# Lutz Breuer

List of Publications by Year
in descending order



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|---|---|---|---|
| 184 papers | 6,993 citations | 53660 45 h-index | 85405 71 g-index |
| 228 all docs | 228 docs citations | 228 times ranked | 8577 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Plant parameter values for models in temperate climates. Ecological Modelling, 2003, 169, 237-293. | 1.2 | 307 |
| 2 | Title is missing!. Nutrient Cycling in Agroecosystems, 1997, 48, 79-90. | 1.1 | 209 |
| 3 | Assessing the impact of land use change on hydrology by ensemble modeling (LUCHEM). I: Model intercomparison with current land use. Advances in Water Resources, 2009, 32, 129-146. | 1.7 | 177 |
| 4 | State-of-the-art global models underestimate impacts from climate extremes. Nature Communications, 2019, 10, 1005. | 5.8 | 168 |
| 5 | N2O emission from tropical forest soils of Australia. Journal of Geophysical Research, 2000, 105, 26353-26367. | 3.3 | 163 |
| 6 | Large scale prediction of groundwater nitrate concentrations from spatial data using machine learning. Science of the Total Environment, 2019, 668, 1317-1327. | 3.9 | 146 |
| 7 | Validation and application of a cryogenic vacuum extraction system for soil and plant water extraction for isotope analysis. Journal of Sensors and Sensor Systems, 2013, 2, 179-193. | 0.6 | 140 |
| 8 | Parameter uncertainty and the significance of simulated land use change effects. Journal of Hydrology, 2003, 273, 164-176. | 2.3 | 134 |
| 9 | Assessing the impact of land use change on hydrology by ensemble modelling (LUCHEM) II: Ensemble combinations and predictions. Advances in Water Resources, 2009, 32, 147-158. | 1.7 | 128 |
| 10 | Critical issues with cryogenic extraction of soil water for stable isotope analysis. Ecohydrology, 2016, 9, 1-5. | 1.1 | 127 |
| 11 | LandscapeDNDC: a process model for simulation of biosphereâ€“atmosphereâ€“hydrosphere exchange processes at site and regional scale. Landscape Ecology, 2013, 28, 615-636. | 1.9 | 126 |
| 12 | Temperature and Moisture Effects on Nitrification Rates in Tropical Rainâ€Forest Soils. Soil Science Society of America Journal, 2002, 66, 834-844. | 1.2 | 123 |
| 13 | SPOTting Model Parameters Using a Ready-Made Python Package. PLoS ONE, 2015, 10, e0145180. | 1.1 | 118 |
| 14 | How many tracers do we need for end member mixing analysis (EMMA)? A sensitivity analysis. Water Resources Research, 2011, 47, . | 1.7 | 115 |
| 15 | Sources of uncertainty in hydrological climate impact assessment: a cross-scale study. Environmental Research Letters, 2018, 13, 015006. | 2.2 | 109 |
| 16 | Exchange of trace gases between soils and the atmosphere in Scots pine forest ecosystems of the northeastern German lowlands. Forest Ecology and Management, 2002, 167, 123-134. | 1.4 | 107 |
| 17 | Groundwater recharge rates and surface runoff response to land use and land cover changes in semi-arid environments. Ecological Processes, 2016, 5, . | 1.6 | 107 |
| 18 | A comparison of changes in river runoff from multiple global and catchment-scale hydrological models under global warming scenarios of 1ÂÂ°C, 2ÂÂ°C and 3ÂÂ°C. Climatic Change, 2017, 141, 577-595. | 1.7 | 104 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Temporal stability of soil moisture in various semi-arid steppe ecosystems and its application in remote sensing. Journal of Hydrology, 2008, 359, 16-29. | 2.3 | 101 |
| 20 | Citizen science in hydrological monitoring and ecosystem services management: State of the art and future prospects. Science of the Total Environment, 2019, 693, 133531. | 3.9 | 94 |
