# Ralf Merz

List of Publications by Year
in descending order

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|---|---|---|---|
| 80 papers | 8,336 citations | 76196 40 h-index | 60497 81 g-index |
| 114 all docs | 114 docs citations | 114 times ranked | 6727 citing authors |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 1 | Reliable estimation of high floods: A method to select the most suitable ordinary distribution in the Metastatistical extreme value framework. Advances in Water Resources, 2022, 161, 104127. | 1.7 | 7 |
| 2 | Drivers of multi-decadal nitrate regime shifts in a large European catchment. Environmental Research Letters, 2022, 17, 064039. | 2.2 | 8 |
| 3 | Understanding Heavy Tails of Flood Peak Distributions. Water Resources Research, 2022, 58, . | 1.7 | 23 |
| 4 | PHEV! The PHysically-based Extreme Value distribution of river flows. Environmental Research Letters, 2021, 16, 124065. | 2.2 | 10 |
| 5 | Groundwater protection under water scarcity; from regional risk assessment to local wastewater treatment solutions in Jordan. Science of the Total Environment, 2020, 706, 136066. | 3.9 | 28 |
| 6 | Transformation of Generation Processes From Small Runoff Events to Large Floods. Geophysical Research Letters, 2020, 47, e2020GL090547. | 1.5 | 19 |
| 7 | Parameter's Controls of Distributed Catchment Models—How Much Information is in Conventional Catchment Descriptors?. Water Resources Research, 2020, 56, e2019WR026008. | 1.7 | 17 |
| 8 | A Process‐Based Framework to Characterize and Classify Runoff Events: The Event Typology of Germany. Water Resources Research, 2020, 56, e2019WR026951. | 1.7 | 37 |
| 9 | The flood cooking book: ingredients and regional flavors of floods across Germany. Environmental Research Letters, 2020, 15, 114024. | 2.2 | 12 |
| 10 | Causative classification of river flood events. Wiley Interdisciplinary Reviews: Water, 2019, 6, e1353. | 2.8 | 86 |
| 11 | Changing climate both increases and decreases European river floods. Nature, 2019, 573, 108-111. | 13.7 | 639 |
| 12 | Floods in Austria. , 2019, , 169-177. | | 18 |
| 13 | Tomography of anthropogenic nitrate contribution along a mesoscale river. Science of the Total Environment, 2018, 615, 773-783. | 3.9 | 14 |
| 14 | Uncertainty of modelled flow regime for flow-ecological assessment in Southern Europe. Science of the Total Environment, 2018, 615, 1028-1047. | 3.9 | 35 |
| 15 | Spatial Patterns of Water Age: Using Young Water Fractions to Improve the Characterization of Transit Times in Contrasting Catchments. Water Resources Research, 2018, 54, 4767-4784. | 1.7 | 52 |
| 16 | Exploring Controls on Rainfall‐Runoff Events: 1. Time Series‐Based Event Separation and Temporal Dynamics of Event Runoff Response in Germany. Water Resources Research, 2018, 54, 7711-7732. | 1.7 | 75 |
| 17 | Exploring Controls on Rainfall‐Runoff Events: 2. Regional Patterns and Spatial Controls of Event Characteristics in Germany. Water Resources Research, 2018, 54, 7688-7710. | 1.7 | 29 |
| 18 | Driver detection of water quality trends in three large European river basins. Science of the Total Environment, 2018, 612, 49-62. | 3.9 | 126 |

