

Ralf Merz

List of Publications by Year in descending order

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112
papers

9,357
citations

60835

43
h-index

43165

92
g-index

172
all docs

172
docs citations

172
times ranked

12281
citing authors

#	ARTICLE	IF	CITATIONS
1	Changing climate both increases and decreases European river floods. <i>Nature</i> , 2019, 573, 108-111.	36.2	709
2	Regionalisation of catchment model parameters. <i>Journal of Hydrology</i> , 2004, 287, 95-123.	5.6	574
3	Understanding flood regime changes in Europe: a state-of-the-art assessment. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 2735-2772.	5.0	442
4	A process typology of regional floods. <i>Water Resources Research</i> , 2003, 39, .	4.2	367
5	Time stability of catchment model parameters: Implications for climate impact analyses. <i>Water Resources Research</i> , 2011, 47, .	4.2	342
6	A comparison of regionalisation methods for catchment model parameters. <i>Hydrology and Earth System Sciences</i> , 2005, 9, 157-171.	5.0	319
7	Floods and climate: emerging perspectives for flood risk assessment and management. <i>Natural Hazards and Earth System Sciences</i> , 2014, 14, 1921-1942.	3.7	252
8	A regional analysis of event runoff coefficients with respect to climate and catchment characteristics in Austria. <i>Water Resources Research</i> , 2009, 45, .	4.2	226
9	Flood frequency regionalisationâ€”spatial proximity vs. catchment attributes. <i>Journal of Hydrology</i> , 2005, 302, 283-306.	5.6	224
10	Spatio-temporal variability of event runoff coefficients. <i>Journal of Hydrology</i> , 2006, 331, 591-604.	5.6	219
11	Flood frequency hydrology: 1. Temporal, spatial, and causal expansion of information. <i>Water Resources Research</i> , 2008, 44, .	4.2	206
12	Metallic Co Nanoarray Catalyzes Selective NH ₃ Production from Electrochemical Nitrate Reduction at Current Densities Exceeding 2 A cm ⁻² . <i>Advanced Science</i> , 2021, 8, 2004523.	12.4	194
13	Seasonal characteristics of flood regimes across the Alpineâ€”Carpathian range. <i>Journal of Hydrology</i> , 2010, 394, 78-89.	5.6	182
14	Top-kriging - geostatistics on stream networks. <i>Hydrology and Earth System Sciences</i> , 2006, 10, 277-287.	5.0	174
15	Linking flood frequency to long-term water balance: Incorporating effects of seasonality. <i>Water Resources Research</i> , 2005, 41, .	4.2	168
16	Managing the effects of multiple stressors on aquatic ecosystems under water scarcity. The GLOBAQUA project. <i>Science of the Total Environment</i> , 2015, 503-504, 3-9.	8.2	167
17	Uncertainty and multiple objective calibration in regional water balance modelling: case study in 320 Austrian catchments. <i>Hydrological Processes</i> , 2007, 21, 435-446.	2.6	166
18	Flood timescales: Understanding the interplay of climate and catchment processes through comparative hydrology. <i>Water Resources Research</i> , 2012, 48, .	4.2	160