| 21 | Biodegradability of a polyacrylate superabsorbent in agricultural soil. Environmental Science and Pollution Research, 2014, 21, 9453-9460. | 2.7 | 93 |
| 22 | Inter-laboratory comparison of cryogenic water extraction systems for stable isotope analysis of soil water. Hydrology and Earth System Sciences, 2018, 22, 3619-3637. | 1.9 | 92 |
| 23 | Identifying controls of the rainfallâ€"runoff response of small catchments in the tropical Andes (Ecuador). Journal of Hydrology, 2011, 407, 164-174. | 2.3 | 90 |
| 24 | Afforestation or intense pasturing improve the ecological and economic value of abandoned tropical farmlands. Nature Communications, 2014, 5, 5612. | 5.8 | 89 |
| 25 | Assessing the impact of land use change on hydrology by ensemble modeling (LUCHEM) III: Scenario analysis. Advances in Water Resources, 2009, 32, 159-170. | 1.7 | 87 |
| 26 | Impact of elevation and weather patterns on the isotopic composition of precipitation in a tropical montane rainforest. Hydrology and Earth System Sciences, 2013, 17, 409-419. | 1.9 | 86 |
| 27 | Analysing the effects of soil properties changes associated with land use changes on the simulated water balance: A comparison of three hydrological catchment models for scenario analysis. Ecological Modelling, 2007, 209, 29-40. | 1.2 | 85 |
| 28 | Impact of a conversion from cropland to grassland on C and N storage and related soil properties: Analysis of a 60-year chronosequence. Geoderma, 2006, 133, 6-18. | 2.3 | 80 |
| 29 | Comparing molecular composition of dissolved organic matter in soil and stream water: Influence of land use and chemical characteristics. Science of the Total Environment, 2016, 571, 142-152. | 3.9 | 79 |
| 30 | Compositional diversity of rehabilitated tropical lands supports multiple ecosystem services and buffers uncertainties. Nature Communications, 2016, 7, 11877. | 5.8 | 77 |
| 31 | CMF: A Hydrological Programming Language Extension For Integrated Catchment Models. Environmental Modelling and Software, 2011, 26, 828-830. | 1.9 | 73 |
| 32 | Land use and climate control the spatial distribution of soil types in the grasslands of Inner Mongolia. Journal of Arid Environments, 2013, 88, 194-205. | 1.2 | 66 |
| 33 | Citizen science pioneers in Kenya â€" A crowdsourced approach for hydrological monitoring. Science of the Total Environment, 2018, 631-632, 1590-1599. | 3.9 | 65 |
| 34 | Degradation kinetics of biochar from pyrolysis and hydrothermal carbonization in temperate soils. Plant and Soil, 2013, 372, 375-387. | 1.8 | 60 |
| 35 | Accuracy and congruency of three different digital land-use maps. Landscape and Urban Planning, 2006, 78, 289-299. | 3.4 | 57 |
| 36 | Propagation of forcing and model uncertainties on to hydrological drought characteristics in a multi-model century-long experiment in large river basins. Climatic Change, 2017, 141, 435-449. | 1.7 | 57 |

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| 37 | Land use affects total dissolved nitrogen and nitrate concentrations in tropical montane streams in Kenya. Science of the Total Environment, 2017, 603-604, 519-532. | 3.9 | 56 |
| 38 | Integration of a detailed biogeochemical model into SWAT for improved nitrogen predictionsâ€"Model development, sensitivity, and GLUE analysis. Ecological Modelling, 2007, 203, 215-228. | 1.2 | 55 |
| 39 | Recent insights on uncertainties present in integrated catchment water quality modelling. Water Research, 2019, 150, 368-379. | 5.3 | 54 |
| 40 | Nation-wide estimation of groundwater redox conditions and nitrate concentrations through machine learning. Environmental Research Letters, 2020, 15, 064004. | 2.2 | 52 |