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|---|---------|-----|-----------|
| 19 | The Bode hydrological observatory: a platform for integrated, interdisciplinary hydro-ecological research within the TERENO Harz/Central German Lowland Observatory. Environmental Earth Sciences, 2017, 76, 1. | 1.3 | 93 |
| 20 | Improving large-scale groundwater models by considering fossil gradients. Advances in Water Resources, 2017, 103, 32-43. | 1.7 | 17 |
| 21 | Changing climate shifts timing of European floods. Science, 2017, 357, 588-590. | 6.0 | 584 |
| 22 | Process‐based interpretation of conceptual hydrological model performance using a multinational catchment set. Water Resources Research, 2017, 53, 7247-7268. | 1.7 | 36 |
| 23 | Bridging Glaciological and Hydrological Trends in the Pamir Mountains, Central Asia. Water (Switzerland), 2017, 9, 422. | 1.2 | 11 |
| 24 | The SCALEX Campaign: Scale-Crossing Land Surface and Boundary Layer Processes in the TERENO-preAlpine Observatory. Bulletin of the American Meteorological Society, 2017, 98, 1217-1234. | 1.7 | 49 |
| 25 | Hydroclimatic and water quality trends across three Mediterranean river basins. Science of the Total Environment, 2016, 571, 1392-1406. | 3.9 | 68 |
| 26 | Discharge Driven Nitrogen Dynamics in a Mesoscale River Basin As Constrained by Stable Isotope Patterns. Environmental Science &amp; Technology, 2016, 50, 9187-9196. | 4.6 | 34 |
| 27 | Effects of input discretization, model complexity, and calibration strategy on model performance in a data‐scarce glacierized catchment in Central Asia. Water Resources Research, 2016, 52, 4674-4699. | 1.7 | 25 |
| 28 | New perspectives on interdisciplinary earth science at the Dead Sea: The DESERVE project. Science of the Total Environment, 2016, 544, 1045-1058. | 3.9 | 34 |
| 29 | Estimating groundwater recharge for an arid karst system using a combined approach of time-lapse camera monitoring and water balance modelling. Hydrological Processes, 2016, 30, 771-782. | 1.1 | 12 |
| 30 | Regional nitrogen dynamics in the TERENO Bode River catchment, Germany, as constrained by stable isotope patterns. Isotopes in Environmental and Health Studies, 2016, 52, 61-74. | 0.5 | 19 |
| 31 | Dependence between flood peaks and volumes: a case study on climate and hydrological controls. Hydrological Sciences Journal, 2015, 60, 968-984. | 1.2 | 67 |
| 32 | Hydrology under change: an evaluation protocol to investigate how hydrological models deal with changing catchments. Hydrological Sciences Journal, 2015, 60, 1184-1199. | 1.2 | 105 |
| 33 | Groundwater evaporation from salt pans: Examples from the eastern Arabian Peninsula. Journal of Hydrology, 2015, 531, 792-801. | 2.3 | 35 |
| 34 | Managing the effects of multiple stressors on aquatic ecosystems under water scarcity. The GLOBAQUA project. Science of the Total Environment, 2015, 503-504, 3-9. | 3.9 | 161 |
| 35 | The role of station density for predicting daily runoff by top-kriging interpolation in Austria. Journal of Hydrology and Hydromechanics, 2015, 63, 228-234. | 0.7 | 27 |
| 36 | Floods and climate: emerging perspectives for flood risk assessment and management. Natural Hazards and Earth System Sciences, 2014, 14, 1921-1942. | 1.5 | 239 |

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|---|---------|----|-----------|
| 37 | Understanding flood regime changes in Europe: a state-of-the-art assessment. Hydrology and Earth System Sciences, 2014, 18, 2735-2772. | 1.9 | 423 |
| 38 | How to identify groundwater-caused thermal anomalies in lakes based on multi-temporal satellite data in semi-arid regions. Hydrology and Earth System Sciences, 2014, 18, 2773-2787. | 1.9 | 25 |
| 39 | Modelling the hydrological impacts of rural land use change. Hydrology Research, 2014, 45, 737-754. | 1.1 | 44 |
| 40 | Combined uncertainty of hydrological model complexity and satellite-based forcing data evaluated in two data-scarce semi-arid catchments in Ethiopia. Journal of Hydrology, 2014, 519, 2049-2066. | 2.3 | 40 |
| 41 | Multi-response calibration of a conceptual hydrological model in the semiarid catchment of Wadi al Arab, Jordan. Journal of Hydrology, 2014, 509, 193-206. | 2.3 | 31 |
| 42 | Challenges to estimate surface- and groundwater flow in arid regions: The Dead Sea catchment. Science of the Total Environment, 2014, 485-486, 828-841. | 3.9 | 28 |
| 43 | Sensitivity analysis of SCHADEX extreme flood estimations to observed hydrometeorological variability. Water Resources Research, 2014, 50, 353-370. | 1.7 | 17 |
| 44 | Optimization of the geopotential heights information used in a rainfall€based weather patterns classification over Austria. International Journal of Climatology, 2013, 33, 1563-1573. | 1.5 | 12 |
| 45 | Localisation and temporal variability of groundwater discharge into the Dead Sea using thermal satellite data. Environmental Earth Sciences, 2013, 69, 587-603. | 1.3 | 33 |
| 46 | Application of the water balance model J2000 to estimate groundwater recharge in a semi-arid environment: a case study in the Zarqa River catchment, NW-Jordan. Environmental Earth Sciences, 2013, 69, 605-615. | 1.3 | 17 |
| 47 | Flood frequency hydrology: 3. A Bayesian analysis. Water Resources Research, 2013, 49, 675-692. | 1.7 | 137 |
| 48 | Stable isotopes in river waters in the Tajik Pamirs: regional and temporal characteristics. Isotopes in Environmental and Health Studies, 2013, 49, 542-554. | 0.5 | 22 |
| 49 | Extreme rainstorms: Comparing regional envelope curves to stochastically generated events. Water Resources Research, 2012, 48, . | 1.7 | 23 |
| 50 | Step changes in the flood frequency curve: Process controls. Water Resources Research, 2012, 48, . | 1.7 | 63 |
| 51 | Flood timescales: Understanding the interplay of climate and catchment processes through comparative hydrology. Water Resources Research, 2012, 48, . | 1.7 | 156 |
| 52 | Runoff models and flood frequency statistics for design flood estimation in Austria â€" Do they tell a consistent story?. Journal of Hydrology, 2012, 456-457, 30-43. | 2.3 | 84 |
| 53 | Time stability of catchment model parameters: Implications for climate impact analyses. Water Resources Research, 2011, 47, . | 1.7 | 334 |
| 54 | Catchment classification by runoff behaviour with self-organizing maps (SOM). Hydrology and Earth System Sciences, 2011, 15, 2947-2962. | 1.9 | 109 |

