Tamlin M Pavelsky

List of Publications by Year
in descending order

102	5,764	71102	79698
papers	citations	41 h-index	73 g-index

121	121	121	5495
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Global extent of rivers and streams. Science, 2018, 361, 585-588.	12.6	436
2	MERIT Hydro: A Highâ€Resolution Global Hydrography Map Based on Latest Topography Dataset. Water Resources Research, 2019, 55, 5053-5073.	4.2	396
3	The SWOT Mission and Its Capabilities for Land Hydrology. Surveys in Geophysics, 2016, 37, 307-337.	4.6	333
4	Development of the Global Width Database for Large Rivers. Water Resources Research, 2014, 50, 3467-3480.	4.2	190
5	Estimation of river discharge, propagation speed, and hydraulic geometry from space: Lena River, Siberia. Water Resources Research, 2008, 44, .	4.2	185
6	RivWidth: A Software Tool for the Calculation of River Widths From Remotely Sensed Imagery. IEEE Geoscience and Remote Sensing Letters, 2008, 5, 70-73.	3.1	181
7	Global Reconstruction of Naturalized River Flows at 2.94 Million Reaches. Water Resources Research, 2019, 55, 6499-6516.	4.2	175
8	A simple global river bankfull width and depth database. Water Resources Research, 2013, 49, 7164-7168.	4.2	168
9	An intercomparison of remote sensing river discharge estimation algorithms from measurements of river height, width, and slope. Water Resources Research, 2016, 52, 4527-4549.	4.2	163
10	Rising minimum daily flows in northern Eurasian rivers: A growing influence of groundwater in the highâ€latitude hydrologic cycle. Journal of Geophysical Research, 2007, 112, .	3.3	158
11	Research Trends in the Use of Remote Sensing for Inland Water Quality Science: Moving Towards Multidisciplinary Applications. Water (Switzerland), 2020, 12, 169.	2.7	156
12	Assessing the potential global extent of SWOT river discharge observations. Journal of Hydrology, 2014, 519, 1516-1525.	5.4	142
13	Altimetry for the future: Building on 25 years of progress. Advances in Space Research, 2021, 68, 319-363.	2.6	119
14	Patterns of river width and surface area revealed by the satelliteâ€derived North American River Width data set. Geophysical Research Letters, 2015, 42, 395-402.	4.0	118
15	Remote sensing of suspended sediment concentration, flow velocity, and lake recharge in the Peaceâ€Athabasca Delta, Canada. Water Resources Research, 2009, 45, .	4.2	112
16	The past and future of global river ice. Nature, 2020, 577, 69-73.	27.8	109
17	Remote sensing of suspended sediment concentration and hydrologic connectivity in a complex wetland environment. Remote Sensing of Environment, 2013, 129, 197-209.	11.0	103
18	Global Relationships Between River Width, Slope, Catchment Area, Meander Wavelength, Sinuosity, and Discharge. Geophysical Research Letters, 2019, 46, 3252-3262.	4.0	91

