Guy J-p Schumann

List of Publications by Year
in descending order

117	7,447	56860	57558
papers	citations	44 h-index	83 g-index

143	143	143	6668
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Automated Surface Runoff Estimation with the Spectral Unmixing of Remotely Sensed Multispectral Imagery. Remote Sensing, 2024, 16, 136.	4.1	0
2	Assessing a Model-of-Models Approach for Global Flood Forecasting and Alerting. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2024, 17, 9641-9650.	4.9	0
3	Flood Modeling and Prediction Using Earth Observation Data. Surveys in Geophysics, 2023, 44, 1553-1578.	4.8	15
4	Simulating Changes in Hydrological Extremesâ€"Future Scenarios for Morocco. Water (Switzerland), 2023, 15, 2722.	2.8	3
5	A multi-sensor approach for increased measurements of floods and their societal impacts from space. Communications Earth & Environment, 2023, 4, .	6.7	4
6	Reviewing Applications of Remote Sensing Techniques to Hydrologic Research in Subâ€Saharan Africa, with a Special Focus on the Congo Basin. Geophysical Monograph Series, 2022, , 295-321.	0.0	2
7	Examen des applications des techniques de tÃ©lÃ©dÃ©tection Ã la recherche hydrologique en Afrique subsaharienne, avec un accent particulier sur le bassin du Congo. Geophysical Monograph Series, 2022, , 303-332.	0.0	0
8	An Overview of Flood Concepts, Challenges, and Future Directions. Journal of Hydrologic Engineering - ASCE, 2022, 27, .	2.2	49
9	Surface Water Dynamics from Space: A Round Robin Intercomparison of Using Optical and SAR High-Resolution Satellite Observations for Regional Surface Water Detection. Remote Sensing, 2022, 14, 2410.	4.1	18
10	Reproducibility and replicability of flood models. Hydrological Processes, 2022, 36, .	2.6	2
11	Combined Modeling of US Fluvial, Pluvial, and Coastal Flood Hazard Under Current and Future Climates. Water Resources Research, 2021, 57, e2020WR028673.	4.2	171
12	DFOâ€"Flood Observatory. , 2021, , 147-164.		10
13	The Full Potential of EO for Flood Applications: Managing Expectations. , 2021, , 305-320.		2
14	On the Impacts of Observation Location, Timing, and Frequency on Flood Extent Assimilation Performance. Water Resources Research, 2021, 57, e2020WR028238.	4.2	15
15	A Mutual Informationâ€Based Likelihood Function for Particle Filter Flood Extent Assimilation. Water Resources Research, 2021, 57, e2020WR027859.	4.2	16
16	Towards global flood mapping onboard low cost satellites with machine learning. Scientific Reports, 2021, 11, 7249.	3.4	94
17	Integrating Earth Observation Data of Floods with Largeâ€Scale Hydrodynamic Models. Geophysical Monograph Series, 2021, , 123-135.	0.0	0
18	Global Flood Partnership. Geophysical Monograph Series, 2021, , 307-322.	0.0	2

#	Article	IF	Citations
19	Generating Flood Hazard Maps Based on an Innovative Spatial Interpolation Methodology for Precipitation. Atmosphere, 2021, 12, 1336.	2.3	4
20	The influence of substrate surface conditioning and biofilm age on the composition of Enterococcus faecalis biofilms. International Endodontic Journal, 2020, 53, 53-61.	5.0	26
21	Bare Earth DEM Generation for Large Floodplains Using Image Classification in High-Resolution Single-Pass InSAR. Frontiers in Earth Science, 2020, 8, .	1.8	6
22	Comparing earth observation and inundation models to map flood hazards. Environmental Research Letters, 2020, 15, 124032.	5.3	22
23	Grand Challenges in Microwave Remote Sensing. Frontiers in Remote Sensing, 2020, 1, .	3.5	4
24	Applying Remote Sensing to Support Flood Risk Assessment and Relief Agencies: A Global to Local Approach. , 2020, , .		3
25	Flood Mapping Based on Synthetic Aperture Radar: An Assessment of Established Approaches. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 722-739.	6.4	85
26	The Utility of SMAP Soil Moisture and Freeze-Thaw Datasets as Precursors to Spring-Melt Flood Conditions: A Case Study in the Red River of the North Basin. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 2848-2861.	4.9	13
27	The need for scientific rigour and accountability in flood mapping to better support disaster response. Hydrological Processes, 2019, 33, 3138-3142.	2.6	13
28	Will the Surface Water and Ocean Topography (SWOT) Satellite Mission Observe Floods?. Geophysical Research Letters, 2019, 46, 10435-10445.	4.0	32
29	Challenges, Opportunities, and Pitfalls for Global Coupled Hydrologicâ€Hydraulic Modeling of Floods. Water Resources Research, 2019, 55, 5277-5300.	4.2	58
30	Rapid Mapping of Small-Scale River-Floodplain Environments Using UAV SfM Supports Classical Theory. Remote Sensing, 2019, 11, 982.	4.1	32
31	Preface: Remote Sensing for Flood Mapping and Monitoring of Flood Dynamics. Remote Sensing, 2019, 11, 943.	4.1	43
32	Global Relationships Between River Width, Slope, Catchment Area, Meander Wavelength, Sinuosity, and Discharge. Geophysical Research Letters, 2019, 46, 3252-3262.	4.0	102
33	A global network for operational flood risk reduction. Environmental Science and Policy, 2018, 84, 149-158.	5.0	97
34	The Need for a High-Accuracy, Open-Access Global DEM. Frontiers in Earth Science, 2018, 6, .	1.8	78
35	Assisting Flood Disaster Response with Earth Observation Data and Products: A Critical Assessment. Remote Sensing, 2018, 10, 1230.	4.1	106
36	Flow Duration Curve from Satellite: Potential of a Lifetime SWOT Mission. Remote Sensing, 2018, 10, 1107.	4.1	13

