

# Bruno Merz

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/5263668/bruno-merz-publications-by-citations.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

213  
papers

11,520  
citations

55  
h-index

102  
g-index

267  
ext. papers

13,423  
ext. citations

5.1  
avg, IF

6.51  
L-index

| #   | Paper   | IF   | Citations |
|-----|---|------|-----------|
| 213 | Review article "Assessment of economic flood damage"; <i>Natural Hazards and Earth System Sciences</i> , <b>2010</b> , 10, 1697-1724  | 3.9  | 696       |
| 212 | Changing climate shifts timing of European floods. <i>Science</i> , <b>2017</b> , 357, 588-590  | 33.3 | 402       |
| 211 | Changing climate both increases and decreases European river floods. <i>Nature</i> , <b>2019</b> , 573, 108-111   | 50.4 | 344       |
| 210 | Understanding flood regime changes in Europe: a state-of-the-art assessment. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 2735-2772   | 5.5  | 334       |
| 209 | Flood risk assessment and associated uncertainty. <i>Natural Hazards and Earth System Sciences</i> , <b>2004</b> , 4, 295-308   | 3.9  | 323       |
| 208 | Estimation uncertainty of direct monetary flood damage to buildings. <i>Natural Hazards and Earth System Sciences</i> , <b>2004</b> , 4, 153-163  | 3.9  | 296       |
| 207 | Fluvial flood risk management in a changing world. <i>Natural Hazards and Earth System Sciences</i> , <b>2010</b> , 10, 509-527   | 3.9  | 276       |
| 206 | Flood loss reduction of private households due to building precautionary measures – lessons learned from the Elbe flood in August 2002. <i>Natural Hazards and Earth System Sciences</i> , <b>2005</b> , 5, 117-126 | 3.9  | 262       |
| 205 | At what scales do climate variability and land cover change impact on flooding and low flows?. <i>Hydrological Processes</i> , <b>2007</b> , 21, 1241-1247  | 3.3  | 259       |
| 204 | Flood damage and influencing factors: New insights from the August 2002 flood in Germany. <i>Water Resources Research</i> , <b>2005</b> , 41,   | 5.4  | 234       |
| 203 | Trends in flood magnitude, frequency and seasonality in Germany in the period 1951–2002. <i>Journal of Hydrology</i> , <b>2009</b> , 371, 129-141   | 6    | 232       |
| 202 | Coping with floods: preparedness, response and recovery of flood-affected residents in Germany in 2002. <i>Hydrological Sciences Journal</i> , <b>2007</b> , 52, 1016-1037  | 3.5  | 227       |
| 201 | Flood-risk mapping: contributions towards an enhanced assessment of extreme events and associated risks. <i>Natural Hazards and Earth System Sciences</i> , <b>2006</b> , 6, 485-503                                | 3.9  | 199       |
| 200 | Integrating human behaviour dynamics into flood disaster risk assessment. <i>Nature Climate Change</i> , <b>2018</b> , 8, 193-199   | 21.4 | 186       |
| 199 | Floods and climate: emerging perspectives for flood risk assessment and management. <i>Natural Hazards and Earth System Sciences</i> , <b>2014</b> , 14, 1921-1942  | 3.9  | 184       |
| 198 | A Probabilistic Modelling System for Assessing Flood Risks. <i>Natural Hazards</i> , <b>2006</b> , 38, 79-100   | 3    | 180       |
| 197 | Flood risk curves and uncertainty bounds. <i>Natural Hazards</i> , <b>2009</b> , 51, 437-458  | 3    | 167       |