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19	Arcticâ€Boreal Lake Dynamics Revealed Using CubeSat Imagery. Geophysical Research Letters, 2019, 46, 2111-2120.	4.0	87
20	Lithologic and tectonic controls on bedrock channel form at the northwest Himalayan front. Journal of Geophysical Research F: Earth Surface, 2013, 118, 1806-1825.	2.8	85
21	Temporal and spatial variations in maximum river discharge from a new Russian data set. Journal of Geophysical Research, 2007, 112, .	3.3	82
22	AquaSat: A Data Set to Enable Remote Sensing of Water Quality for Inland Waters. Water Resources Research, 2019, 55, 10012-10025.	4.2	78
23	Spatial and temporal patterns in Arctic river ice breakup observed with MODIS and AVHRR time series. Remote Sensing of Environment, 2004, 93, 328-338.	11.0	75
24	Atmospheric inversion strength over polar oceans in winter regulated by sea ice. Climate Dynamics, 2011, 36, 945-955.	3.8	72
25	RivWidthCloud: An Automated Google Earth Engine Algorithm for River Width Extraction From Remotely Sensed Imagery. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 217-221.	3.1	70
26	Similarity of stream width distributions across headwater systems. Nature Communications, 2018, 9, 610.	12.8	64
27	Remote sensing of volumetric storage changes in lakes. Earth Surface Processes and Landforms, 2009, 34, 1353-1358.	2.5	57
28	The Color of Rivers. Geophysical Research Letters, 2021, 48, .	4.0	57
29	Intercomparison of four global precipitation data sets and their correlation with increased Eurasian river discharge to the Arctic Ocean. Journal of Geophysical Research, 2006, 111, .	3.3	55
30	AirSWOT measurements of river water surface elevation and slope: Tanana River, AK. Geophysical Research Letters, 2017, 44, 181-189.	4.0	55
31	Comparison of Methods to Estimate Snow Water Equivalent at the Mountain Range Scale: A Case Study of the California Sierra Nevada. Journal of Hydrometeorology, 2017, 18, 1101-1119.	1.9	54
32	The SWOT Mission and Its Capabilities for Land Hydrology. Space Sciences Series of ISSI, 2016, , 117-147.	0.0	51
33	Spatial and temporal patterns in Arctic river ice breakup revealed by automated ice detection from MODIS imagery. Remote Sensing of Environment, 2016, 175, 310-322.	11.0	50
34	Comparing Discharge Estimates Made via the BAM Algorithm in Highâ€Order Arctic Rivers Derived Solely From Optical CubeSat, Landsat, and Sentinelâ€2 Data. Water Resources Research, 2019, 55, 7753-7771.	4.2	47
35	Automated River Reach Definition Strategies: Applications for the Surface Water and Ocean Topography Mission. Water Resources Research, 2017, 53, 8164-8186.	4.2	46
36	A New Estimate of North American Mountain Snow Accumulation From Regional Climate Model Simulations. Geophysical Research Letters, 2018, 45, 1423-1432.	4.0	46

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37	Remote sensing of hydrologic recharge in the Peaceâ€Athabasca Delta, Canada. Geophysical Research Letters, 2008, 35, .	4.0	45
38	Global Characterization of Inland Water Reservoirs Using ICESatâ€2 Altimetry and Climate Reanalysis. Geophysical Research Letters, 2020, 47, e2020GL088543.	4.0	44
39	The Surface Water and Ocean Topography (SWOT) Mission River Database (SWORD): A Global River Network for Satellite Data Products. Water Resources Research, 2021, 57, e2021WR030054.	4.2	44
40	Using width-based rating curves from spatially discontinuous satellite imagery to monitor river discharge. Hydrological Processes, 2014, 28, n/a-n/a.	2.6	43
41	Changes in orographic precipitation patterns caused by a shift from snow to rain. Geophysical Research Letters, 2012, 39, .	4.0	41
42	Identifying longâ€term empirical relationships between storm characteristics and episodic groundwater recharge. Water Resources Research, 2016, 52, 21-35.	4.2	40
43	Rapid decline in river icings detected in Arctic Alaska: Implications for a changing hydrologic cycle and river ecosystems. Geophysical Research Letters, 2017, 44, 3228-3235.	4.0	38
44	The effects of spatial resolution and dimensionality on modeling regionalâ€scale hydraulics in a multichannel river. Water Resources Research, 2017, 53, 1683-1701.	4.2	37
45	Characterizing Biases in Mountain Snow Accumulation From Global Data Sets. Water Resources Research, 2019, 55, 9873-9891.	4.2	36
46	Accumulation and melt dynamics of snowpack from a multiresolution regional climate model in the central Sierra Nevada, California. Journal of Geophysical Research, 2011, 116, .	3.3	35
47	Evaluation of snow cover fraction for regional climate simulations in the Sierra Nevada. International Journal of Climatology, 2015, 35, 2472-2484.	3.5	34
48	Artificial lake expansion amplifies mercury pollution from gold mining. Science Advances, 2020, 6, .	10.3	34
49	A Fusion Approach for Water Area Classification Using Visible, Near Infrared and Synthetic Aperture Radar for South Asian Conditions. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 2471-2480.	6.3	32
50	Spatial and Temporal Patterns in Baseflow Recession in the Continental United States. Water Resources Research, 2020, 56, e2019WR026425.	4.2	32
51	Evaluation of present and future North American Regional Climate Change Assessment Program (NARCCAP) regional climate simulations over the southeast United States. Journal of Geophysical Research, 2012, 117, .	3.3	31
52	An Empirical Reevaluation of Streamflow Recession Analysis at the Continental Scale. Water Resources Research, 2020, 56, e2019WR025448.	4.2	30
53	Improving the Transferability of Suspended Solid Estimation in Wetland and Deltaic Waters with an Empirical Hyperspectral Approach. Remote Sensing, 2019, 11, 1629.	4.0	29
54	AirSWOT InSAR Mapping of Surface Water Elevations and Hydraulic Gradients Across the Yukon Flats Basin, Alaska. Water Resources Research, 2019, 55, 937-953.	4.2	29

