

Brett F Sanders

List of Publications by Year in descending order

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104
papers

6,777
citations

57758

44
h-index

62596

80
g-index

105
all docs

105
docs citations

105
times ranked

5836
citing authors

#	ARTICLE	IF	CITATIONS
1	Taking the "Waste" Out of "Wastewater" for Human Water Security and Ecosystem Sustainability. <i>Science</i> , 2012, 337, 681-686.	12.6	513
2	Evaluation of on-line DEMs for flood inundation modeling. <i>Advances in Water Resources</i> , 2007, 30, 1831-1843.	3.8	314
3	Compounding effects of sea level rise and fluvial flooding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 9785-9790.	7.1	294
4	Finite-Volume Model for Shallow-Water Flooding of Arbitrary Topography. <i>Journal of Hydraulic Engineering</i> , 2002, 128, 289-298.	1.5	274
5	Building treatments for urban flood inundation models and implications for predictive skill and modeling efficiency. <i>Advances in Water Resources</i> , 2012, 41, 49-64.	3.8	213
6	Two-dimensional, high-resolution modeling of urban dam-break flooding: A case study of Baldwin Hills, California. <i>Advances in Water Resources</i> , 2009, 32, 1323-1335.	3.8	194
7	Unstructured Grid Finite-Volume Algorithm for Shallow-Water Flow and Scalar Transport with Wetting and Drying. <i>Journal of Hydraulic Engineering</i> , 2006, 132, 371-384.	1.5	182
8	Unstructured mesh generation and landcover-based resistance for hydrodynamic modeling of urban flooding. <i>Advances in Water Resources</i> , 2008, 31, 1603-1621.	3.8	178
9	Earthen Embankment Breaching. <i>Journal of Hydraulic Engineering</i> , 2011, 137, 1549-1564.	1.5	170
10	Cumulative hazard: The case of nuisance flooding. <i>Earth's Future</i> , 2017, 5, 214-223.	6.3	168
11	Generation of Enterococci Bacteria in a Coastal Saltwater Marsh and Its Impact on Surf Zone Water Quality. <i>Environmental Science & Technology</i> , 2001, 35, 2407-2416.	10.0	166
12	An intercomparison of remote sensing river discharge estimation algorithms from measurements of river height, width, and slope. <i>Water Resources Research</i> , 2016, 52, 4527-4549.	4.2	163
13	Integral formulation of shallow-water equations with anisotropic porosity for urban flood modeling. <i>Journal of Hydrology</i> , 2008, 362, 19-38.	5.4	158
14	Environmental Fate and Transport Modeling for Perfluorooctanoic Acid Emitted from the Washington Works Facility in West Virginia. <i>Environmental Science & Technology</i> , 2011, 45, 1435-1442.	10.0	154
15	Scaling and Management of Fecal Indicator Bacteria in Runoff from a Coastal Urban Watershed in Southern California. <i>Environmental Science & Technology</i> , 2004, 38, 2637-2648.	10.0	149
16	Increased nuisance flooding along the coasts of the United States due to sea level rise: Past and future. <i>Geophysical Research Letters</i> , 2015, 42, 9846-9852.	4.0	144
17	Multihazard Scenarios for Analysis of Compound Extreme Events. <i>Geophysical Research Letters</i> , 2018, 45, 5470-5480.	4.0	139
18	ParBreZo: A parallel, unstructured grid, Godunov-type, shallow-water code for high-resolution flood inundation modeling at the regional scale. <i>Advances in Water Resources</i> , 2010, 33, 1456-1467.	3.8	129