|     |   |      |     |
|-----|---|------|-----|
| 196 | What do we know about past changes in the water cycle of Central Asian headwaters? A review. <i>Global and Planetary Change</i> , <b>2013</b> , 110, 4-25                                     | 4.2  | 166 |
| 195 | Is flow velocity a significant parameter in flood damage modelling?. <i>Natural Hazards and Earth System Sciences</i> , <b>2009</b> , 9, 1679-1692  | 3.9  | 161 |
| 194 | Separating natural and epistemic uncertainty in flood frequency analysis. <i>Journal of Hydrology</i> , <b>2005</b> , 309, 114-132  | 6    | 155 |
| 193 | Insurability and mitigation of flood losses in private households in Germany. <i>Risk Analysis</i> , <b>2006</b> , 26, 383-395  | 3.5  | 154 |
| 192 | An analysis of the effects of spatial variability of soil and soil moisture on runoff. <i>Water Resources Research</i> , <b>1997</b> , 33, 2909-2922  | 5.4  | 153 |
| 191 | Flood risk assessments at different spatial scales. <i>Mitigation and Adaptation Strategies for Global Change</i> , <b>2015</b> , 20, 865-890   | 3.9  | 148 |
| 190 | Flood trends and variability in the Mekong river. <i>Hydrology and Earth System Sciences</i> , <b>2010</b> , 14, 407-418  | 5.5  | 147 |
| 189 | HESS Opinions &quot;More efforts and scientific rigour are needed to attribute trends in flood time series&quot;. <i>Hydrology and Earth System Sciences</i> , <b>2012</b> , 16, 1379-1387    | 5.5  | 141 |
| 188 | Multi-variate flood damage assessment: a tree-based data-mining approach. <i>Natural Hazards and Earth System Sciences</i> , <b>2013</b> , 13, 53-64  | 3.9  | 141 |
| 187 | Development of FLEMOcs a new model for the estimation of flood losses in the commercial sector. <i>Hydrological Sciences Journal</i> , <b>2010</b> , 55, 1302-1314                            | 3.5  | 129 |
| 186 | Comparative Risk Assessments for the City of Cologne to Storms, Floods, Earthquakes. <i>Natural Hazards</i> , <b>2006</b> , 38, 21-44   | 3    | 128 |
| 185 | Flood Risk Mapping At The Local Scale: Concepts and Challenges. <i>Advances in Natural and Technological Hazards Research</i> , <b>2007</b> , 231-251   | 1.8  | 124 |
| 184 | Quantification of uncertainties in flood risk assessments. <i>International Journal of River Basin Management</i> , <b>2008</b> , 6, 149-162  | 1.7  | 113 |
| 183 | Adaptation to flood risk: Results of international paired flood event studies. <i>Earth's Future</i> , <b>2017</b> , 5, 953-965   | 3.65 | 111 |
| 182 | Attribution of streamflow trends in snow and glacier melt-dominated catchments of the Tarim River, Central Asia. <i>Water Resources Research</i> , <b>2015</b> , 51, 4727-4750                | 5.4  | 110 |
| 181 | Recent changes in flood preparedness of private households and businesses in Germany. <i>Regional Environmental Change</i> , <b>2011</b> , 11, 59-71  | 4.3  | 110 |
| 180 | Future sediment dynamics in the Mekong Delta floodplains: Impacts of hydropower development, climate change and sea level rise. <i>Global and Planetary Change</i> , <b>2015</b> , 127, 22-33 | 4.2  | 109 |
| 179 | A new methodology for flood hazard assessment considering dike breaches. <i>Water Resources Research</i> , <b>2010</b> , 46,  | 5.4  | 97  |

|     |  |     |    |
|-----|--|-----|----|
| 178 | How useful are complex flood damage models?. <i>Water Resources Research</i> , <b>2014</b> , 50, 3378-3395   | 5.4 | 96 |
| 177 | Spatially coherent flood risk assessment based on long-term continuous simulation with a coupled model chain. <i>Journal of Hydrology</i> , <b>2015</b> , 524, 182-193   | 6   | 95 |
| 176 | What made the June 2013 flood in Germany an exceptional event? A hydro-meteorological evaluation. <i>Hydrology and Earth System Sciences</i> , <b>2015</b> , 19, 309-327   | 5.5 | 95 |
| 175 | Development and evaluation of FLEMOps – a new Flood Loss Estimation MOdel for the private sector. <i>WIT Transactions on Ecology and the Environment</i> , <b>2008</b> ,   | 1   | 91 |
| 174 | Documentary evidence of past floods in Europe and their utility in flood frequency estimation. <i>Journal of Hydrology</i> , <b>2014</b> , 517, 963-973  | 6   | 88 |
| 173 | Effects of spatial variability on the rainfall runoff process in a small loess catchment. <i>Journal of Hydrology</i> , <b>1998</b> , 212-213, 304-317   | 6   | 82 |
| 172 | A climate-flood link for the lower Mekong River. <i>Hydrology and Earth System Sciences</i> , <b>2012</b> , 16, 1533-1545  | 5.1 | 81 |
| 171 | Mid- to late Holocene flood frequency changes in the northeastern Alps as recorded in varved sediments of Lake Mondsee (Upper Austria). <i>Quaternary Science Reviews</i> , <b>2013</b> , 80, 78-90                | 3.9 | 75 |
| 170 | Changes in the flood hazard in Germany through changing frequency and persistence of circulation patterns. <i>Natural Hazards and Earth System Sciences</i> , <b>2009</b> , 9, 1409-1423                           | 3.9 | 75 |
| 169 | Probabilistic flood hazard mapping: effects of uncertain boundary conditions. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 3127-3140   | 5.5 | 73 |
| 168 | Significance of “high probability/low damage” versus “low probability/high damage” flood events. <i>Natural Hazards and Earth System Sciences</i> , <b>2009</b> , 9, 1033-1046                                     | 3.9 | 73 |
| 167 | Analysis of a detention basin impact on dike failure probabilities and flood risk for a channel-dike-floodplain system along the river Elbe, Germany. <i>Journal of Hydrology</i> , <b>2012</b> , 436-437, 120-131 | 6   | 72 |
| 166 | Multi-objective automatic calibration of hydrodynamic models utilizing inundation maps and gauge data. <i>Hydrology and Earth System Sciences</i> , <b>2011</b> , 15, 1339-1354                                    | 5.5 | 71 |
| 165 | Development of dike fragility curves for piping and micro-instability breach mechanisms. <i>Natural Hazards and Earth System Sciences</i> , <b>2009</b> , 9, 1383-1401   | 3.9 | 69 |
| 164 | Identification of coherent flood regions across Europe by using the longest streamflow records. <i>Journal of Hydrology</i> , <b>2015</b> , 528, 341-360   | 6   | 65 |
| 163 | Large-scale suspended sediment transport and sediment deposition in the Mekong Delta. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 3033-3053   | 5.5 | 65 |
| 162 | Flood precaution of companies and their ability to cope with the flood in August 2002 in Saxony, Germany. <i>Water Resources Research</i> , <b>2007</b> , 43,  | 5.4 | 65 |
| 161 | Continuous, large-scale simulation model for flood risk assessments: proof-of-concept. <i>Journal of Flood Risk Management</i> , <b>2016</b> , 9, 3-21   | 3.1 | 62 |