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55	Remote Sensing of Lake Ice Phenology across a Range of Lakes Sizes, ME, USA. Remote Sensing, 2019, 11, 1718.	4.0	28
56	The Abundance, Size, and Spacing of Lakes and Reservoirs Connected to River Networks. Geophysical Research Letters, 2019, 46, 2592-2601.	4.0	28
57	Multi-decadal improvement in US Lake water clarity. Environmental Research Letters, 2021, 16, 055025.	5.2	27
58	A High-Resolution Airborne Color-Infrared Camera Water Mask for the NASA ABoVE Campaign. Remote Sensing, 2019, 11, 2163.	4.0	26
59	Temporal variations in river water surface elevation and slope captured by AirSWOT. Remote Sensing of Environment, 2019, 224, 304-316.	11.0	25
60	Global River Radar Altimetry Time Series (GRRATS): new river elevation earth science data records for the hydrologic community. Earth System Science Data, 2020, 12, 137-150.	9.9	25
61	Can we detect more ephemeral floods with higher density harmonized Landsat Sentinel 2 data compared to Landsat 8 alone?. ISPRS Journal of Photogrammetry and Remote Sensing, 2022, 185, 232-246.	11.1	25
62	The impact of reach averaging Manningâ€™s equation for an in-situ dataset of water surface elevation, width, and slope. Journal of Hydrology, 2019, 578, 123866.	5.4	24
63	Estimating River Surface Elevation From ArcticDEM. Geophysical Research Letters, 2018, 45, 3107-3114.	4.0	23
64	Estimating Flood Discharges in Reservoir-Regulated River Basins by Integrating Synthetic SWOT Satellite Observations and Hydrologic Modeling. Journal of Hydrologic Engineering - ASCE, 2016, 21, .	1.9	21
65	Mapping Forest Aboveground Biomass Using Multisource Remotely Sensed Data. Remote Sensing, 2022, 14, 1115.	4.0	20
66	Tracing freshwater anomalies through the airâ€landâ€ocean system: A case study from the Mackenzie river basin and the Beaufort Gyre. Atmosphere - Ocean, 2009, 47, 79-97.	1.6	19
67	Quantifying river form variations in the Mississippi Basin using remotely sensed imagery. Hydrology and Earth System Sciences, 2014, 18, 4883-4895.	4.9	18
68	Temporally Variable Stream Width and Surface Area Distributions in a Headwater Catchment. Water Resources Research, 2019, 55, 7166-7181.	4.2	17
69	Shifting Patterns of Summer Lake Color Phenology in Over 26,000 US Lakes. Water Resources Research, 2021, 57, e2020WR029123.	4.2	17
70	A Participatory Science Approach to Expanding Instream Infrastructure Inventories. Earth's Future, 2020, 8, e2020EF001558.	6.3	16
71	Combining Optical Remote Sensing, McFLI Discharge Estimation, Global Hydrologic Modeling, and Data Assimilation to Improve Daily Discharge Estimates Across an Entire Large Watershed. Water Resources Research, 2021, 57, e2020WR027794.	4.2	16
72	Mapping Water Surface Elevation and Slope in the Mississippi River Delta Using the AirSWOT Ka-Band Interferometric Synthetic Aperture Radar. Remote Sensing, 2019, 11, 2739.	4.0	15