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19	From Rain Tanks to Catchments: Use of Low-Impact Development To Address Hydrologic Symptoms of the Urban Stream Syndrome. <i>Environmental Science & Technology</i> , 2015, 49, 11264-11280.	10.0	129
20	What Is Nuisance Flooding? Defining and Monitoring an Emerging Challenge. <i>Water Resources Research</i> , 2018, 54, 4218-4227.	4.2	123
21	Urban coastal flood prediction: Integrating wave overtopping, flood defenses and drainage. <i>Coastal Engineering</i> , 2014, 91, 18-28.	4.0	112
22	Linking statistical and hydrodynamic modeling for compound flood hazard assessment in tidal channels and estuaries. <i>Advances in Water Resources</i> , 2019, 128, 28-38.	3.8	107
23	Predicting tidal flooding of urbanized embayments: A modeling framework and data requirements. <i>Coastal Engineering</i> , 2011, 58, 567-577.	4.0	106
24	Simulation of the St. Francis Dam-Break Flood. <i>Journal of Engineering Mechanics - ASCE</i> , 2007, 133, 1200-1212.	2.9	99
25	Predicting nonstationary flood frequencies: Evidence supports an updated stationarity thesis in the United States. <i>Water Resources Research</i> , 2017, 53, 5469-5494.	4.2	99
26	A high resolution coupled hydrologic-hydraulic model (HiResFlood-UCI) for flash flood modeling. <i>Journal of Hydrology</i> , 2016, 541, 401-420.	5.4	98
27	Adaptive Godunov-Based Model for Flood Simulation. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 714-725.	1.5	95
28	Integration of a shallow water model with a local time step. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2008, 46, 466-475.	1.7	85
29	Urban flood modeling with porous shallow-water equations: A case study of model errors in the presence of anisotropic porosity. <i>Journal of Hydrology</i> , 2015, 523, 680-692.	5.4	83
30	A framework for the case-specific assessment of Green Infrastructure in mitigating urban flood hazards. <i>Advances in Water Resources</i> , 2017, 108, 55-68.	3.8	82
31	High-resolution and non-oscillatory solution of the St. Venant equations in non-rectangular and non-prismatic channels. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2001, 39, 321-330.	1.7	80
32	Mesh type tradeoffs in 2D hydrodynamic modeling of flooding with a Godunov-based flow solver. <i>Advances in Water Resources</i> , 2014, 68, 42-61.	3.8	78
33	Modeling the dry-weather tidal cycling of fecal indicator bacteria in surface waters of an intertidal wetland. <i>Water Research</i> , 2005, 39, 3394-3408.	11.3	72
34	PRIMO: Parallel raster inundation model. <i>Advances in Water Resources</i> , 2019, 126, 79-95.	3.8	72
35	Communicating flood risk: Looking back and forward at traditional and social media outlets. <i>International Journal of Disaster Risk Reduction</i> , 2016, 15, 43-51.	3.9	70
36	Cross-Shelf Transport at Huntington Beach. Implications for the Fate of Sewage Discharged through an Offshore Ocean Outfall. <i>Environmental Science & Technology</i> , 2002, 36, 1899-1906.	10.0	67

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37	Australia's Drought: Lessons for California. <i>Science</i> , 2014, 343, 1430-1431.	12.6	67
38	Conservative Wetting and Drying Methodology for Quadrilateral Grid Finite-Volume Models. <i>Journal of Hydraulic Engineering</i> , 2007, 133, 312-322.	1.5	66
39	Locating Sources of Surf Zone Pollution: A Mass Budget Analysis of Fecal Indicator Bacteria at Huntington Beach, California. <i>Environmental Science & Technology</i> , 2004, 38, 2626-2636.	10.0	60
40	Dual integral porosity shallow water model for urban flood modelling. <i>Advances in Water Resources</i> , 2017, 103, 16-31.	3.8	60
41	Going beyond the flood insurance rate map: insights from flood hazard map co-production. <i>Natural Hazards and Earth System Sciences</i> , 2018, 18, 1097-1120.	3.6	60
42	Adjoint Sensitivity Analysis for Shallow-Water Wave Control. <i>Journal of Engineering Mechanics - ASCE</i> , 2000, 126, 909-919.	2.9	55
43	Collaborative Modeling With Fine-Resolution Data Enhances Flood Awareness, Minimizes Differences in Flood Perception, and Produces Actionable Flood Maps. <i>Earth's Future</i> , 2020, 8, e2019EF001391.	6.3	53
44	Dispersion Model for Tidal Wetlands. <i>Journal of Hydraulic Engineering</i> , 2004, 130, 739-754.	1.5	49
45	Control of Canal Flow by Adjoint Sensitivity Method. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , 1999, 125, 287-297.	1.0	46
46	Engineered Levee Breaches for Flood Mitigation. <i>Journal of Hydraulic Engineering</i> , 2001, 127, 471-479.	1.5	39
47	Network Implementation of the Two-Component Pressure Approach for Transient Flow in Storm Sewers. <i>Journal of Hydraulic Engineering</i> , 2011, 137, 158-172.	1.5	38
48	Non-reflecting boundary flux function for finite volume shallow-water models. <i>Advances in Water Resources</i> , 2002, 25, 195-202.	3.8	37
49	A balanced treatment of secondary currents, turbulence and dispersion in a depth-integrated hydrodynamic and bed deformation model for channel bends. <i>Advances in Water Resources</i> , 2010, 33, 17-33.	3.8	36
50	Testing the impact of at-source stormwater management on urban flooding through a coupling of network and overland flow models. <i>Wiley Interdisciplinary Reviews: Water</i> , 2015, 2, 291-300.	6.5	34
51	Tidal asymmetry and residual sediment transport in a short tidal basin under sea level rise. <i>Advances in Water Resources</i> , 2018, 121, 1-8.	3.8	33
52	Dam-Break Flood Model Uncertainty Assessment: Case Study of Extreme Flooding with Multiple Dam Failures in Gangneung, South Korea. <i>Journal of Hydraulic Engineering</i> , 2016, 142, .	1.5	31
53	Case Study: Modeling Tidal Transport of Urban Runoff in Channels Using the Finite-Volume Method. <i>Journal of Hydraulic Engineering</i> , 2001, 127, 795-804.	1.5	30
54	Projecting nuisance flooding in a warming climate using generalized linear models and Gaussian processes. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 8008-8020.	2.6	29