|     |  |     |    |
|-----|--|-----|----|
| 160 | Floodplain hydrology of the Mekong Delta, Vietnam. <i>Hydrological Processes</i> , <b>2012</b> , 26, 674-686   | 3.3 | 61 |
| 159 | On the relationship between hydro-meteorological patterns and flood types. <i>Journal of Hydrology</i> , <b>2014</b> , 519, 3249-3262  | 6   | 60 |
| 158 | Evaluation of areal precipitation estimates based on downscaled reanalysis and station data by hydrological modelling. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 2415-2434                    | 5.5 | 55 |
| 157 | Improvements on flood alleviation in Germany: lessons learned from the Elbe flood in August 2002. <i>Environmental Management</i> , <b>2006</b> , 38, 717-32   | 3.1 | 55 |
| 156 | Influence of dike breaches on flood frequency estimation. <i>Computers and Geosciences</i> , <b>2009</b> , 35, 907-923   | 4.5 | 53 |
| 155 | Handling uncertainty in bivariate quantile estimation [An application to flood hazard analysis in the Mekong Delta. <i>Journal of Hydrology</i> , <b>2015</b> , 527, 704-717                                       | 6   | 52 |
| 154 | Attribution of regional flood changes based on scaling fingerprints. <i>Water Resources Research</i> , <b>2016</b> , 52, 5322-5340   | 5.4 | 52 |
| 153 | Charting unknown waters [On the role of surprise in flood risk assessment and management. <i>Water Resources Research</i> , <b>2015</b> , 51, 6399-6416  | 5.4 | 52 |
| 152 | The extreme flood in June 2013 in Germany. <i>Houille Blanche</i> , <b>2014</b> , 100, 5-10  | 0.3 | 50 |
| 151 | A consistent set of trans-basin floods in Germany between 1952-2002. <i>Hydrology and Earth System Sciences</i> , <b>2010</b> , 14, 1277-1295  | 5.5 | 50 |
| 150 | Combined fluvial and pluvial urban flood hazard analysis: concept development and application to Can Tho city, Mekong Delta, Vietnam. <i>Natural Hazards and Earth System Sciences</i> , <b>2016</b> , 16, 941-961 | 3.9 | 49 |
| 149 | Has dyke development in the Vietnamese Mekong Delta shifted flood hazard downstream?. <i>Hydrology and Earth System Sciences</i> , <b>2017</b> , 21, 3991-4010   | 5.5 | 48 |
| 148 | Hydraulic model evaluation for large-scale flood risk assessments. <i>Hydrological Processes</i> , <b>2013</b> , 27, 1331-1340   | 3.5 | 47 |
| 147 | Measuring the effect of local water storage changes on in situ gravity observations: Case study of the Geodetic Observatory Wettzell, Germany. <i>Water Resources Research</i> , <b>2010</b> , 46,                 | 5.4 | 46 |
| 146 | Causative classification of river flood events. <i>Wiley Interdisciplinary Reviews: Water</i> , <b>2019</b> , 6, e1353   | 5.7 | 45 |
| 145 | 1-, 2- and 3-dimensional modeling of water movement in the unsaturated soil matrix using a fuzzy approach. <i>Advances in Water Resources</i> , <b>1995</b> , 18, 237-251  | 4.7 | 45 |
| 144 | Links between large-scale circulation patterns and streamflow in Central Europe: A review. <i>Journal of Hydrology</i> , <b>2017</b> , 549, 484-500  | 6   | 44 |
| 143 | Aspects of seasonality and flood generating circulation patterns in a mountainous catchment in south-eastern Germany. <i>Hydrology and Earth System Sciences</i> , <b>2007</b> , 11, 1455-1468                     | 5.5 | 44 |