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73	Projected Changes to Extreme Runoff and Precipitation Events From a Downscaled Simulation Over the Western United States. Frontiers in Earth Science, 2020, 7, .	1.8	15
74	A Reassessment of North American River Basin Coolâ€Season Precipitation: Developments From a New Mountain Climatology Data Set. Water Resources Research, 2019, 55, 3502-3519.	4.2	14
75	Exploring the Factors Controlling the Error Characteristics of the Surface Water and Ocean Topography Mission Discharge Estimates. Water Resources Research, 2021, 57, e2020WR028519.	4.2	14
76	Airborne observations of arctic-boreal water surface elevations from AirSWOT Ka-Band InSAR and LVIS LiDAR. Environmental Research Letters, 2020, 15, 105005.	5.2	14
77	Plutonism in three dimensions: Field and geochemical relations on the southeast face of El Capitan, Yosemite National Park, California. , 2015, 11, 1133-1157.		13
78	Mapping Flowâ€Obstructing Structures on Global Rivers. Water Resources Research, 2022, 58, .	4.2	13
79	Anticipated Improvements to River Surface Elevation Profiles From the Surface Water and Ocean Topography Mission. Frontiers in Earth Science, 2019, 7, .	1.8	12
80	How will radar layover impact SWOT measurements of water surface elevation and slope, and estimates of river discharge?. Remote Sensing of Environment, 2020, 247, 111883.	11.0	11
81	Predicting the Likely Thermal Impact of Current and Future Dams Around the World. Earth's Future, 2021, 9, e2020EF001916.	6.3	11
82	The Importance of Lake Emergent Aquatic Vegetation for Estimating Arcticâ€Boreal Methane Emissions. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	11
83	Developing new algorithms for estimating river discharge from space. Eos, 2012, 93, 457-457.	0.1	10
84	Achieving Breakthroughs in Global Hydrologic Science by Unlocking the Power of Multisensor, Multidisciplinary Earth Observations. AGU Advances, 2021, 2, e2021AV000455.	5.4	10
85	Engaging the User Community for Advancing Societal Applications of the Surface Water Ocean Topography Mission. Bulletin of the American Meteorological Society, 2017, 98, ES285-ES290.	3.3	9
86	Canadaâ€™s Contributions to the SWOT Mission â€“ Terrestrial Hydrology(SWOT-C TH). Canadian Journal of Remote Sensing, 2019, 45, 116-138.	2.4	9
87	Tailoring WRF and Noahâ€MP to Improve Process Representation of Sierra Nevada Runoff: Diagnostic Evaluation and Applications. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001832.	3.8	9
88	Monitoring Variations in Lake Water Storage with Satellite Imagery and Citizen Science. Water (Switzerland), 2021, 13, 949.	2.7	9
89	Worldâ€™s landlocked basins drying. Nature Geoscience, 2018, 11, 892-893.	12.9	8
90	Watershedâ€Scale Effective Hydraulic Properties of the Continental United States. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002440.	3.8	8

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91	Bias Correction of Hydrologic Projections Strongly Impacts Inferred Climate Vulnerabilities in Institutionally Complex Water Systems. Journal of Water Resources Planning and Management - ASCE, 2022, 148, .	2.6	8
92	Understanding Volumetric Water Storage in Monsoonal Wetlands of Northeastern Bangladesh. Water Resources Research, 2020, 56, e2020WR027989.	4.2	7
93	Simple Method to Extract Lake Ice Condition From Landsat Images. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-10.	6.3	4
94	Discharge Estimation From Dense Arrays of Pressure Transducers. Water Resources Research, 2021, 57, e2020WR028714.	4.2	4
95	Remote sensing of lake ice phenology in Alaska. Environmental Research Letters, 2021, 16, 064007.	5.2	4
96	Flood Extent Mapping During Hurricane Florence With Repeatâ€Pass Lâ€Band UAVSAR Images. Water Resources Research, 2022, 58, .	4.2	4
97	Integrating Community Science Research and Spaceâ€Time Mapping to Determine Depth to Groundwater in a Remote Rural Region. Water Resources Research, 2021, 57, e2020WR029519.	4.2	3
98	Advancing Field-Based GNSS Surveying for Validation of Remotely Sensed Water Surface Elevation Products. Frontiers in Earth Science, 2020, 8, .	1.8	3
99	A Calibrationâ€Free Groundwater Module for Improving Predictions of Low Flows. Water Resources Research, 2022, 58, .	4.2	2
100	Editorial for the Special Issue â€œRemote Sensing of Flow Velocity, Channel Bathymetry, and River Dischargeâ€. Remote Sensing, 2020, 12, 2304.	4.0	1
101	Functional Lakeâ€toâ€Channel Connectivity Impacts Lake Ice in the Colville Delta, Alaska. Journal of Geophysical Research F: Earth Surface, 2021, 126, .	2.8	1
102	The Potential of SWOT River Discharge Estimates to Constrain Hydrological Processes Globally in Ungaged Basins. , 2020, , .		0