

# Markus Disse

## List of Publications by Year in descending order

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79  
papers

2,643  
citations

218677

26  
h-index

214800

47  
g-index

120  
all docs

120  
docs citations

120  
times ranked

3070  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluvial flood risk management in a changing world. <i>Natural Hazards and Earth System Sciences</i> , 2010, 10, 509-527.	3.6	334
2	Evaluation of eight high spatial resolution gridded precipitation products in Adige Basin (Italy) at multiple temporal and spatial scales. <i>Science of the Total Environment</i> , 2016, 573, 1536-1553.	8.0	270
3	Evaluation of precipitation input for SWAT modeling in Alpine catchment: A case study in the Adige river basin (Italy). <i>Science of the Total Environment</i> , 2016, 573, 66-82.	8.0	212
4	Fuzzy rule-based models for infiltration. <i>Water Resources Research</i> , 1993, 29, 373-382.	4.2	119
5	Analyzing the future climate change of Upper Blue Nile River basin using statistical downscaling techniques. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 2391-2408.	4.9	82
6	Evaluating the performance of random forest for large-scale flood discharge simulation. <i>Journal of Hydrology</i> , 2020, 590, 125531.	5.4	78
7	Flood Events in the Rhine Basin: Genesis, Influences and Mitigation. , 2001, 23, 271-290.		76
8	Climate change, water resources and sustainable development in the arid and semi-arid lands of Central Asia in the past 30 years. <i>Journal of Arid Land</i> , 2019, 11, 1-14.	2.3	76
9	Analysis of combined and isolated effects of land-use and land-cover changes and climate change on the upper Blue Nile River basin's streamflow. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 6187-6207.	4.9	66
10	A multi-objective approach to improve SWAT model calibration in alpine catchments. <i>Journal of Hydrology</i> , 2018, 559, 347-360.	5.4	63
11	Multi-scale modelling of land-use change and river training effects on floods in the Rhine basin. <i>River Research and Applications</i> , 2007, 23, 1102-1125.	1.7	61
12	Sustainable management of river oases along the Tarim River (SuMaRiO) in Northwest China under conditions of climate change. <i>Earth System Dynamics</i> , 2015, 6, 83-107.	7.1	60
13	Periodicity of sediment load and runoff in the Yangtze River basin and possible impacts of climatic changes and human activities / Périodicité de la charge sédimentaire et de l'écoulement dans le bassin du Fleuve Yangtze et impacts possibles des changements climatiques et des activités humaines. <i>Hydrological Sciences Journal</i> , 2008, 53, 457-465.	2.6	50
14	Laboratory Calibration and Performance Evaluation of Low-Cost Capacitive and Very Low-Cost Resistive Soil Moisture Sensors. <i>Sensors</i> , 2020, 20, 363.	3.8	46
15	Framework for Offline Flood Inundation Forecasts for Two-Dimensional Hydrodynamic Models. <i>Geosciences (Switzerland)</i> , 2018, 8, 346.	2.2	42
16	Effects of Land Use and Climate Change on Groundwater and Ecosystems at the Middle Reaches of the Tarim River Using the MIKE SHE Integrated Hydrological Model. <i>Water (Switzerland)</i> , 2015, 7, 3040-3056.	2.7	40
17	Exploring the relation between flood risk management and flood resilience. <i>Water Security</i> , 2020, 9, 100059.	2.5	38
18	Flood inundation forecasts using validation data generated with the assistance of computer vision. <i>Journal of Hydroinformatics</i> , 2019, 21, 240-256.	2.4	36