|     |   |     |    |
|-----|---|-----|----|
| 142 | Reducing local hydrology from high-precision gravity measurements: a lysimeter-based approach. <i>Geophysical Journal International</i> , <b>2010</b> , 183, 178-187  | 2.6 | 42 |
| 141 | Application and validation of FLEMOcs 1a flood-loss estimation model for the commercial sector. <i>Hydrological Sciences Journal</i> , <b>2010</b> , 55, 1315-1324  | 3.5 | 42 |
| 140 | Analysis of changes in climate and river discharge with focus on seasonal runoff predictability in the Aksu River Basin. <i>Environmental Earth Sciences</i> , <b>2015</b> , 73, 501-516                    | 2.9 | 41 |
| 139 | High-Resolution Climate Change Impact Analysis on Medium-Sized River Catchments in Germany: An Ensemble Assessment. <i>Journal of Hydrometeorology</i> , <b>2013</b> , 14, 1175-1193                        | 3.7 | 41 |
| 138 | Probabilistic, Multivariable Flood Loss Modeling on the Mesoscale with BT-FLEMO. <i>Risk Analysis</i> , <b>2017</b> , 37, 774-787   | 3.9 | 39 |
| 137 | Analysis of current trends in climate parameters, river discharge and glaciers in the Aksu River basin (Central Asia). <i>Hydrological Sciences Journal</i> , <b>2015</b> , 60, 566-590                     | 3.5 | 38 |
| 136 | Evolutionary leap in large-scale flood risk assessment needed. <i>Wiley Interdisciplinary Reviews: Water</i> , <b>2018</b> , 5, e1266   | 5.7 | 38 |
| 135 | Exploring the relationship between changes in climate and floods using a model-based analysis. <i>Water Resources Research</i> , <b>2012</b> , 48,  | 5.4 | 38 |
| 134 | Flood trends along the Rhine: the role of river training. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 3871-3884  | 5.5 | 38 |
| 133 | Sedimentation in the floodplains of the Mekong Delta, Vietnam Part II: deposition and erosion. <i>Hydrological Processes</i> , <b>2014</b> , 28, 3145-3160  | 3.3 | 37 |
| 132 | Total water storage dynamics in response to climate variability and extremes: Inference from long-term terrestrial gravity measurement. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a |     | 37 |
| 131 | Joint Trends in Flood Magnitudes and Spatial Extents Across Europe.. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2020GL087464  | 4.9 | 36 |
| 130 | Hierarchical Bayesian clustering for nonstationary flood frequency analysis: Application to trends of annual maximum flow in Germany. <i>Water Resources Research</i> , <b>2015</b> , 51, 6586-6601         | 5.4 | 34 |
| 129 | Multi-scale event synchronization analysis for unravelling climate processes: a wavelet-based approach. <i>Nonlinear Processes in Geophysics</i> , <b>2017</b> , 24, 599-611                                | 2.9 | 33 |
| 128 | Storage-discharge relationships at different catchment scales based on local high-precision gravimetry. <i>Hydrological Processes</i> , <b>2014</b> , 28, 1465-1475   | 3.3 | 33 |
| 127 | Temporal clustering of floods in Germany: Do flood-rich and flood-poor periods exist?. <i>Journal of Hydrology</i> , <b>2016</b> , 541, 824-838   | 6   | 32 |
| 126 | Extreme Coastal Water Levels Exacerbate Fluvial Flood Hazards in Northwestern Europe. <i>Scientific Reports</i> , <b>2019</b> , 9, 13165  | 4.9 | 30 |
| 125 | Seasonal forecasting of hydrological drought in the Limpopo Basin: a comparison of statistical methods. <i>Hydrology and Earth System Sciences</i> , <b>2017</b> , 21, 1611-1629                            | 5.5 | 30 |

|     |   |      |    |
|-----|---|------|----|
| 124 | What controls the stable isotope composition of precipitation in the Mekong Delta? A model-based statistical approach. <i>Hydrology and Earth System Sciences</i> , <b>2018</b> , 22, 1239-1262           | 5.5  | 30 |
| 123 | Impact Forecasting to Support Emergency Management of Natural Hazards. <i>Reviews of Geophysics</i> , <b>2020</b> , 58, e2020RG000704   | 23.1 | 29 |
| 122 | Assessing the probability of large-scale flood loss events: a case study for the river Rhine, Germany. <i>Journal of Flood Risk Management</i> , <b>2015</b> , 8, 247-262                                 | 3.1  | 28 |
| 121 | What are the hydro-meteorological controls on flood characteristics?. <i>Journal of Hydrology</i> , <b>2017</b> , 545, 310-326  | 6    | 27 |
| 120 | Network-based identification and characterization of teleconnections on different scales. <i>Scientific Reports</i> , <b>2019</b> , 9, 8808   | 4.9  | 27 |
| 119 | Unravelling the spatial diversity of Indian precipitation teleconnections via a non-linear multi-scale approach. <i>Nonlinear Processes in Geophysics</i> , <b>2019</b> , 26, 251-266                     | 2.9  | 27 |
| 118 | Spatial and temporal variations of actual soil water repellency and their influence on surface runoff. <i>Hydrological Processes</i> , <b>2008</b> , 22, 1976-1984  | 3.3  | 27 |
| 117 | Quantifying the roles of single stations within homogeneous regions using complex network analysis. <i>Journal of Hydrology</i> , <b>2018</b> , 563, 802-810  | 6    | 27 |
| 116 | Projecting flood hazard under climate change: an alternative approach to model chains. <i>Natural Hazards and Earth System Sciences</i> , <b>2014</b> , 14, 1579-1589                                     | 3.9  | 26 |
| 115 | Flood-initiating catchment conditions: a spatio-temporal analysis of large-scale soil moisture patterns in the Elbe River basin. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 1401-1414 | 5.5  | 26 |
| 114 | The benefits of gravimeter observations for modelling water storage changes at the field scale. <i>Hydrology and Earth System Sciences</i> , <b>2010</b> , 14, 1715-1730                                  | 5.5  | 26 |
| 113 | Causes, impacts and patterns of disastrous river floods. <i>Nature Reviews Earth &amp; Environment</i> , <b>2021</b> , 2, 592-609   | 30.2 | 26 |
| 112 | Flood risk analysis: uncertainties and validation. <i>Osterreichische Wasser- Und Abfallwirtschaft</i> , <b>2008</b> , 60, 89-94  | 0.4  | 25 |
| 111 | Climate influences on flood probabilities across Europe. <i>Hydrology and Earth System Sciences</i> , <b>2019</b> , 23, 1305-1322   | 5.5  | 24 |
| 110 | Process-based interpretation of conceptual hydrological model performance using a multinational catchment set. <i>Water Resources Research</i> , <b>2017</b> , 53, 7247-7268                              | 5.4  | 24 |
| 109 | Snow-cover reconstruction methodology for mountainous regions based on historic in situ observations and recent remote sensing data. <i>Cryosphere</i> , <b>2015</b> , 9, 451-463                         | 5.5  | 24 |
| 108 | Evaluation of remotely sensed snow cover product in Central Asia <b>2013</b> , 44, 506-522  |      | 24 |
| 107 | Sedimentation in the floodplains of the Mekong Delta, Vietnam. Part I: suspended sediment dynamics. <i>Hydrological Processes</i> , <b>2014</b> , 28, 3132-3144   | 3.3  | 23 |