| 41 | Understanding uncertainties when inferring mean transit times of water trough tracer-based lumped-parameter models in Andean tropical montane cloud forest catchments. Hydrology and Earth System Sciences, 2014, 18, 1503-1523. | 1.9 | 51 |
| 42 | Deforestation and Benthic Indicators: How Much Vegetation Cover Is Needed to Sustain Healthy Andean Streams?. PLoS ONE, 2014, 9, e105869. | 1.1 | 50 |
| 43 | Assessing the impact of land use change on hydrology by ensemble modelling (LUCHEM) IV: Model sensitivity to data aggregation and spatial (re-)distribution. Advances in Water Resources, 2009, 32, 171-192. | 1.7 | 49 |
| 44 | Temporal dynamics in dominant runoff sources and flow paths in the <scp>A</scp>ndean <scp>P</scp>Ã¡ramo. Water Resources Research, 2017, 53, 5998-6017. | 1.7 | 49 |
| 45 | Insights into the water mean transit time in a high-elevation tropical ecosystem. Hydrology and Earth System Sciences, 2016, 20, 2987-3004. | 1.9 | 48 |
| 46 | Moisture transport and seasonal variations in the stable isotopic composition of rainfall in <scp>Central American</scp> and <scp>Andean PÃ¡ramo</scp> during <scp>El NiÃ±o</scp> conditions (2015â€"2016). Hydrological Processes, 2019, 33, 1802-1817. | 1.1 | 48 |
| 47 | Nitrogen processes in aquatic ecosystems. , 2011, , 126-146. | | 46 |
| 48 | Using hydrological and climatic catchment clusters to explore drivers of catchment behavior. Hydrology and Earth System Sciences, 2020, 24, 1081-1100. | 1.9 | 46 |
| 49 | Model intercomparison to explore catchment functioning: Results from a remote montane tropical rainforest. Ecological Modelling, 2012, 239, 3-13. | 1.2 | 42 |
| 50 | Monte Carlo-based calibration and uncertainty analysis of a coupled plant growth and hydrological model. Biogeosciences, 2014, 11, 2069-2082. | 1.3 | 42 |
| 51 | Conversion of natural forest results in a significant degradation of soil hydraulic properties in the highlands of Kenya. Soil and Tillage Research, 2018, 176, 36-44. | 2.6 | 41 |
| 52 | Current concepts in nitrogen dynamics for mesoscale catchments. Hydrological Sciences Journal, 2008, 53, 1059-1074. | 1.2 | 39 |
| 53 | Current economic obstacles to biochar use in agriculture and climate change mitigation. Carbon Management, 2016, 7, 183-190. | 1.2 | 39 |
| 54 | Identification of geographic runoff sources in a data sparse region: hydrological processes and the limitations of tracerâ€based approaches. Hydrological Processes, 2010, 24, 2313-2327. | 1.1 | 37 |

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| 55 | Accounting for multiple ecosystem services in a simulation of landâ€use decisions: Does it reduce tropical deforestation?. Global Change Biology, 2020, 26, 2403-2420. | 4.2 | 37 |
| 56 | An institutional analysis of EPD programs and a global PCR registry. International Journal of Life Cycle Assessment, 2014, 19, 786-795. | 2.2 | 36 |
| 57 | The use of agri-environmental measures to address environmental pressures in Germany: Spatial mismatches and options for improvement. Land Use Policy, 2019, 84, 347-362. | 2.5 | 36 |
| 58 | Changing climate - Changing livelihood: Smallholder's perceptions and adaption strategies. Journal of Environmental Management, 2020, 259, 109702. | 3.8 | 35 |
| 59 | Stable water isotope tracing through hydrological models for disentangling runoff generation processes at the hillslope scale. Hydrology and Earth System Sciences, 2014, 18, 4113-4127. | 1.9 | 33 |
| 60 | HydroCrowd: a citizen science snapshot to assess the spatial control of nitrogen solutes in surface waters. Scientific Reports, 2015, 5, 16503. | 1.6 | 33 |
| 61 | Exploring water cycle dynamics by sampling multiple stable water isotope pools in a developed landscape in Germany. Hydrology and Earth System Sciences, 2016, 20, 3873-3894. | 1.9 | 33 |