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19	Controls on event runoff coefficients in the eastern Italian Alps. <i>Journal of Hydrology</i> , 2009, 375, 312-325.	5.6	153
20	Flood frequency hydrology: 3. A Bayesian analysis. <i>Water Resources Research</i> , 2013, 49, 675-692.	4.2	145
21	Assimilating scatterometer soil moisture data into conceptual hydrologic models at the regional scale. <i>Hydrology and Earth System Sciences</i> , 2006, 10, 353-368.	5.0	144
22	Driver detection of water quality trends in three large European river basins. <i>Science of the Total Environment</i> , 2018, 612, 49-62.	8.2	139
23	Scale effects in conceptual hydrological modeling. <i>Water Resources Research</i> , 2009, 45, .	4.2	127
24	Regional calibration of catchment models: Potential for ungauged catchments. <i>Water Resources Research</i> , 2007, 43, .	4.2	120
25	Catchment classification by runoff behaviour with self-organizing maps (SOM). <i>Hydrology and Earth System Sciences</i> , 2011, 15, 2947-2962.	5.0	112
26	Hydrology under change: an evaluation protocol to investigate how hydrological models deal with changing catchments. <i>Hydrological Sciences Journal</i> , 2015, 60, 1184-1199.	2.7	111
27	Flood frequency hydrology: 2. Combining data evidence. <i>Water Resources Research</i> , 2008, 44, .	4.2	102
28	Causative classification of river flood events. <i>Wiley Interdisciplinary Reviews: Water</i> , 2019, 6, e1353.	7.1	101
29	The Impact of Vitamin D Level on COVID-19 Infection: Systematic Review and Meta-Analysis. <i>Frontiers in Public Health</i> , 2021, 9, 624559.	2.8	101
30	Runoff models and flood frequency statistics for design flood estimation in Austria – Do they tell a consistent story?. <i>Journal of Hydrology</i> , 2012, 456-457, 30-43.	5.6	90
31	Exploring Controls on Rainfall–Runoff Events: 1. Time Series–Based Event Separation and Temporal Dynamics of Event Runoff Response in Germany. <i>Water Resources Research</i> , 2018, 54, 7711-7732.	4.2	81
32	On the role of the runoff coefficient in the mapping of rainfall to flood return periods. <i>Hydrology and Earth System Sciences</i> , 2009, 13, 577-593.	5.0	79
33	Dependence between flood peaks and volumes: a case study on climate and hydrological controls. <i>Hydrological Sciences Journal</i> , 2015, 60, 968-984.	2.7	72
34	Hydroclimatic and water quality trends across three Mediterranean river basins. <i>Science of the Total Environment</i> , 2016, 571, 1392-1406.	8.2	71
35	National flood discharge mapping in Austria. <i>Natural Hazards</i> , 2008, 46, 53-72.	3.4	70
36	Comparative analysis of the seasonality of hydrological characteristics in Slovakia and Austria / Analyse comparative de la saisonnalit� de caract�ristiques hydrologiques en Slovaquie et en Autriche. <i>Hydrological Sciences Journal</i> , 2009, 54, 456-473.	2.7	68

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37	Step changes in the flood frequency curve: Process controls. <i>Water Resources Research</i> , 2012, 48, .	4.2	66
38	Spatial Patterns of Water Age: Using Young Water Fractions to Improve the Characterization of Transit Times in Contrasting Catchments. <i>Water Resources Research</i> , 2018, 54, 4767-4784.	4.2	59
39	Process controls on the statistical flood moments – a data based analysis. <i>Hydrological Processes</i> , 2009, 23, 675-696.	2.6	58
40	Search for exclusive or semi-exclusive $\hat{\nu}^3$ production and observation of exclusive and semi-exclusive e^+e^- production in pp collisions at $\sqrt{s}=7$ TeV. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.8	53
41	The SCALEX Campaign: Scale-Crossing Land Surface and Boundary Layer Processes in the TERENO-preAlpine Observatory. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 1217-1234.	5.5	53
42	DNA-PK Is Targeted by Multiple Vaccinia Virus Proteins to Inhibit DNA Sensing. <i>Cell Reports</i> , 2018, 25, 1953-1965.e4.	6.3	50
43	Modelling the hydrological impacts of rural land use change. <i>Hydrology Research</i> , 2014, 45, 737-754.	2.5	45
44	Combined uncertainty of hydrological model complexity and satellite-based forcing data evaluated in two data-scarce semi-arid catchments in Ethiopia. <i>Journal of Hydrology</i> , 2014, 519, 2049-2066.	5.6	41
45	Process-based interpretation of conceptual hydrological model performance using a multinational catchment set. <i>Water Resources Research</i> , 2017, 53, 7247-7268.	4.2	40
46	Auswirkungen des Klimawandels auf Hochwasser und Niederwasser. <i>Osterreichische Wasser- Und Abfallwirtschaft</i> , 2011, 63, 21-30.	0.5	38
47	Groundwater evaporation from salt pans: Examples from the eastern Arabian Peninsula. <i>Journal of Hydrology</i> , 2015, 531, 792-801.	5.6	38
48	A Process-Based Framework to Characterize and Classify Runoff Events: The Event Typology of Germany. <i>Water Resources Research</i> , 2020, 56, e2019WR026951.	4.2	38
49	Pericyte FAK negatively regulates Gas6/Axl signalling to suppress tumour angiogenesis and tumour growth. <i>Nature Communications</i> , 2020, 11, 2810.	13.2	37
50	Probabilistic envelope curves for extreme rainfall events. <i>Journal of Hydrology</i> , 2009, 378, 263-271.	5.6	36
51	Discharge Driven Nitrogen Dynamics in a Mesoscale River Basin As Constrained by Stable Isotope Patterns. <i>Environmental Science & Technology</i> , 2016, 50, 9187-9196.	10.5	36
52	New perspectives on interdisciplinary earth science at the Dead Sea: The DESERVE project. <i>Science of the Total Environment</i> , 2016, 544, 1045-1058.	8.2	35
53	Uncertainty of modelled flow regime for flow-ecological assessment in Southern Europe. <i>Science of the Total Environment</i> , 2018, 615, 1028-1047.	8.2	35
54	A European Flood Database: facilitating comprehensive flood research beyond administrative boundaries. <i>Proceedings of the International Association of Hydrological Sciences</i> , 0, 370, 89-95.	1.0	33