|     |  |      |    |
|-----|--|------|----|
| 106 | The Value of Empirical Data for Estimating the Parameters of a Sociohydrological Flood Risk Model. <i>Water Resources Research</i> , <b>2019</b> , 55, 1312-1336   | 5.4  | 22 |
| 105 | Probabilistic Models Significantly Reduce Uncertainty in Hurricane Harvey Pluvial Flood Loss Estimates. <i>Earth's Future</i> , <b>2019</b> , 7, 384-394   | 7.9  | 22 |
| 104 | Spatial coherence of flood-rich and flood-poor periods across Germany. <i>Journal of Hydrology</i> , <b>2018</b> , 559, 813-826  | 6    | 22 |
| 103 | A European Flood Database: facilitating comprehensive flood research beyond administrative boundaries. <i>Proceedings of the International Association of Hydrological Sciences</i> , 370, 89-95                       |      | 22 |
| 102 | Tree-based flood damage modeling of companies: Damage processes and model performance. <i>Water Resources Research</i> , <b>2017</b> , 53, 6050-6068   | 5.4  | 21 |
| 101 | Large-scale, seasonal flood risk analysis for agricultural crops in Germany. <i>Environmental Earth Sciences</i> , <b>2016</b> , 75, 1   | 2.9  | 21 |
| 100 | Future projections of flood dynamics in the Vietnamese Mekong Delta. <i>Science of the Total Environment</i> , <b>2020</b> , 742, 140596   | 10.2 | 20 |
| 99  | MODSNOW-Tool: an operational tool for daily snow cover monitoring using MODIS data. <i>Environmental Earth Sciences</i> , <b>2016</b> , 75, 1  | 2.9  | 20 |
| 98  | A statistically based seasonal precipitation forecast model with automatic predictor selection and its application to central and south Asia. <i>Hydrology and Earth System Sciences</i> , <b>2016</b> , 20, 4605-4623 | 5.5  | 20 |
| 97  | A continuous modelling approach for design flood estimation on sub-daily time scale. <i>Hydrological Sciences Journal</i> , <b>2019</b> , 64, 539-554  | 3.5  | 19 |
| 96  | Optimal design of hydrometric station networks based on complex network analysis. <i>Hydrology and Earth System Sciences</i> , <b>2020</b> , 24, 2235-2251   | 5.5  | 19 |
| 95  | Deriving probabilistic regional envelope curves with two pooling methods. <i>Journal of Hydrology</i> , <b>2010</b> , 380, 14-26   | 6    | 19 |
| 94  | Analysis of the runoff response of an alpine catchment at different scales. <i>Hydrology and Earth System Sciences</i> , <b>2007</b> , 11, 1441-1454   | 5.5  | 19 |
| 93  | How do changes along the risk chain affect flood risk?. <i>Natural Hazards and Earth System Sciences</i> , <b>2018</b> , 18, 3089-3108   | 3.9  | 19 |
| 92  | Variability of the Cold Season Climate in Central Asia. Part I: Weather Types and Their Tropical and Extratropical Drivers. <i>Journal of Climate</i> , <b>2018</b> , 31, 7185-7207                                    | 4.4  | 19 |
| 91  | Integrated assessment of short-term direct and indirect economic flood impacts including uncertainty quantification. <i>PLoS ONE</i> , <b>2019</b> , 14, e0212932  | 3.7  | 18 |
| 90  | Detection and Attribution of Changes in Flood Hazard and Risk <b>2012</b> , 435-458  |      | 18 |
| 89  | High spatial and temporal organization of changes in precipitation over Germany for 1951-2006. <i>International Journal of Climatology</i> , <b>2016</b> , 36, 2582-2597   | 3.5  | 18 |