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55	Performance of High-Resolution, Nonlevel Bed, Shallow-Water Models. <i>Journal of Engineering Mechanics - ASCE</i> , 2005, 131, 1073-1081.	2.9	28
56	Spectral Modeling of Nonlinear Dispersive Waves. <i>Journal of Hydraulic Engineering</i> , 1998, 124, 2-12.	1.5	27
57	The Influence of Hazard Maps and Trust of Flood Controls on Coastal Flood Spatial Awareness and Risk Perception. <i>Environment and Behavior</i> , 2019, 51, 347-375.	4.7	27
58	Structural Damage Prediction in a High-Velocity Urban Dam-Break Flood: Field-Scale Assessment of Predictive Skill. <i>Journal of Engineering Mechanics - ASCE</i> , 2012, 138, 1249-1262.	2.9	25
59	Discretization of Integral Equations Describing Flow in Nonprismatic Channels with Uneven Beds. <i>Journal of Hydraulic Engineering</i> , 2003, 129, 235-244.	1.5	22
60	Performance of Parallel Implementations of an Explicit Finite-Volume Shallow-Water Model. <i>Journal of Computing in Civil Engineering</i> , 2006, 20, 99-110.	4.7	22
61	Impact of Limiters on Accuracy of High-Resolution Flow and Transport Models. <i>Journal of Engineering Mechanics - ASCE</i> , 2006, 132, 87-98.	2.9	22
62	Integrating resident digital sketch maps with expert knowledge to assess spatial knowledge of flood risk: A case study of participatory mapping in Newport Beach, California. <i>Applied Geography</i> , 2016, 74, 56-64.	3.7	22
63	Breaking Down the Computational Barriers to Real-Time Urban Flood Forecasting. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093585.	4.0	21
64	Hydraulic modeling of the 2011 New Madrid Floodway activation: a case study on floodway activation controls. <i>Natural Hazards</i> , 2015, 77, 1863-1887.	3.4	20
65	Barriers and opportunities for beneficial reuse of sediment to support coastal resilience. <i>Ocean and Coastal Management</i> , 2020, 195, 105287.	4.4	20
66	Beach Boundary Layer: A Framework for Addressing Recreational Water Quality Impairment at Enclosed Beaches. <i>Environmental Science & Technology</i> , 2010, 44, 8804-8813.	10.0	19
67	Re-envisioning stormwater infrastructure for ultrahazardous flooding. <i>Wiley Interdisciplinary Reviews: Water</i> , 2020, 7, e1414.	6.5	19
68	Finite-Volume Models for Unidirectional, Nonlinear, Dispersive Waves. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2002, 128, 173-182.	1.2	17
69	A robust finite volume model to simulate granular flows. <i>Computers and Geotechnics</i> , 2015, 66, 96-112.	4.7	17
70	Active Flood Hazard Mitigation.€fI: Bidirectional Wave Control. <i>Journal of Hydraulic Engineering</i> , 1999, 125, 1057-1070.	1.5	16
71	A Parcel-Scale Coastal Flood Forecasting Prototype for a Southern California Urbanized Embayment. <i>Journal of Coastal Research</i> , 2012, 29, 642.	0.3	16
72	Small Drains, Big Problems: The Impact of Dry Weather Runoff on Shoreline Water Quality at Enclosed Beaches. <i>Environmental Science & Technology</i> , 2014, 48, 14168-14177.	10.0	15