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55	Multi-response calibration of a conceptual hydrological model in the semiarid catchment of Wadi al Arab, Jordan. <i>Journal of Hydrology</i> , 2014, 509, 193-206.	5.6	32
56	Groundwater protection under water scarcity; from regional risk assessment to local wastewater treatment solutions in Jordan. <i>Science of the Total Environment</i> , 2020, 706, 136066.	8.2	32
57	Suizidbeihilfe in der Schweiz. <i>Sozialpolitik Ch</i> , 2017, 2017, .	0.2	31
58	Understanding Heavy Tails of Flood Peak Distributions. <i>Water Resources Research</i> , 2022, 58, .	4.2	31
59	Exploring Controls on Rainfallâ€”Runoff Events: 2. Regional Patterns and Spatial Controls of Event Characteristics in Germany. <i>Water Resources Research</i> , 2018, 54, 7688-7710.	4.2	30
60	Challenges to estimate surface- and groundwater flow in arid regions: The Dead Sea catchment. <i>Science of the Total Environment</i> , 2014, 485-486, 828-841.	8.2	29
61	The role of station density for predicting daily runoff by top-kriging interpolation in Austria. <i>Journal of Hydrology and Hydromechanics</i> , 2015, 63, 228-234.	2.0	28
62	How to identify groundwater-caused thermal anomalies in lakes based on multi-temporal satellite data in semi-arid regions. <i>Hydrology and Earth System Sciences</i> , 2014, 18, 2773-2787.	5.0	27
63	Effects of input discretization, model complexity, and calibration strategy on model performance in a dataâ€”scarce glacierized catchment in Central Asia. <i>Water Resources Research</i> , 2016, 52, 4674-4699.	4.2	27
64	Anpassungsstrategien an den Klimawandel fÃ¼r Ã–sterreichs Wasserwirtschaft â€” Ziele und Schlussfolgerungen der Studie fÃ¼r Bund und LÃ¤nder. <i>Osterreichische Wasser- Und Abfallwirtschaft</i> , 2011, 63, 1-10.	0.5	26
65	Extreme rainstorms: Comparing regional envelope curves to stochastically generated events. <i>Water Resources Research</i> , 2012, 48, .	4.2	23
66	Stable isotopes in river waters in the Tajik Pamirs: regional and temporal characteristics. <i>Isotopes in Environmental and Health Studies</i> , 2013, 49, 542-554.	1.1	23
67	Transformation of Generation Processes From Small Runoff Events to Large Floods. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090547.	4.0	23
68	Regionale Wasserbilanzkomponenten fÃ¼r Ã–sterreich auf Tagesbasis. <i>Osterreichische Wasser- Und Abfallwirtschaft</i> , 2005, 57, 43-56.	0.5	22
69	Transition on a Variable Bluntness 7-Degree Cone at High Reynolds Number. , 2018, , .		21
70	Regional nitrogen dynamics in the TERENO Bode River catchment, Germany, as constrained by stable isotope patterns. <i>Isotopes in Environmental and Health Studies</i> , 2016, 52, 61-74.	1.1	19
71	Parameter's Controls of Distributed Catchment Modelsâ€”How Much Information is in Conventional Catchment Descriptors?. <i>Water Resources Research</i> , 2020, 56, e2019WR026008.	4.2	19
72	Sensitivity analysis of SCHADEX extreme flood estimations to observed hydrometeorological variability. <i>Water Resources Research</i> , 2014, 50, 353-370.	4.2	18