|    |   |     |    |
|----|---|-----|----|
| 88 | The impact of the uncertainty of dike breach development time on flood hazard. <i>Physics and Chemistry of the Earth</i> , <b>2011</b> , 36, 319-323  | 3   | 16 |
| 87 | Constraining hydrological model parameters using water isotopic compositions in a glacierized basin, Central Asia. <i>Journal of Hydrology</i> , <b>2019</b> , 571, 332-348   | 6   | 15 |
| 86 | The role of spatial dependence for large-scale flood risk estimation. <i>Natural Hazards and Earth System Sciences</i> , <b>2020</b> , 20, 967-979  | 3.9 | 15 |
| 85 | Trends in Compound Flooding in Northwestern Europe During 1901-2014. <i>Geophysical Research Letters</i> , <b>2019</b> , 46, 10810-10820  | 4.9 | 15 |
| 84 | Sedimentation monitoring including uncertainty analysis in complex floodplains: a case study in the Mekong Delta. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 3039-3057                                | 5.5 | 15 |
| 83 | Different methods for modelling the areal infiltration of a grass field under heavy precipitation. <i>Hydrological Processes</i> , <b>2002</b> , 16, 1383-1402  | 3.3 | 15 |
| 82 | Floods and climate: emerging perspectives for flood risk assessment and management  |     | 15 |
| 81 | The Value of Hydrograph Partitioning Curves for Calibrating Hydrological Models in Glacierized Basins. <i>Water Resources Research</i> , <b>2018</b> , 54, 2336-2361  | 5.4 | 13 |
| 80 | An event synchronization method to link heavy rainfall events and large-scale atmospheric circulation features. <i>International Journal of Climatology</i> , <b>2018</b> , 38, 1421-1437                                 | 3.5 | 13 |
| 79 | Can local climate variability be explained by weather patterns? A multi-station evaluation for the Rhine basin. <i>Hydrology and Earth System Sciences</i> , <b>2016</b> , 20, 4283-4306                                  | 5.5 | 13 |
| 78 | Quantifying Flood Vulnerability Reduction via Private Precaution. <i>Earth's Future</i> , <b>2019</b> , 7, 235-249  | 7.9 | 13 |
| 77 | Hydrological and sedimentological processes of flood layer formation in Lake Mondsee. <i>Depositional Record</i> , <b>2015</b> , 1, 18-37   | 2   | 12 |
| 76 | Towards risk-based flood management in highly productive paddy rice cultivation – Concept development and application to the Mekong Delta. <i>Natural Hazards and Earth System Sciences</i> , <b>2018</b> , 18, 2859-2876 | 3.9 | 12 |
| 75 | Understanding flood regime changes in Europe: a state of the art assessment   |     | 11 |
| 74 | Projected Changes in Compound Flood Hazard From Riverine and Coastal Floods in Northwestern Europe. <i>Earth's Future</i> , <b>2020</b> , 8, e2020EF001752  | 7.9 | 11 |
| 73 | Hierarchical Bayesian Approach for Modeling Spatiotemporal Variability in Flood Damage Processes. <i>Water Resources Research</i> , <b>2019</b> , 55, 8223-8237   | 5.4 | 10 |
| 72 | Variability of the Cold Season Climate in Central Asia. Part II: Hydroclimatic Predictability. <i>Journal of Climate</i> , <b>2019</b> , 32, 6015-6033  | 4.4 | 10 |
| 71 | In Search of Determinism-Sensitive Region to Avoid Artefacts in Recurrence Plots. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2018</b> , 28, 1850007                   | 2   | 10 |

|    |  |     |    |
|----|--|-----|----|
| 70 | Introducing empirical and probabilistic regional envelope curves into a mixed bounded distribution function. <i>Hydrology and Earth System Sciences</i> , <b>2010</b> , 14, 2465-2478                                | 5.5 | 10 |
| 69 | Possibilities and Limitations of Interdisciplinary, User-oriented Research: Experiences from the German Research Network Natural Disasters. <i>Natural Hazards</i> , <b>2006</b> , 38, 3-20                          | 3   | 10 |
| 68 | Do small and large floods have the same drivers of change? A regional attribution analysis in Europe. <i>Hydrology and Earth System Sciences</i> , <b>2021</b> , 25, 1347-1364                                       | 5.5 | 10 |
| 67 | Monsoon Variability and the Mekong Flood Regime. <i>Springer Environmental Science and Engineering</i> , <b>2012</b> , 233-244   |     | 9  |
| 66 | Assessing Hydrograph Similarity and Rare Runoff Dynamics by Cross Recurrence Plots. <i>Water Resources Research</i> , <b>2019</b> , 55, 4704   | 5.4 | 8  |
| 65 | Do Changing Weather Types Explain Observed Climatic Trends in the Rhine Basin? An Analysis of Within- and Between-Type Changes. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2018</b> , 123, 1562-1584 | 4.4 | 8  |
| 64 | Effects of intersite dependence of nested catchment structures on probabilistic regional envelope curves. <i>Hydrology and Earth System Sciences</i> , <b>2009</b> , 13, 1699-1712                                   | 5.5 | 8  |
| 63 | Seamless Estimation of Hydrometeorological Risk Across Spatial Scales. <i>Earth's Future</i> , <b>2019</b> , 7, 574-581  | 7.9 | 7  |
| 62 | Data expansion: the potential of grey literature for understanding floods. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 895-911  | 5.5 | 7  |
| 61 | What made the June 2013 flood in Germany an exceptional event? A hydro-meteorological evaluation   |     | 7  |
| 60 | Evaluation of areal precipitation estimates based on downscaled reanalysis and station data by hydrological modelling  |     | 7  |
| 59 | The role of flood wave superposition in the severity of large floods. <i>Hydrology and Earth System Sciences</i> , <b>2020</b> , 24, 1633-1648   | 5.5 | 7  |
| 58 | Total water storage dynamics derived from tree-ring records and terrestrial gravity observations. <i>Journal of Hydrology</i> , <b>2015</b> , 529, 640-649   | 6   | 6  |
| 57 | Risikomanagement extremer Hochwasserereignisse. <i>Environmental Sciences Europe</i> , <b>2005</b> , 17, 191   |     | 6  |
| 56 | Challenges for Bayesian network learning in a flood damage assessment application <b>2014</b> , 3123-3130  |     | 6  |
| 55 | Comparing Bayesian and traditional end-member mixing approaches for hydrograph separation in a glacierized basin. <i>Hydrology and Earth System Sciences</i> , <b>2020</b> , 24, 3289-3309                           | 5.5 | 6  |
| 54 | A quality assessment framework for natural hazard event documentation: application to trans-basin flood reports in Germany. <i>Natural Hazards and Earth System Sciences</i> , <b>2014</b> , 14, 189-208             | 3.9 | 6  |
| 53 | Flood Risk from a Holistic Perspective [Observed Changes in Germany <b>2019</b> , 212-237  |     | 6  |