| 62 | Spatially distributed hydro-chemical data with temporally high-resolution is needed to adequately assess the hydrological functioning of headwater catchments. Science of the Total Environment, 2019, 651, 1613-1626. | 3.9 | 33 |
| 63 | Sensitivity of simulated hydrological fluxes towards changes in soil properties in response to land use change. Physics and Chemistry of the Earth, 2004, 29, 749-758. | 1.2 | 32 |
| 64 | Preliminary evaluation of the runoff processes in a remote montane cloud forest basin using Mixing Model Analysis and Mean Transit Time. Hydrological Processes, 2012, 26, 3896-3910. | 1.1 | 32 |
| 65 | Shifts in leaf litter breakdown along a forestâ€“pastureâ€“urban gradient in Andean streams. Ecology and Evolution, 2016, 6, 4849-4865. | 0.8 | 32 |
| 66 | Climate Vulnerability in Rainfed Farming: Analysis from Indian Watersheds. Sustainability, 2018, 10, 3357. | 1.6 | 32 |
| 67 | Evaluation of evapotranspiration methods for model validation in a semi-arid watershed in northern China. Advances in Geosciences, 0, 11, 37-42. | 12.0 | 32 |
| 68 | Spatial variability of topsoils and vegetation in a grazed steppe ecosystem in Inner Mongolia (PR) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2 | 1.1 | 30 |
| 69 | Assessment of hydrological pathways in East African montane catchments under different land use. Hydrology and Earth System Sciences, 2018, 22, 4981-5000. | 1.9 | 30 |
| 70 | Monte Carlo assessment of uncertainty in the simulated hydrological response to land use change. Environmental Modeling and Assessment, 2006, 11, 209-218. | 1.2 | 29 |
| 71 | Water Resources Management Strategies for Irrigated Agriculture in the Indus Basin of Pakistan. Water (Switzerland), 2020, 12, 1429. | 1.2 | 29 |
| 72 | Quantification of plant water uptake by water stable isotopes in rice paddy systems. Plant and Soil, 2018, 429, 281-302. | 1.8 | 28 |

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| 73 | Effect of land cover and hydroâ€meteorological controls on soil water DOC concentrations in a highâ€elevation tropical environment. Hydrological Processes, 2018, 32, 2624-2635. | 1.1 | 28 |
| 74 | New Seasonal Shift in In-Stream Diurnal Nitrate Cycles Identified by Mining High-Frequency Data. PLoS ONE, 2016, 11, e0153138. | 1.1 | 28 |
| 75 | Evaluating Today's Landscape Multifunctionality and Providing an Alternative Future: A Normative Scenario Approach. Ecology and Society, 2010, 15, . | 1.0 | 27 |
| 76 | Using Highâ€Resolution Data to Assess Land Use Impact on Nitrate Dynamics in East African Tropical Montane Catchments. Water Resources Research, 2018, 54, 1812-1830. | 1.7 | 27 |
| 77 | Water source characterization through spatiotemporal patterns of major, minor and trace element stream concentrations in a complex, mesoscale German catchment. Hydrological Processes, 2008, 22, 2028-2043. | 1.1 | 26 |
| 78 | Ensemble modelling of nitrogen fluxes: data fusion for a Swedish meso-scale catchment. Hydrology and Earth System Sciences, 2010, 14, 2383-2397. | 1.9 | 26 |
| 79 | Modelling of point and non-point source pollution of nitrate with SWAT in the river Dill, Germany. Advances in Geosciences, 0, 5, 7-12. | 12.0 | 26 |
| 80 | Spatial distribution of soils determines export of nitrogen and dissolved organic carbon from an intensively managed agricultural landscape. Biogeosciences, 2012, 9, 4513-4525. | 1.3 | 25 |
| 81 | Continuous <i>versus</i> eventâ€based sampling: how many samples are required for deriving general hydrological understanding on Ecuador's pÃ¡ramo region?. Hydrological Processes, 2016, 30, 4059-4073. | 1.1 | 25 |