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19	River network evolution and fluvial process responses to human activity in a hyper-arid environment – Case of the Tarim River in Northwest China. <i>Catena</i> , 2016, 147, 96-109.	5.0	35
20	Agricultural water allocation strategies along the oasis of Tarim River in Northwest China. <i>Agricultural Water Management</i> , 2017, 187, 24-36.	5.6	33
21	Assessment of Discharge through a Dike Breach and Simulation of Flood Wave Propagation. <i>Natural Hazards</i> , 2006, 38, 63-78.	3.4	32
22	Large-Scale Hydrological Modeling and Decision-Making for Agricultural Water Consumption and Allocation in the Main Stem Tarim River, China. <i>Water (Switzerland)</i> , 2015, 7, 2821-2839.	2.7	32
23	Possible climate change/variability and human impacts, vulnerability of drought-prone regions, water resources and capacity building for Africa. <i>Hydrological Sciences Journal</i> , 0, , 1-18.	2.6	32
24	Modeling the hydrological impact of land use change in a dolomite-dominated karst system. <i>Journal of Hydrology</i> , 2018, 567, 267-279.	5.4	32
25	Prediction of Maximum Flood Inundation Extents With Resilient Backpropagation Neural Network: Case Study of Kulmbach. <i>Frontiers in Earth Science</i> , 2020, 8, .	1.8	32
26	A new approach to quantify propagation time from meteorological to hydrological drought. <i>Journal of Hydrology</i> , 2021, 603, 127056.	5.4	32
27	Monitoring Water Quality of Valle de Bravo Reservoir, Mexico, Using Entire Lifespan of MERIS Data and Machine Learning Approaches. <i>Remote Sensing</i> , 2020, 12, 1586.	4.0	30
28	The effectiveness of polder systems on peak discharge capping of floods along the middle reaches of the Elbe River in Germany. <i>Hydrology and Earth System Sciences</i> , 2007, 11, 1391-1401.	4.9	28
29	Variability in snow depth time series in the Adige catchment. <i>Journal of Hydrology: Regional Studies</i> , 2017, 13, 240-254.	2.4	26
30	Improving SWAT model performance in the upper Blue Nile Basin using meteorological data integration and subcatchment discretization. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 4907-4926.	4.9	25
31	Calibration of snow parameters in SWAT: comparison of three approaches in the Upper Adige River basin (Italy). <i>Hydrological Sciences Journal</i> , 2018, 63, 657-678.	2.6	23
32	A meta-analysis of the value of ecosystem services of floodplains for the Danube River Basin. <i>Science of the Total Environment</i> , 2021, 777, 146062.	8.0	22
33	Optimizing Water Allocation under Uncertain System Conditions for Water and Agriculture Future Scenarios in Alfeios River Basin (Greece) – Part B: Fuzzy-Boundary Intervals Combined with Multi-Stage Stochastic Programming Model. <i>Water (Switzerland)</i> , 2015, 7, 6427-6466.	2.7	21
34	Climate change in Central Asia: Sino-German cooperative research findings. <i>Science Bulletin</i> , 2020, 65, 689-692.	9.0	21
35	Integration of Remote Sensing and Mexican Water Quality Monitoring System Using an Extreme Learning Machine. <i>Sensors</i> , 2021, 21, 4118.	3.8	20
36	Spatiotemporal analysis of heavy rain-induced flood occurrences in Germany using a novel event database approach. <i>Journal of Hydrology</i> , 2021, 595, 125985.	5.4	18

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37	Development and application of high resolution SPEI drought dataset for Central Asia. <i>Scientific Data</i> , 2022, 9, 172.	5.3	17
38	Fully automated snow depth measurements from time-lapse images applying a convolutional neural network. <i>Science of the Total Environment</i> , 2019, 697, 134213.	8.0	16
39	Comparison of two model calibration approaches and their influence on future projections under climate change in the Upper Indus Basin. <i>Climatic Change</i> , 2020, 163, 1227-1246.	3.6	16
40	A Multi-Criteria Model Selection Protocol for Practical Applications to Nutrient Transport at the Catchment Scale. <i>Water (Switzerland)</i> , 2015, 7, 2851-2880.	2.7	15
41	Can We Calibrate a Daily Time-Step Hydrological Model Using Monthly Time-Step Discharge Data?. <i>Water (Switzerland)</i> , 2019, 11, 1750.	2.7	15
42	Spatial and temporal variability in hydrochemistry of a small-scale dolomite karst environment. <i>Environmental Earth Sciences</i> , 2019, 78, 1.	2.7	15
43	Evaluation of homogenization methods for seasonal snow depth data in the Austrian Alps, 1930â€“2010. <i>International Journal of Climatology</i> , 2019, 39, 4514-4530.	3.5	15
44	Forecasting upper and lower uncertainty bands of river flood discharges with high predictive skill. <i>Journal of Hydrology</i> , 2019, 576, 749-763.	5.4	14
45	A GIS-based model for simulating the hydrological effects of land use changes on karst systems â€“ The integration of the LuKARS model into FREEWAT. <i>Environmental Modelling and Software</i> , 2020, 127, 104682.	4.5	14
46	Possibilities and Limitations of Interdisciplinary, User-oriented Research: Experiences from the German Research Network Natural Disasters. <i>Natural Hazards</i> , 2006, 38, 3-20.	3.4	13
47	An eco-hydrological approach to predicting regional vegetation and groundwater response to ecological water conveyance in dryland riparian ecosystems. <i>Quaternary International</i> , 2015, 380-381, 224-236.	1.5	13
48	Building hazard maps with differentiated risk perception for flood impact assessment. <i>Natural Hazards and Earth System Sciences</i> , 2020, 20, 2647-2663.	3.6	13
49	Optimizing Water Allocation under Uncertain System Conditions in Alfeios River Basin (Greece), Part A: Two-Stage Stochastic Programming Model with Deterministic Boundary Intervals. <i>Water (Switzerland)</i> , 2015, 7, 5305-5344.	2.7	12
50	Integrated Valuation of Nature-Based Solutions Using TESSA: Three Floodplain Restoration Studies in the Danube Catchment. <i>Sustainability</i> , 2021, 13, 1482.	3.2	11
51	Model based decision support system for land use changes and socio-economic assessments. <i>Journal of Arid Land</i> , 2018, 10, 169-182.	2.3	10
52	Reducing uncertainties in flood inundation outputs of a two-dimensional hydrodynamic model by constraining roughness. <i>Natural Hazards and Earth System Sciences</i> , 2019, 19, 1445-1457.	3.6	10
53	Providing guidance on efficient flash flood documentation: an application based approach. <i>Journal of Hydrology</i> , 2020, 581, 124466.	5.4	10
54	Multistep Flood Inundation Forecasts with Resilient Backpropagation Neural Networks: Kulmbach Case Study. <i>Water (Switzerland)</i> , 2020, 12, 3568.	2.7	10