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73	Floods in Austria. , 2019, , 169-177.		18
74	Improving large-scale groundwater models by considering fossil gradients. <i>Advances in Water Resources</i> , 2017, 103, 32-43.	3.8	17
75	Auswirkungen des Klimawandels auf das Wasserdargebot von Grund- und Oberflächenwasser. <i>Osterreichische Wasser- Und Abfallwirtschaft</i> , 2011, 63, 31-41.	0.5	16
76	Alterations in hippocampal mitochondrial dynamics are associated with neurodegeneration and recognition memory decline in old male mice. <i>Biogerontology</i> , 2022, 23, 251-271.	4.2	16
77	Tomography of anthropogenic nitrate contribution along a mesoscale river. <i>Science of the Total Environment</i> , 2018, 615, 773-783.	8.2	14
78	Optimization of the geopotential heights information used in a rainfall-based weather patterns classification over Austria. <i>International Journal of Climatology</i> , 2013, 33, 1563-1573.	3.5	13
79	The flood cooking book: ingredients and regional flavors of floods across Germany. <i>Environmental Research Letters</i> , 2020, 15, 114024.	5.3	13
80	Is there any effect of pneumoperitoneum pressure on coagulation and fibrinolysis during laparoscopic cholecystectomy?. <i>PeerJ</i> , 2016, 4, e2375.	2.0	13
81	Estimating groundwater recharge for an arid karst system using a combined approach of time-lapse camera monitoring and water balance modelling. <i>Hydrological Processes</i> , 2016, 30, 771-782.	2.6	12
82	Bridging Glaciological and Hydrological Trends in the Pamir Mountains, Central Asia. <i>Water (Switzerland)</i> , 2017, 9, 422.	2.8	11
83	PHEV! The PHysically-based Extreme Value distribution of river flows. <i>Environmental Research Letters</i> , 2021, 16, 124065.	5.3	11
84	Antibiofilm activity of the biosurfactant and organic acids against foodborne pathogens at different temperatures, times of contact, and concentrations. <i>Brazilian Journal of Microbiology</i> , 2022, 53, 1051-1064.	2.0	11
85	Reliable estimation of high floods: A method to select the most suitable ordinary distribution in the Metastatistical extreme value framework. <i>Advances in Water Resources</i> , 2022, 161, 104127.	3.8	10
86	Drivers of multi-decadal nitrate regime shifts in a large European catchment. <i>Environmental Research Letters</i> , 2022, 17, 064039.	5.3	10
87	Extreme flooding controlled by stream network organization and flow regime. <i>Nature Geoscience</i> , 2023, 16, 339-343.	11.9	10
88	Changes in quality and microbial diversity of refrigerated carp fillets treated by chitosan/zein bilayer film with curcumin/nisin-loaded pectin nanoparticles. <i>Food Bioscience</i> , 2023, 54, 102941.	4.5	10
89	The Co-effect of <i>Cordyceps sinensis</i> and Strontium on Osteoporosis in Ovariectomized Osteopenic Rats. <i>Biological Trace Element Research</i> , 2011, 141, 216-223.	3.7	8
90	Hochwasserabflüsse in Österreich – das HORA-Projekt. <i>Osterreichische Wasser- Und Abfallwirtschaft</i> , 2008, 60, 129-138.	0.5	7