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73	Passive and active control of diversions to an off-line reservoir for flood stage reduction. <i>Advances in Water Resources</i> , 2006, 29, 861-871.	3.8	14
74	The LHLLC scheme for Two-Layer and Two-Phase transcritical flows over a mobile bed with avalanching, wetting and drying. <i>Advances in Water Resources</i> , 2014, 67, 16-31.	3.8	14
75	Calibration of stormwater management model using flood extent data. <i>Water Management</i> , 2014, 167, 17-29.	1.2	13
76	Terrestrial Laser Scanning of Anthropogenic Beach Berm Erosion and Overtopping. <i>Journal of Coastal Research</i> , 2015, 31, 47.	0.3	13
77	The Information Content of High-Frequency Environmental Monitoring Data Signals Pollution Events in the Coastal Ocean. <i>Environmental Science & Technology</i> , 2006, 40, 6215-6220.	10.0	12
78	Translating Uncertain Sea Level Projections Into Infrastructure Impacts Using a Bayesian Framework. <i>Geophysical Research Letters</i> , 2017, 44, 11,914.	4.0	12
79	Active Flood Hazard Mitigation.â€Œll: Omnidirectional Wave Control. <i>Journal of Hydraulic Engineering</i> , 1999, 125, 1071-1083.	1.5	11
80	Mitigation of Salinity Intrusion in Well-mixed Estuaries by Optimization of Freshwater Diversion Rates. <i>Journal of Hydraulic Engineering</i> , 2002, 128, 64-77.	1.5	11
81	Treatment of Dry Weather Urban Runoff in Tidal Saltwater Marshes: A Longitudinal Study of the Talbert Marsh in Southern California. <i>Environmental Science & Technology</i> , 2008, 42, 3609-3614.	10.0	11
82	Subcritical Contraction for Improved Open-Channel Flow Measurement Accuracy with an Upward-Looking ADV. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , 2010, 136, 617-626.	1.0	11
83	Optimization of Multiple Freshwater Diversions in Well-Mixed Estuaries. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2002, 128, 74-84.	2.6	9
84	Addressing Pluvial Flash Flooding through Community-Based Collaborative Research in Tijuana, Mexico. <i>Water (Switzerland)</i> , 2020, 12, 1257.	2.7	9
85	Longitudinal interpolation of parameters characterizing channel geometry by piece-wise polynomial and universal kriging methods: effect on flow modeling. <i>Advances in Water Resources</i> , 2004, 27, 1061-1073.	3.8	8
86	Metric-Resolution 2D River Modeling at the Macroscale: Computational Methods and Applications in a Braided River. <i>Frontiers in Earth Science</i> , 2015, 3, .	1.8	8
87	Stochastic Hydroâ€Œnancial Watershed Modeling for Environmental Impact Bonds. <i>Water Resources Research</i> , 2020, 56, e2020WR027328.	4.2	8
88	Predicting distribution of malaria vector larval habitats in Ethiopia by integrating distributed hydrologic modeling with remotely sensed data. <i>Scientific Reports</i> , 2021, 11, 10150.	3.3	6
89	Compound Postâ€Œre Flood Hazards Considering Infrastructure Sedimentation. <i>Earth's Future</i> , 2022, 10, .	6.3	6
90	Short-Wave Behavior of Long-Wave Equations. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 1998, 124, 238-247.	1.2	5

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91	Multi-decadal simulation of estuarine sedimentation under sea level rise with a response-surface surrogate model. <i>Advances in Water Resources</i> , 2021, 150, 103876.	3.8	5
92	Finite Volume Schemes for the Boussinesq Equations. , 2002, , 953.		4
93	High-resolution, monotone solution of the adjoint shallow-water equations. <i>International Journal for Numerical Methods in Fluids</i> , 2002, 38, 139-161.	1.6	3
94	Modeling Circulation and Mixing in Tidal Wetlands of the Santa Ana River. , 2004, , 751.		3
95	Rapid assessment of abrupt urban mega-gully and landslide events with structure-from-motion photogrammetric techniques validates link to water resources infrastructure failures in an urban periphery. <i>Natural Hazards and Earth System Sciences</i> , 2022, 22, 523-538.	3.6	3
96	Modeling Flows with Moving Boundaries due to Flooding, Recession, and Wave Run-Up. , 2002, , 695.		2
97	Random-Walk Suspended Sediment Transport and Settling Model. , 2004, , 713.		2
98	Sea Level Rise Impact Assessment and Mitigation Alternatives Development for Balboa Island and Little Balboa Island, City of Newport Beach, California. , 2011, , .		2
99	Velocity Contour Weighting Method. I: Algorithm Development and Laboratory Testing. <i>Journal of Hydraulic Engineering</i> , 2011, 137, 1359-1367.	1.5	2
100	Enabling incremental adaptation in disadvantaged communities: polycentric governance with a focus on non-financial capital. <i>Climate Policy</i> , 2021, 21, 396-405.	5.1	2
101	Data Requirements for Load Estimation in Well-Mixed Tidal Channels. <i>Journal of Environmental Engineering, ASCE</i> , 2003, 129, 765-773.	1.4	0
102	Early Results and Historical Data from NEOCO (Network for Environmental Observations of the) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30		
103	Velocity Contour Weighting Method. II: Evaluation in Trapezoidal Channels and Roughness Sensitivity. <i>Journal of Hydraulic Engineering</i> , 2011, 137, 1368-1374.	1.5	0
104	SEA LEVEL RISE IMPACT ASSESSMENT AND MITIGATION ALTERNATIVES DEVELOPMENT FOR BALBOA ISLANDS, CITY OF NEWPORT BEACH, CALIFORNIA. <i>Coastal Engineering Proceedings</i> , 2012, 1, 22.	0.1	0