|    |   |      |   |
|----|---|------|---|
| 52 | A probabilistic approach to estimating residential losses from different flood types. <i>Natural Hazards</i> , <b>2021</b> , 105, 2569-2601   | 3    | 6 |
| 51 | Preface: climate change proof flood risk management. <i>Mitigation and Adaptation Strategies for Global Change</i> , <b>2015</b> , 20, 837-843  | 3.9  | 5 |
| 50 | Aspects of seasonality and flood generating circulation patterns in a mountainous catchment in south-eastern Germany  |      | 5 |
| 49 | Projecting flood hazard under climate change: an alternative approach to model chains   |      | 5 |
| 48 | Inter-Comparison of Gauge-Based Gridded Data, Reanalysis and Satellite Precipitation Product with an Emphasis on Hydrological Modeling. <i>Atmosphere</i> , <b>2020</b> , 11, 1252  | 2.7  | 5 |
| 47 | Tracing the value of data for flood loss modelling. <i>E3S Web of Conferences</i> , <b>2016</b> , 7, 05005  | 0.5  | 5 |
| 46 | Biases in national and continental flood risk assessments by ignoring spatial dependence. <i>Scientific Reports</i> , <b>2020</b> , 10, 19387   | 4.9  | 4 |
| 45 | Flood precaution and coping with floods of companies in Germany. <i>WIT Transactions on Ecology and the Environment</i> , <b>2008</b> ,   | 1    | 4 |
| 44 | The benefits of gravimeter observations for modelling water storage changes at the field scale  |      | 4 |
| 43 | A climate-flood link for the lower Mekong River   |      | 4 |
| 42 | Quantification of Socio-Economic Flood Risks <b>2011</b> , 229-247  |      | 4 |
| 41 | Bayesian Data-Driven approach enhances synthetic flood loss models. <i>Environmental Modelling and Software</i> , <b>2020</b> , 132, 104798   | 5.2  | 4 |
| 40 | Inventory of dams in Germany. <i>Earth System Science Data</i> , <b>2021</b> , 13, 731-740  | 10.5 | 4 |
| 39 | Ranking and characterization of precipitation extremes for the past 113 years for Indian western Himalayas. <i>International Journal of Climatology</i> ,   | 3.5  | 4 |
| 38 | Comparative analysis of scalar upper tail indicators. <i>Hydrological Sciences Journal</i> , <b>2020</b> , 65, 1625-1639  | 3.5  | 3 |
| 37 | Synchronization and Delay Between Circulation Patterns and High Streamflow Events in Germany. <i>Water Resources Research</i> , <b>2020</b> , 56, e2019WR025598   | 5.4  | 3 |
| 36 | Reply to Comment on "Significance of "high probability/low damage" versus "low probability/high damage" flood events" by C. M. Rheinberger (2009). <i>Natural Hazards and Earth System Sciences</i> , <b>2010</b> , 10, 3-5 | 3.9  | 3 |
| 35 | Development of a simplified process oriented rainfall runoff model. <i>Physics and Chemistry of the Earth</i> , <b>1999</b> , 24, 307-311   |      | 3 |