| 82 | Improving irrigation efficiency will be insufficient to meet future water demand in the Nile Basin. Journal of Hydrology: Regional Studies, 2017, 12, 315-330. | 1.0 | 25 |
| 83 | Environmental and ecological hydroinformatics to support the implementation of the European Water Framework Directive for river basin management. Journal of Hydroinformatics, 2006, 8, 239-252. | 1.1 | 23 |
| 84 | Identifying Controls on Water Chemistry of Tropical Cloud Forest Catchments: Combining Descriptive Approaches and Multivariate Analysis. Aquatic Geochemistry, 2010, 16, 127-149. | 1.5 | 23 |
| 85 | Solute behaviour and export rates in neotropical montane catchments under different land-uses. Journal of Tropical Ecology, 2011, 27, 305-317. | 0.5 | 23 |
| 86 | Climate change impacts on runoff in the Ferghana Valley (Central Asia). Water Resources, 2017, 44, 707-730. | 0.3 | 23 |
| 87 | A simple greenhouse experiment to explore the effect of cryogenic water extraction for tracing plant source water. Ecohydrology, 2018, 11, e1967. | 1.1 | 23 |
| 88 | Land-use effects on structural and functional composition of benthic and leaf-associated macroinvertebrates in four Andean streams. Aquatic Ecology, 2018, 52, 77-92. | 0.7 | 23 |
| 89 | The influence of land-use on macroinvertebrate communities in montane tropical streams a case study from Ecuador. Fundamental and Applied Limnology, 2010, 177, 267-282. | 0.4 | 22 |
| 90 | Spatial correlation of agri-environmental measures with high levels of ecosystem services. Ecological Indicators, 2018, 84, 364-370. | 2.6 | 22 |

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| 91 | Sensitivity analysis of a climate vulnerability index - a case study from Indian watershed development programmes. Climate Change Responses, 2018, 5, . | 2.6 | 22 |
| 92 | Response of maize biomass and soil water fluxes on elevated CO<sub>2</sub> and droughtâ€”From field experiments to processâ€based simulations. Global Change Biology, 2019, 25, 2947-2957. | 4.2 | 22 |
| 93 | Assessment of potential implications of agricultural irrigation policy on surface water scarcity in Brazil. Hydrology and Earth System Sciences, 2020, 24, 307-324. | 1.9 | 22 |
| 94 | Linking Spatial Patterns of Groundwater Table Dynamics and Streamflow Generation Processes in a Small Developed Catchment. Water (Switzerland), 2014, 6, 3085-3117. | 1.2 | 21 |
| 95 | Agricultural land is the main source of stream sediments after conversion of an African montane forest. Scientific Reports, 2020, 10, 14827. | 1.6 | 21 |
| 96 | Water transport and tracer mixing in volcanic ash soils at a tropical hillslope: A wet layered sloping sponge. Hydrological Processes, 2020, 34, 2032-2047. | 1.1 | 21 |
| 97 | Nitrogen soil surface budgets for districts in Germany 1995 to 2017. Environmental Sciences Europe, 2020, 32, . | 2.6 | 21 |
| 98 | Interdisciplinary modeling and the significance of soil functions. Journal of Plant Nutrition and Soil Science, 2002, 165, 460. | 1.1 | 20 |
| 99 | Set Up of an Automatic Water Quality Sampling System in Irrigation Agriculture. Sensors, 2014, 14, 212-228. | 2.1 | 20 |
| 100 | Regional Patterns of Ecosystem Services in Cultural Landscapes. Land, 2016, 5, 17. | 1.2 | 20 |
| 101 | Rejecting hydro-biogeochemical model structures by multi-criteria evaluation. Environmental Modelling and Software, 2017, 93, 1-12. | 1.9 | 19 |
| 102 | Ambiguous effects of grazing intensity on surface soil moisture: A geostatistical case study from a steppe environment in Inner Mongolia, PR China. Journal of Arid Environments, 2008, 72, 1305-1319. | 1.2 | 18 |