#	Article	IF	Citations
37	The Need for Mapping, Modeling, and Predicting Flood Hazard and Risk at the Global Scale. Geophysical Monograph Series, 2018, , 1-15.	0.0	7
38	From Precipitation to Damage. Geophysical Monograph Series, 2018, , 169-183.	0.0	1
39	Global Flood Risk Modeling and Projections of Climate Change Impacts. Geophysical Monograph Series, 2018, , 185-203.	0.0	11
40	Data Assimilation and River Hydrodynamic Modeling Over Large Scales. Geophysical Monograph Series, 2018, , 229-237.	0.0	5
41	Global Flood Hazard Mapping, Modeling, and Forecasting. Geophysical Monograph Series, 2018, , 239-244.	0.0	15
42	Rainfall Information for Global Flood Modeling. Geophysical Monograph Series, 2018, , 17-42.	0.0	7
43	Flood Risk Mapping From Orbital Remote Sensing. Geophysical Monograph Series, 2018, , 43-54.	0.0	11
44	Flood Mapping Using Synthetic Aperture Radar Sensors From Local to Global Scales. Geophysical Monograph Series, 2018, , 55-77.	0.0	16
45	Flood Hazard Mapping in Dataâ€Scarce Areas. Geophysical Monograph Series, 2018, , 79-86.	0.0	0
46	Global Flood Monitoring Using Satellite Precipitation and Hydrological Modeling. Geophysical Monograph Series, 2018, , 87-113.	0.0	5
47	Modeling and Mapping of Global Flood Hazard Layers. Geophysical Monograph Series, 2018, , 131-155.	0.0	3
48	Estimating Change in Flooding for the 21st Century Under a Conservative RCP Forcing. Geophysical Monograph Series, 2018, , 157-167.	0.0	10
49	Impact of the timing of a SAR image acquisition on the calibration of a flood inundation model. Advances in Water Resources, 2017, 100, 126-138.	3.8	28
50	Can Atmospheric Reanalysis Data Sets Be Used to Reproduce Flooding Over Large Scales?. Geophysical Research Letters, 2017, 44, 10,369.	4.0	16
51	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.	5.5	9
52	Automated River Reach Definition Strategies: Applications for the Surface Water and Ocean Topography Mission. Water Resources Research, 2017, 53, 8164-8186.	4.2	49
53	A Method to Assess Localized Impact of Better Floodplain Topography on Flood Risk Prediction. Advances in Meteorology, 2016, 2016, 1-8.	1.7	4
54	High-Accuracy Elevation Data at Large Scales from Airborne Single-Pass SAR Interferometry. Frontiers in Earth Science, 2016, 3, .	1.8	15