|    |  |     |   |
|----|--|-----|---|
| 34 | Large-scale quantification of suspended sediment transport and deposition in the Mekong Delta  |     | 3 |
| 33 | HESS Opinions &quot;More efforts and scientific rigour are needed to attribute trends in flood time series&quot;;  |     | 3 |
| 32 | Flood hazard in the Mekong Delta – probabilistic, bivariate, and non-stationary analysis with a short-termed future perspective  |     | 3 |
| 31 | Hochwasser und Sturzfluten an Flüssen in Deutschland <b>2017</b> , 87-101  |     | 3 |
| 30 | Knowing What to Do Substantially Improves the Effectiveness of Flood Early Warning. <i>Bulletin of the American Meteorological Society</i> , <b>2021</b> , 102, E1450-E1463                  | 6.1 | 3 |
| 29 | LESSONS LEARNED FROM THE ELBE RIVER FLOODS IN AUGUST 2002 - WITH A SPECIAL FOCUS ON FLOOD WARNING <b>2006</b> , 69-80  |     | 3 |
| 28 | Seasonal forecasting of hydrological drought in the Limpopo basin: A comparison of statistical methods.  |     | 2 |
| 27 | Optimal Design of Hydrometric Station Networks Based on Complex Network Analysis   |     | 2 |
| 26 | Flood trends and variability in the Mekong river   |     | 2 |
| 25 | Effects of rating-curve uncertainty on probabilistic flood mapping   |     | 2 |
| 24 | A quality assessment framework for natural hazard event documentations: application to trans-basin flood reports in Germany  |     | 2 |
| 23 | Combined fluvial and pluvial urban flood hazard analysis: method development and application to Can Tho City, Mekong Delta, Vietnam  |     | 2 |
| 22 | Unraveling the spatial diversity of Indian precipitation teleconnections via nonlinear multi-scale approach  |     | 2 |
| 21 | Up-scaling of multi-variable flood loss models from objects to land use units at the meso-scale. <i>Proceedings of the International Association of Hydrological Sciences</i> , 373, 179-182 |     | 2 |
| 20 | Trends der Hochwassergefährdung in Deutschland (1951 bis 2002) und Konsequenzen für die Bemessung. <i>Wasserwirtschaft</i> , <b>2008</b> , 98, 24-28   | 0.3 | 2 |
| 19 | Comprehensive evaluation of an improved large-scale multi-site weather generator for Germany. <i>International Journal of Climatology</i> , <b>2021</b> , 41, 4933-4956                      | 3.5 | 2 |
| 18 | Large-scale flood risk assessment using a coupled model chain. <i>E3S Web of Conferences</i> , <b>2016</b> , 7, 11005  | 0.5 | 2 |
| 17 | Groundwater dynamics in the Vietnamese Mekong Delta: Trends, memory effects, and response times. <i>Journal of Hydrology: Regional Studies</i> , <b>2021</b> , 33, 100746                    | 3.6 | 2 |

|    |   |     |   |
|----|---|-----|---|
| 16 | Identification of groundwater mean transit times of precipitation and riverbank infiltration by two-component lumped parameter models. <i>Hydrological Processes</i> , <b>2019</b> , 33, 3098-3118                        | 3.3 | 1 |
| 15 | What drives flood trends along the Rhine River: climate or river training?  |     | 1 |
| 14 | Novel Quantification Method for Hydrograph Similarity. <i>Springer Water</i> , <b>2020</b> , 727-734  | 0.3 | 1 |
| 13 | Klimawandel und Wasserhaushalt. <i>Acatech-Studie</i> , <b>2012</b> , 24-90   |     | 1 |
| 12 | Data expansion: the potential of grey literature for understanding floods   |     | 1 |
| 11 | Flood-initiating catchment conditions: a spatio-temporal analysis of large-scale soil moisture patterns in the Elbe river basin   |     | 1 |
| 10 | Sedimentation monitoring including uncertainty analysis in complex floodplains: a case study in the Mekong Delta  |     | 1 |
| 9  | Recurrence analysis of extreme event-like data. <i>Nonlinear Processes in Geophysics</i> , <b>2021</b> , 28, 213-229  | 2.9 | 1 |
| 8  | Process-Based Flood Risk Assessment for Germany. <i>Earth's Future</i> , <b>2021</b> , 9, e2021EF002259   | 7.9 | 1 |
| 7  | Comparative evaluation of two types of stochastic weather generators for synthetic precipitation in the Rhine basin. <i>Journal of Hydrology</i> , <b>2021</b> , 601, 126544  | 6   | 1 |
| 6  | From Precipitation to Damage. <i>Geophysical Monograph Series</i> , <b>2018</b> , 169-183   | 1.1 | 0 |
| 5  | Reconstructing Paleoflood Occurrence and Magnitude from Lake Sediments. <i>Quaternary</i> , <b>2022</b> , 5, 9  | 2.2 | 0 |
| 4  | A nonlinear hybrid model to assess the impacts of climate variability and human activities on runoff at different time scales. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2021</b> , 35, 1917-1929 | 3.5 | 0 |
| 3  | Risk Estimates for Germany. <i>Geotechnical, Geological and Earthquake Engineering</i> , <b>2009</b> , 187-196  | 0.2 |   |
| 2  | Zwei Jahre RIMAX Rückblick und Ausblick. <i>Environmental Sciences Europe</i> , <b>2007</b> , 19, 69-70   |     |   |
| 1  | Estimating parameter values of a socio-hydrological flood model. <i>Proceedings of the International Association of Hydrological Sciences</i> , <b>379</b> , 193-198  |     |   |