| 103 | Using multi-model averaging to improve the reliability of catchment scale nitrogen predictions. Geoscientific Model Development, 2013, 6, 117-125. | 1.3 | 18 |
| 104 | A Site-sPecific Agricultural water Requirement and footprint Estimator (SPARE:WATER 1.0). Geoscientific Model Development, 2013, 6, 1043-1059. | 1.3 | 18 |
| 105 | Addressing sources of uncertainty in runoff projections for a data scarce catchment in the Ecuadorian Andes. Climatic Change, 2014, 125, 221-235. | 1.7 | 18 |
| 106 | Relevance of nonfunctional linear polyacrylic acid for the biodegradation of superabsorbent polymer in soils. Environmental Science and Pollution Research, 2015, 22, 5444-5452. | 2.7 | 18 |
| 107 | Assessing the model performance of an integrated hydrological and biogeochemical model for discharge and nitrate load predictions. Hydrology and Earth System Sciences, 2007, 11, 997-1011. | 1.9 | 17 |
| 108 | Uncertainty assessment of quantifying spatially concentrated groundwater discharge to small streams by distributed temperature sensing. Water Resources Research, 2013, 49, 400-407. | 1.7 | 17 |

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| 109 | Sampling frequency trade-offs in the assessment of mean transit times of tropical montane catchment waters under semi-steady-state conditions. Hydrology and Earth System Sciences, 2015, 19, 1153-1168. | 1.9 | 17 |
| 110 | Reduction of predictive uncertainty in estimating irrigation water requirement through multi-model ensembles and ensemble averaging. Geoscientific Model Development, 2015, 8, 1233-1244. | 1.3 | 17 |
| 111 | Exploring impacts of vegetated buffer strips on nitrogen cycling using a spatially explicit hydro-biogeochemical modeling approach. Environmental Modelling and Software, 2017, 90, 55-67. | 1.9 | 17 |
| 112 | A coupled hydrological-plant growth model for simulating the effect of elevated CO 2 on a temperate grassland. Agricultural and Forest Meteorology, 2017, 246, 42-50. | 1.9 | 17 |
| 113 | Biodegradability screening of soil amendments through coupling of wavelengthâ€scanned cavity ringâ€down spectroscopy to multiple dynamic chambers. Rapid Communications in Mass Spectrometry, 2011, 25, 3683-3689. | 0.7 | 16 |
| 114 | Knowledge discovery from high-frequency stream nitrate concentrations: hydrology and biology contributions. Scientific Reports, 2016, 6, 31536. | 1.6 | 16 |
| 115 | A hotspot analysis of water footprints and groundwater decline in the High Plains aquifer region, USA. Regional Environmental Change, 2016, 16, 2419-2428. | 1.4 | 16 |
| 116 | A practical planning software program for desalination in agriculture - SPARE:WATERopt. Desalination, 2017, 404, 121-131. | 4.0 | 16 |
| 117 | Constraining a complex biogeochemical model for CO<sub>2</sub> and N<sub>2</sub>O emission simulations from various land uses by modelâ€"data fusion. Biogeosciences, 2017, 14, 3487-3508. | 1.3 | 16 |
| 118 | Detection of artificial sweeteners and iodinated X-ray contrast media in wastewater via LC-MS/MS and their potential use as anthropogenic tracers in flowing waters. Chemosphere, 2019, 218, 189-196. | 4.2 | 16 |
| 119 | Sampling soil water along the <scp>pF</scp> curve for <scp>Î´<sup>2</sup>H</scp> and <scp>Î´<sup>18</sup>O</scp> analysis. Hydrological Processes, 2020, 34, 4959-4972. | 1.1 | 16 |
| 120 | Explainable AI Framework for Multivariate Hydrochemical Time Series. Machine Learning and Knowledge Extraction, 2021, 3, 170-204. | 3.2 | 16 |
| 121 | Effects of Short Term Bioturbation by Common Voles on Biogeochemical Soil Variables. PLoS ONE, 2015, 10, e0126011. | 1.1 | 16 |
| 122 | Modelling Agroforestryâ€™s Contributions to Peopleâ€"A Review of Available Models. Agronomy, 2021, 11, 2106. | 1.3 | 16 |
