictive control of urban drainage systems using EPA-SWMM5. <i>Environmental Modelling and Software</i> , 2019, 120, 104484.	1.9	42
33	Flood risk assessment and increased resilience for coastal urban watersheds under the combined impact of storm tide and heavy rainfall. <i>Journal of Hydrology</i> , 2019, 579, 124159.	2.3	90
34	Precipitation Extremes and Flood Frequency in a Changing Climate in Southeastern Virginia. <i>Journal of the American Water Resources Association</i> , 2019, 55, 780-799.	1.0	18
35	Forecasting Groundwater Table in a Flood Prone Coastal City with Long Short-term Memory and Recurrent Neural Networks. <i>Water (Switzerland)</i> , 2019, 11, 1098.	1.2	87
36	Effects of LiDAR DEM Smoothing and Conditioning Techniques on a Topography-Based Wetland Identification Model. <i>Water Resources Research</i> , 2019, 55, 4343-4363.	1.7	20

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37	MobiAmbulance: Optimal Scheduling of Emergency Vehicles in Catastrophic Situations. , 2019, , .		3
38	Modeling urban coastal flood severity from crowd-sourced flood reports using Poisson regression and Random Forest. Journal of Hydrology, 2018, 559, 43-55.	2.3	105
39	Evaluating the potential for site-specific modification of LiDAR DEM derivatives to improve environmental planning-scale wetland identification using Random Forest classification. Journal of Hydrology, 2018, 559, 192-208.	2.3	29
40	Trust me, my neighbors say it's raining outside. , 2018, , .		9
41	Using Geospatial Analysis and Hydrologic Modeling to Estimate Climate Change Impacts on Nitrogen Export: Case Study for a Forest and Pasture Dominated Watershed in North Carolina. ISPRS International Journal of Geo-Information, 2018, 7, 280.	1.4	3
42	A cloud-based flood warning system for forecasting impacts to transportation infrastructure systems. Environmental Modelling and Software, 2018, 107, 231-244.	1.9	37
43	Feasibility of using existing web services for on-demand data access within distributed environmental decision support systems. Journal of Hydroinformatics, 2018, 20, 263-280.	1.1	0
44	Integrating scientific cyberinfrastructures to improve reproducibility in computational hydrology: Example for HydroShare and GeoTrust. Environmental Modelling and Software, 2018, 105, 217-229.	1.9	27
45	Comparing Costs of Onsite Best Management Practices to Nutrient Credits for Stormwater Management: A Case Study in Virginia. Journal of the American Water Resources Association, 2017, 53, 131-143.	1.0	13
46	Design of a metadata framework for environmental models with an example hydrologic application in HydroShare. Environmental Modelling and Software, 2017, 93, 13-28.	1.9	40
47	Evaluation of the OntoSoft Ontology for describing metadata for legacy hydrologic modeling software. Environmental Modelling and Software, 2017, 92, 317-329.	1.9	7
48	Effect of Rain Gauge Proximity on Rainfall Estimation for Problematic Urban Coastal Watersheds in Virginia Beach, Virginia. Journal of Hydrologic Engineering - ASCE, 2017, 22, .	0.8	5
49	Impact of Sea-Level Rise on Roadway Flooding in the Hampton Roads Region, Virginia. Journal of Infrastructure Systems, 2017, 23, .	1.0	28
50	The Impact of Projected Climate Change Scenarios on Nitrogen Yield at a Regional Scale for the Contiguous United States. Journal of the American Water Resources Association, 2017, 53, 854-870.	1.0	11
51	Method for Rapidly Assessing the Overtopping Risk of Bridges Due to Flooding over a Large Geographic Region. Journal of the American Water Resources Association, 2017, 53, 1437-1452.	1.0	4
52	Design and implementation of a general software library for using NSGA-II with SWAT for multi-objective model calibration. Environmental Modelling and Software, 2016, 84, 112-120.	1.9	44
53	Toward the Geoscience Paper of the Future: Best practices for documenting and sharing research from data to software to provenance. Earth and Space Science, 2016, 3, 388-415.	1.1	127
54	Distributed Stormwater Controls for Flood Mitigation within Urbanized Watersheds: Case Study of Rocky Branch Watershed in Columbia, South Carolina. Journal of Hydrologic Engineering - ASCE, 2016, 21, .	0.8	28