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91	Landform "Hydrology Feedbacks. Lecture Notes in Earth Sciences, 2009, , 117-126.	0.0	7
92	Deployment and Alcohol Use in a Military Cohort: Use of Combined Methods to Account for Exposure-Related Covariates and Heterogeneous Response to Exposure. American Journal of Epidemiology, 2017, 186, 411-419.	3.7	6
93	Wireless technology agnostic real-time localization in urban areas. , 2011, , .		4
94	FLOODS IN AUSTRIA. , 2006, , 81-90.		4
95	Disturbance to biocrusts decreased cyanobacteria, <sc>N</sc> fixer abundance, and grass leaf <sc>N</sc> but increased fungal abundance. Ecology, 2022, 103, e3656.	3.5	4
96	Pendekatan Praksis-Teologis dalam Fondasi Pendidikan Kristiani. Kurios, 2018, 4, 167.	0.2	3
97	Ion Exchange Properties of G $\frac{1}{4}$ nterblassite and Gmelinite, Prototypes of Microporous Materials for Water Purification. Russian Journal of Applied Chemistry, 2020, 93, 595-602.	0.5	2
98	IER3 (IEX \hat{c}) dysregulation serves as a potential prognostic factor in acute myeloid leukemia patients. International Journal of Laboratory Hematology, 2021, , .	1.3	2
99	Care policies for children and adults in high-income countries. , 2018, , .		2
100	Identifying discontinuities of flood frequency curves. Journal of Hydrology, 2023, 617, 128989.	5.6	2
101	Disentangling scatter in long-term concentration"discharge relationships: the role of event types. Hydrology and Earth System Sciences, 2022, 26, 6227-6245.	5.0	2
102	Winter post-droughts amplify extreme nitrate concentrations in German rivers. Environmental Research Letters, 2024, 19, 024007.	5.3	2
103	On the space-time dynamics of the run-of-river hydropower potential in Austria. Elektrotechnik Und Informationstechnik, 2013, 130, 2-8.	0.7	1
104	Advances in Regionalising Flood Probabilities. , 2011, , 97-115.		1
105	Prediction of Extraordinarily High Floods Emerging From Heterogeneous Flow Generation Processes. Geophysical Research Letters, 2023, 50, .	4.0	1
106	Discharge Pattern in the Gunt Valley, Western Pamir, with respect to $\hat{2}H$, $\hat{1}8O$ and Hydrochemistry. , 2016, , 281-284.		0
107	Flood risk mapping of Austrian railway lines. , 2008, , 1625-1630.		0
108	Mogu \hat{c} nosti primene instrumenata upitni \hat{c} kog tipa namenjenih samoproceni kapaciteta za samozastupanje osoba sa intelektualnim te \hat{c} ko \hat{c} tama. Primenjena Psihologija, 2009, 2, 231-251.	0.5	0

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109	Identificaci3n de posibles dianas terap3uticas en la enfermedad de la diabetes mellitus tipo 2 (T2DM) en base a estudios bioinform3ticos. <i>Medicinas UTA</i> , 2023, 7, 107-122.	0.1	0
110	Inferring heavy tails of flood distributions through hydrograph recession analysis. <i>Hydrology and Earth System Sciences</i> , 2023, 27, 4369-4384.	5.0	0
111	Regional multi-objective calibration for distributed hydrological modelling: a decision tree based approach. <i>Proceedings of the International Association of Hydrological Sciences</i> , 0, 385, 65-69.	1.0	0
112	Diagnostics of power cable insulation by using the methods of dielectric spectroscopy: overview of physical basis and features of practical application. <i>Bulletin of NTU KhPI Series Problems of Electrical Machines and Apparatus Perfection the Theory and Practice</i> , 2024, , 79-84.	0.0	0