#	Article	IF	Citations
55	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	175
56	A Global Capacity Building Vision for Societal Applications of Earth Observing Systems and Data: Key Questions and Recommendations. Bulletin of the American Meteorological Society, 2016, 97, 1295-1299.	5.5	8
57	Exploiting the proliferation of current and future satellite observations of rivers. Hydrological Processes, 2016, 30, 2891-2896.	2.6	43
58	Role of Earth Observation Data in Disaster Response and Recovery: From Science to Capacity Building. Springer Remote Sensing/photogrammetry, 2016, , 119-146.	0.0	9
59	Rethinking flood hazard at the global scale. Geophysical Research Letters, 2016, 43, 10,249.	4.0	45
60	Unlocking the full potential of Earth observation during the 2015 Texas flood disaster. Water Resources Research, 2016, 52, 3288-3293.	4.2	35
61	Hardiness, psychosocial factors and shift work tolerance among nurses â€“ a 2â€year followâ€up study. Journal of Advanced Nursing, 2016, 72, 1800-1812.	3.7	26
62	Preface: Remote Sensing in Flood Monitoring and Management. Remote Sensing, 2015, 7, 17013-17015.	4.1	26
63	A review of lowâ€cost spaceâ€borne data for flood modelling: topography, flood extent and water level. Hydrological Processes, 2015, 29, 3368-3387.	2.6	110
64	Microwave remote sensing of flood inundation. Physics and Chemistry of the Earth, 2015, 83-84, 84-95.	3.1	144
65	Sea surface salinity variability in response to the Congo river discharge. Continental Shelf Research, 2015, 99, 35-45.	1.9	28
66	Measuring and Mapping Flood Processes. , 2015, , 35-64.		9
67	Fight floods on a global scale. Nature, 2014, 507, 169-169.	36.2	82
68	ROCâ€based calibration of flood inundation models. Hydrological Processes, 2014, 28, 5495-5502.	2.6	31
69	Observing Global Surface Water Flood Dynamics. Surveys in Geophysics, 2014, 35, 839-852.	4.8	41
70	Estimating the impact of satellite observations on the predictability of large-scale hydraulic models. Advances in Water Resources, 2014, 73, 44-54.	3.8	56
71	Megaflood analysis through channel networks of the Athabasca Valles, Mars based on multi-resolution stereo DTMs and 2D hydrodynamic modeling. Planetary and Space Science, 2014, 99, 55-69.	1.7	6
72	Downscaling coarse grid hydrodynamic model simulations over large domains. Journal of Hydrology, 2014, 508, 289-298.	5.6	34

#	Article	IF	Citations
73	Problems with binary pattern measures for flood model evaluation. Hydrological Processes, 2014, 28, 4928-4937.	2.6	79
74	SRTM vegetation removal and hydrodynamic modeling accuracy. Water Resources Research, 2013, 49, 5276-5289.	4.2	109
75	A Change Detection Approach to Flood Mapping in Urban Areas Using TerraSAR-X. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 2417-2430.	6.4	335
76	A first large-scale flood inundation forecasting model. Water Resources Research, 2013, 49, 6248-6257.	4.2	155
77	Understanding the variability of an extreme storm tide along a coastline. Estuarine, Coastal and Shelf Science, 2013, 123, 19-25.	2.1	29
78	A simple global river bankfull width and depth database. Water Resources Research, 2013, 49, 7164-7168.	4.2	177
79	A storm surge inundation model of the northern Bay of Bengal using publicly available data. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 358-369.	2.7	105
80	Hydraulic characterization of the middle reach of the Congo River. Water Resources Research, 2013, 49, 5059-5070.	4.2	89
81	Observing Global Surface Water Flood Dynamics. Space Sciences Series of ISSI, 2013, , 839-852.	0.0	6
82	Near Real-Time Flood Detection in Urban and Rural Areas Using High-Resolution Synthetic Aperture Radar Images. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 3041-3052.	6.4	170
83	The Use of Radar Imagery in Riverine Flood Inundation Studies. , 2012, , 115-140.		17
84	Geodetic corrections to Amazon River water level gauges using ICESat altimetry. Water Resources Research, 2012, 48, .	4.2	54
85	Floodplain channel morphology and networks of the middle Amazon River. Water Resources Research, 2012, 48, .	4.2	78
86	A subgrid channel model for simulating river hydraulics and floodplain inundation over large and data sparse areas. Water Resources Research, 2012, 48, .	4.2	354
87	A near real-time algorithm for flood detection in urban and rural areas using high resolution Synthetic Aperture Radar images. , 2011, , .		4
88	Towards an automated SAR-based flood monitoring system: Lessons learned from two case studies. Physics and Chemistry of the Earth, 2011, 36, 241-252.	3.1	365
89	Tracking water level changes of the Amazon Basin with space-borne remote sensing and integration with large scale hydrodynamic modelling: A review. Physics and Chemistry of the Earth, 2011, 36, 223-231.	3.1	29
90	Recent advances in mapping and modelling flood processes in lowland areas. Physics and Chemistry of the Earth, 2011, 36, 221-222.	3.1	2