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55	Server-side workflow execution using data grid technology for reproducible analyses of data-intensive hydrologic systems. <i>Earth and Space Science</i> , 2016, 3, 163-175.	1.1	10
56	HydroShare: Sharing Diverse Environmental Data Types and Models as Social Objects with Application to the Hydrology Domain. <i>Journal of the American Water Resources Association</i> , 2016, 52, 873-889.	1.0	73
57	Using a data grid to automate data preparation pipelines required for regional-scale hydrologic modeling. <i>Environmental Modelling and Software</i> , 2016, 78, 31-39.	1.9	20
58	WDCloud: An end to end system for large-scale watershed delineation on cloud. , 2015, , .		1
59	A methodology for evaluating evapotranspiration estimates at the watershed-scale using GRACE. <i>Journal of Hydrology</i> , 2015, 523, 574-586.	2.3	56
60	Using a Service-Oriented Approach to Simulate Integrated Urban Infrastructure Systems. <i>Journal of Computing in Civil Engineering</i> , 2015, 29, .	2.5	6
61	A hierarchical network-based algorithm for multi-scale watershed delineation. <i>Computers and Geosciences</i> , 2014, 72, 156-166.	2.0	9
62	Calibration of SWAT models using the cloud. <i>Environmental Modelling and Software</i> , 2014, 62, 188-196.	1.9	29
63	Coupling climate and hydrological models: Interoperability through Web Services. <i>Environmental Modelling and Software</i> , 2013, 46, 250-259.	1.9	38
64	Driving plug-and-play models with data from web services: A demonstration of interoperability between CSDMS and CUAHSI-HIS. <i>Computers and Geosciences</i> , 2013, 53, 154-161.	2.0	38
65	Models as web services using the Open Geospatial Consortium (OGC) Web Processing Service (WPS) standard. <i>Environmental Modelling and Software</i> , 2013, 41, 72-83.	1.9	113
66	Simulating watersheds using loosely integrated model components: Evaluation of computational scaling using OpenMI. <i>Environmental Modelling and Software</i> , 2013, 39, 304-313.	1.9	18
67	Integrated modeling within a Hydrologic Information System: An OpenMI based approach. <i>Environmental Modelling and Software</i> , 2013, 39, 263-273.	1.9	58
68	Integrated environmental modeling: A vision and roadmap for the future. <i>Environmental Modelling and Software</i> , 2013, 39, 3-23.	1.9	366
69	Estimating Watershed-Scale Precipitation by Combining Gauge- and Radar-Derived Observations. <i>Journal of Hydrologic Engineering - ASCE</i> , 2013, 18, 983-994.	0.8	11
70	An ontology for component-based models of water resource systems. <i>Water Resources Research</i> , 2013, 49, 5077-5091.	1.7	16
71	Calibration of watershed models using cloud computing. , 2012, , .		14
72	Toward disentangling the effect of hydrologic and nitrogen source changes from 1992 to 2001 on incremental nitrogen yield in the contiguous United States. <i>Water Resources Research</i> , 2012, 48, .	1.7	9

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73	Feedback loops and temporal misalignment in component-based hydrologic modeling. <i>Water Resources Research</i> , 2011, 47, .	1.7	13
74	Annual and interannual variations in terrestrial water storage during and following a period of drought in South Carolina, USA. <i>Journal of Hydrology</i> , 2011, 409, 472-482.	2.3	8
75	Modeling water resource systems using a service-oriented computing paradigm. <i>Environmental Modelling and Software</i> , 2011, 26, 573-582.	1.9	105
76	A generic approach for developing process-level hydrologic modeling components. <i>Environmental Modelling and Software</i> , 2010, 25, 819-825.	1.9	38
77	A software library for quantifying regional-scale nitrogen transport within river basin systems. <i>Environmental Modelling and Software</i> , 2010, 25, 1713-1721.	1.9	3
78	Comparison of Flood Top Width Predictions Using Surveyed and LiDAR-Derived Channel Geometries. <i>Journal of Hydrologic Engineering - ASCE</i> , 2010, 15, 97-106.	0.8	9
79	A spatiotemporal data model for river basin-scale hydrologic systems. <i>International Journal of Geographical Information Science</i> , 2009, 23, 233-247.	2.2	10
80	Standardizing Access to Hydrologic Data Repositories through Web Services. , 2009, , .		4
81	A first approach to web services for the National Water Information System. <i>Environmental Modelling and Software</i> , 2008, 23, 404-411.	1.9	109
82	Applications of network analysis for adaptive management of artificial drainage systems in landscapes vulnerable to sea level rise. <i>Journal of Hydrology</i> , 2008, 357, 207-217.	2.3	62
83	New Software Architecture for Integrated Water Modeling: CUAHSI/OpenMI Workshop for Integrating Water Models; Wallingford, United Kingdom, 7-10 April 2008. <i>Eos</i> , 2008, 89, 420-420.	0.1	0
84	Integrating Arc Hydro Features with a Schematic Network. <i>Transactions in GIS</i> , 2006, 10, 219-237.	1.0	20
85	Multi-decadal synthesis of benthic-pelagic coupling in the western arctic: Role of cross-shelf advective processes. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2005, 52, 3462-3477.	0.6	132
86	Sensitivity of Remotely Sensed Vegetation to Hydrologic Predictors across the Colorado River Basin, 2001-2019. <i>Journal of the American Water Resources Association</i> , 0, , .	1.0	1
87	An Open-Source Python Library for Varying Model Parameters and Automating Concurrent Simulations of the National Water Model. <i>Journal of the American Water Resources Association</i> , 0, , .	1.0	1