| 123 | Inferring the effect of catchment complexity on mesoscale hydrologic response. Water Resources Research, 2008, 44, . | 1.7 | 15 |
| 124 | Investigating unproductive water losses from irrigated agricultural crops in the humid tropics through analyses of stable isotopes of water. Hydrology and Earth System Sciences, 2020, 24, 3627-3642. | 1.9 | 15 |
| 125 | Spatial and temporal variation of soil moisture in dependence of multiple environmental parameters in semi-arid grasslands. Plant and Soil, 2011, 340, 73-88. | 1.8 | 14 |
| 126 | Effects of Input Data Content on the Uncertainty of Simulating Water Resources. Water (Switzerland), 2018, 10, 621. | 1.2 | 14 |

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| 127 | Trade-offs between parameter constraints and model realism: a case study. Scientific Reports, 2019, 9, 10729. | 1.6 | 14 |
| 128 | Local temperature optimum of N2O production rates in tropical rain forest soils of Australia. Soil Research, 2005, 43, 689. | 0.6 | 13 |
| 129 | Biodegradation measurements confirm the predictive value of the O:Câ€ratio for biochar recalcitrance. Journal of Plant Nutrition and Soil Science, 2014, 177, 633-637. | 1.1 | 13 |
| 130 | Modification of the microclimate and water balance through the integration of trees into temperate cropping systems. Agricultural and Forest Meteorology, 2022, 323, 109065. | 1.9 | 13 |
| 131 | Rainfallâ€Runoff Modeling Using Crowdsourced Water Level Data. Water Resources Research, 2019, 55, 10856-10871. | 1.7 | 12 |
| 132 | Spatial Distribution of Integrated Nitrate Reduction across the Unsaturated Zone and the Groundwater Body in Germany. Water (Switzerland), 2020, 12, 2456. | 1.2 | 12 |
| 133 | Application of Machine Learning Models to Predict Maximum Event Water Fractions in Streamflow. Frontiers in Water, 2021, 3, . | 1.0 | 12 |
| 134 | The Role of Small Woody Landscape Features and Agroforestry Systems for National Carbon Budgeting in Germany. Land, 2021, 10, 1028. | 1.2 | 12 |
| 135 | A research framework for projecting ecosystem change in highly diverse tropical mountain ecosystems. Oecologia, 2021, 195, 589-600. | 0.9 | 12 |
| 136 | Water-saving strategies for irrigation agriculture in Saudi Arabia. International Journal of Water Resources Development, 2017, 33, 292-309. | 1.2 | 11 |
| 137 | Simulating Long-Term Development of Greenhouse Gas Emissions, Plant Biomass, and Soil Moisture of a Temperate Grassland Ecosystem under Elevated Atmospheric CO2. Agronomy, 2020, 10, 50. | 1.3 | 11 |
| 138 | Tropical Montane Forest Conversion Is a Critical Driver for Sediment Supply in East African Catchments. Water Resources Research, 2020, 56, e2020WR027495. | 1.7 | 11 |
| 139 | High-Resolution, In Situ Monitoring of Stable Isotopes of Water Revealed Insight into Hydrological Response Behavior. Water (Switzerland), 2020, 12, 565. | 1.2 | 11 |
| 140 | Leaching of dissolved and particulate phosphorus <i>via</i> preferential flow pathways in a forest soil: An approach using zeroâ€tension lysimeters. Journal of Plant Nutrition and Soil Science, 2020, 183, 238-247. | 1.1 | 11 |
| 141 | Assessment of multiple stable isotopes for tracking regional and organic authenticity of plant products in Hesse, Germany. Isotopes in Environmental and Health Studies, 2021, 57, 1-20. | 0.5 | 11 |
| 142 | Using Python as a coupling platform for integrated catchment models. Advances in Geosciences, 0, 27, 51-56. | 12.0 | 11 |
| 143 | Focus of the IPCC Assessment Reports Has Shifted to Lower Temperatures. Earth's Future, 2022, 10, . | 2.4 | 11 |