#	Article	IF	Citations
91	Selecting the appropriate hydraulic model structure using low-resolution satellite imagery. Advances in Water Resources, 2011, 34, 38-46.	3.8	32
92	Evaluating a new LISFLOODâ€FP formulation with data from the summer 2007 floods in Tewkesbury, UK. Journal of Flood Risk Management, 2011, 4, 88-95.	3.4	118
93	Timely Low Resolution SAR Imagery To Support Floodplain Modelling: a Case Study Review. Surveys in Geophysics, 2011, 32, 255-269.	4.8	76
94	The accuracy of sequential aerial photography and SAR data for observing urban flood dynamics, a case study of the UK summer 2007 floods. Remote Sensing of Environment, 2011, 115, 2536-2546.	11.1	131
95	Data Utilization in Flood Inundation Modelling. , 2010, , 209-233.		11
96	Flood Detection in Urban Areas Using TerraSAR-X. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 882-894.	6.4	230
97	The direct use of radar satellites for event-specific flood risk mapping. Remote Sensing Letters, 2010, 1, 75-84.	1.4	32
98	Near realâ€time flood wave approximation on large rivers from space: Application to the River Po, Italy. Water Resources Research, 2010, 46, .	4.2	92
99	Flood-plain mapping: a critical discussion of deterministic and probabilistic approaches. Hydrological Sciences Journal, 2010, 55, 364-376.	2.7	220
100	Calibration and sequential updating of a coupled hydrologic-hydraulic model using remote sensing-derived water stages. Hydrology and Earth System Sciences, 2009, 13, 367-380.	5.0	61
101	Assessment of soil moisture fields from imperfect climate models with uncertain satellite observations. Hydrology and Earth System Sciences, 2009, 13, 1545-1553.	5.0	21
102	A technique for the calibration of hydraulic models using uncertain satellite observations of flood extent. Journal of Hydrology, 2009, 367, 276-282.	5.6	147
103	Water Level Estimation and Reduction of Hydraulic Model Calibration Uncertainties Using Satellite SAR Images of Floods. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 431-441.	6.4	110
104	The Utility of Spaceborne Radar to Render Flood Inundation Maps Based on Multialgorithm Ensembles. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2801-2807.	6.4	122
105	Progress in integration of remote sensingâ€“derived flood extent and stage data and hydraulic models. Reviews of Geophysics, 2009, 47, .	23.3	280
106	Estimating uncertainty associated with water stages from a single SAR image. Advances in Water Resources, 2008, 31, 1038-1047.	3.8	20
107	Comparison of remotely sensed water stages from LiDAR, topographic contours and SRTM. ISPRS Journal of Photogrammetry and Remote Sensing, 2008, 63, 283-296.	11.2	180
108	Conditioning Water Stages From Satellite Imagery on Uncertain Data Points. IEEE Geoscience and Remote Sensing Letters, 2008, 5, 810-813.	3.1	29

#	Article	IF	Citations
109	Evaluating uncertain flood inundation predictions with uncertain remotely sensed water stages. International Journal of River Basin Management, 2008, 6, 187-199.	2.5	17
110	Integration of SAR-derived river inundation areas, high-precision topographic data and a river flow model toward near real-time flood management. International Journal of Applied Earth Observation and Geoinformation, 2007, 9, 247-263.	1.2	220
111	High-Resolution 3-D Flood Information From Radar Imagery for Flood Hazard Management. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 1715-1725.	6.4	158
112	Deriving distributed roughness values from satellite radar data for flood inundation modelling. Journal of Hydrology, 2007, 344, 96-111.	5.6	127
113	Conformational Equilibrium of Bis(trifluoromethanesulfonyl) Imide Anion of a Room-Temperature Ionic Liquid:Â Raman Spectroscopic Study and DFT Calculations. Journal of Physical Chemistry B, 2006, 110, 8179-8183.	2.7	338
114	Capillary electrochromatography of amino acids with a protein-bonded porous-layer open-tubular column. Journal of Separation Science, 2006, 29, 277-281.	2.9	23
115	Application of a degree-day snow depth model to a Swiss glacierised catchment to improve neural network discharge forecasts. Hydrology Research, 2005, 36, 99-111.	2.5	2
116	Institutionen als Kognitionsproblem - Bemerkungen zu einer neurosensorischen Vermutung. Ordo, 2000, 51, 119-126.	0.1	14
117	DisasterAWARE â€“ A GLOBAL ALERTING PLATFORM FOR FLOOD EVENTS. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, VI-3/W1-2020, 107-113.	0.0	6