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|---|---------|-----|-----------|
| 55 | Advances in Regionalising Flood Probabilities. , 2011, , 97-115. | | 1 |
| 56 | Seasonal characteristics of flood regimes across the Alpine–Carpathian range. Journal of Hydrology, 2010, 394, 78-89. | 2.3 | 181 |
| 57 | On the role of the runoff coefficient in the mapping of rainfall to flood return periods. Hydrology and Earth System Sciences, 2009, 13, 577-593. | 1.9 | 76 |
| 58 | Controls on event runoff coefficients in the eastern Italian Alps. Journal of Hydrology, 2009, 375, 312-325. | 2.3 | 149 |
| 59 | Probabilistic envelope curves for extreme rainfall events. Journal of Hydrology, 2009, 378, 263-271. | 2.3 | 36 |
| 60 | Process controls on the statistical flood moments —a data based analysis. Hydrological Processes, 2009, 23, 675-696. | 1.1 | 56 |
| 61 | Comparative analysis of the seasonality of hydrological characteristics in Slovakia and Austria / Analyse comparative de la saisonnalité de caractéristiques hydrologiques en Slovaquie et en Autriche. Hydrological Sciences Journal, 2009, 54, 456-473. | 1.2 | 68 |
| 62 | Scale effects in conceptual hydrological modeling. Water Resources Research, 2009, 45, . | 1.7 | 124 |
| 63 | A regional analysis of event runoff coefficients with respect to climate and catchment characteristics in Austria. Water Resources Research, 2009, 45, . | 1.7 | 218 |
| 64 | Landform – Hydrology Feedbacks. Lecture Notes in Earth Sciences, 2009, , 117-126. | 0.5 | 6 |
| 65 | National flood discharge mapping in Austria. Natural Hazards, 2008, 46, 53-72. | 1.6 | 67 |
| 66 | Flood frequency hydrology: 1. Temporal, spatial, and causal expansion of information. Water Resources Research, 2008, 44, . | 1.7 | 197 |
| 67 | Flood frequency hydrology: 2. Combining data evidence. Water Resources Research, 2008, 44, . | 1.7 | 95 |
| 68 | Flood risk mapping of Austrian railway lines. , 2008, , 1625-1630. | | 0 |
| 69 | Regional calibration of catchment models: Potential for ungauged catchments. Water Resources Research, 2007, 43, . | 1.7 | 118 |
| 70 | Uncertainty and multiple objective calibration in regional water balance modelling: case study in 320 Austrian catchments. Hydrological Processes, 2007, 21, 435-446. | 1.1 | 157 |
| 71 | Spatio-temporal variability of event runoff coefficients. Journal of Hydrology, 2006, 331, 591-604. | 2.3 | 212 |
| 72 | Top-kriging - geostatistics on stream networks. Hydrology and Earth System Sciences, 2006, 10, 277-287. | 1.9 | 171 |

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|---|---------|-----|-----------|
| 73 | Assimilating scatterometer soil moisture data into conceptual hydrologic models at the regional scale. Hydrology and Earth System Sciences, 2006, 10, 353-368. | 1.9 | 142 |
| 74 | FLOODS IN AUSTRIA. , 2006, , 81-90. | | 3 |
| 75 | A comparison of regionalisation methods for catchment model parameters. Hydrology and Earth System Sciences, 2005, 9, 157-171. | 1.9 | 309 |
| 76 | Flood frequency regionalisation—spatial proximity vs. catchment attributes. Journal of Hydrology, 2005, 302, 283-306. | 2.3 | 218 |
| 77 | Linking flood frequency to long-term water balance: Incorporating effects of seasonality. Water Resources Research, 2005, 41, . | 1.7 | 161 |
| 78 | Regionalisation of catchment model parameters. Journal of Hydrology, 2004, 287, 95-123. | 2.3 | 549 |
| 79 | A process typology of regional floods. Water Resources Research, 2003, 39, . | 1.7 | 347 |
| 80 | A European Flood Database: facilitating comprehensive flood research beyond administrative boundaries. Proceedings of the International Association of Hydrological Sciences, 0, 370, 89-95. | 1.0 | 32 |