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55	Declining glaciers endanger sustainable development of the oases along the Aksu-Tarim River (Central) Tj ETQq1 1 0.784314 ggBT /Over	5.9	14
56	Sediment dynamics of an allogenic river channel in a very arid environment. Hydrological Processes, 2017, 31, 2050-2061.	2.6	8
57	Evaluation of CMIP5 Climate Models Using Historical Surface Air Temperatures in Central Asia. Atmosphere, 2021, 12, 308.	2.3	8
58	Intercomparison of Sentinel-2 and modelled snow cover maps in a high-elevation Alpine catchment. Journal of Hydrology X, 2022, 15, 100123.	1.6	8
59	Regional-scale prediction of pluvial and flash flood susceptible areas using tree-based classifiers. Journal of Hydrology, 2022, 612, 128088.	5.4	8
60	Statistical analysis and modelling of surface runoff from arable fields in central Europe. Hydrology and Earth System Sciences, 2013, 17, 4121-4132.	4.9	7
61	Implementation of Simple Strategies to Improve Wellfield Management in Arid Regions: The Case Study of Wadi Al Arab Wellfield, Jordan. Sustainability, 2019, 11, 5903.	3.2	7
62	The study of artificial intelligence for predicting land use changes in an arid ecosystem. Journal of Chinese Geography, 2022, 32, 717-734.	3.9	7
63	Flood risk management along German rivers – A review of multi-criteria analysis methods and decision-support systems. Environmental Science and Policy, 2022, 135, 191-206.	4.9	7
64	Risk-based flood protection planning under climate change and modeling uncertainty: a pre-alpine case study. Natural Hazards and Earth System Sciences, 2018, 18, 1327-1347.	3.6	5
65	Automated Location Detection of Retention and Detention Basins for Water Management. Water (Switzerland), 2020, 12, 1491.	2.7	5
66	Occurrence and Characteristics of Flash Floods in Bavaria (Germany). Climate Change Management, 2020, , 293-310.	0.8	5
67	Validation of a simple model to determine regional evapotranspiration and groundwater recharge rates. Physics and Chemistry of the Earth, 1999, 24, 325-330.	0.3	4
68	Saturated hydraulic conductivity from field measurements compared to pedotransfer functions in a heterogeneous arable landscape. Journal of Earth Science (Wuhan, China), 2010, 21, 923-930.	3.2	4
69	Uncertainties of soil parameterisation in process-based simulation of distributed flood control measures. Advances in Geosciences, 0, 27, 121-129.	12.0	4
70	Monitoring the Spring Flood in Lena Delta with Hydrodynamic Modeling Based on SAR Satellite Products. Remote Sensing, 2021, 13, 4695.	4.0	4
71	Discharge Interval method for uncertain flood forecasts using a flood model chain: city of Kulmbach. Journal of Hydroinformatics, 2019, 21, 925-944.	2.4	3
72	SUSTAINABLE MANAGEMENT OF RIVER OASES ALONG THE TARIM RIVER (P.R. CHINA) AND THE ECOSYSTEM SERVICES APPROACH. Geography, Environment, Sustainability, 2013, 6, 77-90.	1.3	3

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73	Experimental Investigation of Lateral Subsurface Flow Depending on Land Use and Soil Cultivation. Water (Switzerland), 2019, 11, 766.	2.7	2
74	Hybrid-Parallel Simulations and Visualisations of Real Flood and Tsunami Events Using Unstructured Meshes on High-Performance Cluster Systems. Springer Water, 2020, , 867-888.	0.3	2
75	Suspended sediment dynamics of an allogenic dryland river channel. , 2016, , 490-495.		1
76	Sustainable land and water management of River Oases along the Tarim River. Proceedings of the International Association of Hydrological Sciences, 0, 373, 25-29.	1.0	1
77	Multikriterielle Wirksamkeitsanalysen zum dezentralen Hochwasserschutz. , 2018, , 202-209.		0
78	Dynamic Flood Inundation Forecast for the City of Kulmbach Using Offline Two-Dimensional Hydrodynamic Models. , 0, , .		0
79	Flood Forecasting with Uncertainty Using a Fully Automated Flood Model Chain: a Case Study for the City of Kulmbach. , 0, , .		0