| 144 | Urbanisation process generates more independently-acting stressors and ecosystem functioning impairment in tropical Andean streams. Journal of Environmental Management, 2022, 304, 114211. | 3.8 | 10 |

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| 145 | High-Frequency Water Isotopic Analysis Using an Automatic Water Sampling System in Rice-Based Cropping Systems. Water (Switzerland), 2018, 10, 1327. | 1.2 | 9 |
| 146 | Calculation of a food consumption nitrogen footprint for Germany. Environmental Research Letters, 2021, 16, 075005. | 2.2 | 9 |
| 147 | Simulating Water Resource Availability under Data Scarcityâ€"A Case Study for the Ferghana Valley (Central Asia). Water (Switzerland), 2014, 6, 3270-3299. | 1.2 | 8 |
| 148 | Prediction and uncertainty analysis of a parsimonious floodplain surface waterâ€groundwater interaction model. Water Resources Research, 2017, 53, 7678-7695. | 1.7 | 8 |
| 149 | Is observation uncertainty masking the signal of land use change impacts on hydrology?. Journal of Hydrology, 2019, 570, 393-400. | 2.3 | 8 |
| 150 | Review of soil phosphorus routines in ecosystem models. Environmental Modelling and Software, 2020, 126, 104639. | 1.9 | 8 |
| 151 | Gauging the ungauged basin: a top-down approach in a large semiarid watershed in China. Advances in Geosciences, 0, 18, 3-8. | 12.0 | 8 |
| 152 | Economic and environmental impact assessment of sustainable future irrigation practices in the Indus Basin of Pakistan. Scientific Reports, 2021, 11, 23466. | 1.6 | 8 |
| 153 | A field, laboratory, and literature review evaluation of the water retention curve of volcanic ash soils: How well do standard laboratory methods reflect field conditions?. Hydrological Processes, 2021, 35, e14011. | 1.1 | 7 |
| 154 | Betting on the best case: higher end warming is underrepresented in research. Environmental Research Letters, 2021, 16, 084036. | 2.2 | 7 |
| 155 | Probabilistic multi-model ensemble predictions of nitrogen concentrations in river systems. Geophysical Research Letters, 2011, 38, n/a-n/a. | 1.5 | 6 |
| 156 | Modelling of rare flood meadow species distribution by a combined habitat surface waterâ€"groundwater model. Ecohydrology, 2019, 12, e2122. | 1.1 | 6 |
| 157 | Supporting, Regulating, and Provisioning Hydrological Services. Ecological Studies, 2013, , 107-116. | 0.4 | 6 |
| 158 | Carbon accounting in European agroforestry systems â€" Key research gaps and data needs. Current Research in Environmental Sustainability, 2022, 4, 100134. | 1.7 | 6 |
| 159 | Closing the N-Budget: How Simulated Groundwater-Borne Nitrate Supply Affects Plant Growth and Greenhouse Gas Emissions on Temperate Grassland. Atmosphere, 2018, 9, 407. | 1.0 | 5 |
| 160 | Diurnal Patterns in Solute Concentrations Measured with In Situ UV-Vis Sensors: Natural Fluctuations or Artefacts?. Sensors, 2020, 20, 859. | 2.1 | 5 |
| 161 | Variability in tree water uptake determined with stable water isotopes in an African tropical montane forest. Ecohydrology, 2021, 14, e2278. | 1.1 | 5 |
| 162 | Multi-model data fusion as a tool for PUB: example in a Swedish mesoscale catchment. Advances in Geosciences, 0, 29, 43-50. | 12.0 | 5 |

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| 163 | Multi-model evaluation of catchment- and global-scale hydrological model simulations of drought characteristics across eight large river catchments. Advances in Water Resources, 2022, 165, 104212. | 1.7 | 5 |
| 164 | Effect of (quasi-)optimum model parameter sets and model characteristics on future discharge projection of two basins from Europe and Asia. Climatic Change, 2017, 142, 559-573. | 1.7 | 4 |
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