Thomas Meixner

List of Publications by Year
in descending order

103 papers	5,271 citations	109264 35 h-index	88593 70 g-index
107 all docs	107 docs citations	107 times ranked	6802 citing authors

#	Article	IF	Citations
1	A global sensitivity analysis tool for the parameters of multi-variable catchment models. Journal of Hydrology, 2006, 324, 10-23.	2.3	980
2	Ecological Effects of Nitrogen Deposition in the Western United States. BioScience, 2003, 53, 404.	2.2	522
3	Episodic rewetting enhances carbon and nitrogen release from chaparral soils. Soil Biology and Biochemistry, 2005, 37, 2195-2204.	4.2	305
4	Implications of projected climate change for groundwater recharge in the western United States. Journal of Hydrology, 2016, 534, 124-138.	2.3	299
5	Nitrogen critical loads and management alternatives for N-impacted ecosystems in California. Journal of Environmental Management, 2010, 91, 2404-2423.	3.8	192
6	Methods to quantify and identify the sources of uncertainty for river basin water quality models. Water Science and Technology, 2006, 53, 51-59.	1.2	176
7	Interactions Between Biogeochemistry and Hydrologic Systems. Annual Review of Environment and Resources, 2009, 34, 65-96.	5.6	138
8	Tracing Atmospheric Nitrate Deposition in a Complex Semiarid Ecosystem Using Î”17O. Environmental Science & Technology, 2004, 38, 2175-2181.	4.6	134
9	Empirical and simulated critical loads for nitrogen deposition in California mixed conifer forests. Environmental Pollution, 2008, 155, 492-511.	3.7	120
10	How Water, Carbon, and Energy Drive Critical Zone Evolution: The Jemezâ€“Santa Catalina Critical Zone Observatory. Vadose Zone Journal, 2011, 10, 884-899.	1.3	111
11	A global and efficient multi-objective auto-calibration and uncertainty estimation method for water quality catchment models. Journal of Hydroinformatics, 2007, 9, 277-291.	1.1	105
12	Determining the importance of model calibration for forecasting absolute/relative changes in streamflow from LULC and climate changes. Journal of Hydrology, 2015, 522, 439-451.	2.3	96
13	Quantifying mountain block recharge by means of catchmentâ€scale storageâ€discharge relationships. Water Resources Research, 2011, 47, .	1.7	88
14	Prescribed fire, soils, and stream water chemistry in a watershed in the Lake Tahoe Basin, California. International Journal of Wildland Fire, 2004, 13, 27.	1.0	65
15	Towards a unified thresholdâ€based hydrological theory: necessary components and recurring challenges. Hydrological Processes, 2013, 27, 313-318.	1.1	63
16	Biogeochemical Budgets in a Mediterranean Catchment with High Rates of Atmospheric N Deposition â€“ Importance of Scale and Temporal Asynchrony. Biogeochemistry, 2004, 70, 331-356.	1.7	62
17	Stream water carbon controls in seasonally snow-covered mountain catchments: impact of inter-annual variability of water fluxes, catchment aspect and seasonal processes. Biogeochemistry, 2014, 118, 273-290.	1.7	60
18	Critical Zone Services: Expanding Context, Constraints, and Currency beyond Ecosystem Services. Vadose Zone Journal, 2015, 14, vzj2014.10.0142.	1.3	60

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19	Riskâ€based determination of critical nitrogen deposition loads for fire spread in southern California deserts. Ecological Applications, 2010, 20, 1320-1335.	1.8	59
20	Physical and biological controls on trace gas fluxes in semi-arid urban ephemeral waterways. Biogeochemistry, 2014, 121, 189-207.	1.7	58
21	Geochemical evolution of the <scp>C</scp>ritical <scp>Z</scp>one across variable time scales informs concentrationâ€discharge relationships: <scp>J</scp>emez <scp>R</scp>iver <scp>B</scp>asin <scp>C</scp>ritical <scp>Z</scp>one <scp>O</scp>bservatory. Water Resources Research, 2017, 53, 4169-4196.	1.7	57
22	Assessing Nitrogen-Saturation in a Seasonally Dry Chaparral Watershed: Limitations of Traditional Indicators of N-Saturation. Ecosystems, 2014, 17, 1286-1305.	1.6	55
23	Modeling effects of floods on streambed hydraulic conductivity and groundwaterâ€surface water interactions. Water Resources Research, 2012, 48, .	1.7	50
24	Aerosol and precipitation chemistry in the southwestern United States: spatiotemporal trends and interrelationships. Atmospheric Chemistry and Physics, 2013, 13, 7361-7379.	1.9	49
25	Why Do Largeâ€Scale Land Surface Models Produce a Low Ratio of Transpiration to Evapotranspiration?. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9109-9130.	1.2	47
26	Multi-gauge Calibration for Modeling the Semi-Arid Santa Cruz Watershed in Arizona-Mexico Border Area Using SWAT. Air, Soil and Water Research, 2012, 5, ASWR.S9410.	1.2	46
27	High Atmospheric Nitrate Inputs and Nitrogen Turnover in Semi-arid Urban Catchments. Ecosystems, 2014, 17, 1309-1325.	1.6	46
28	Fit-for-purpose analysis of uncertainty using split-sampling evaluations. Hydrological Sciences Journal, 2008, 53, 1090-1103.	1.2	42
29	Decadal-scale Dynamics of Water, Carbon and Nitrogen in a California Chaparral Ecosystem: DAYCENT Modeling Results. Biogeochemistry, 2006, 77, 217-245.	1.7	41
30	Altered Ecohydrologic Response Drives Native Shrub Loss under Conditions of Elevated Nitrogen Deposition. Journal of Environmental Quality, 2006, 35, 76-92.	1.0	40
31	Seasonal variation in nitrogen uptake and turnover in two high-elevation soils: mineralization responses are site-dependent. Biogeochemistry, 2009, 93, 253-270.	1.7	40
32	Impacts of anthropogenic N additions on nitrogen mineralization from plant litter in exotic annual grasslands. Soil Biology and Biochemistry, 2007, 39, 24-32.	4.2	39
33	How Might Recharge Change Under Projected Climate Change in the Western U.S.?. Geophysical Research Letters, 2017, 44, 10407-10418.	1.5	38
34	Mineralization responses at near-zero temperatures in three alpine soils. Biogeochemistry, 2007, 84, 233-245.	1.7	37
35	Clogging of an Effluent Dominated Semiarid River: A Conceptual Model of Streamâ€Aquifer Interactions¹. Journal of the American Water Resources Association, 2009, 45, 1047-1062.	1.0	36
36	Using ¹⁷O to Investigate Nitrate Sources and Sinks in a Semi-Arid Groundwater System. Environmental Science & Technology, 2012, 46, 745-751.	4.6	36

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37	Dryland Riparian Ecosystems in the American Southwest: Sensitivity and Resilience to Climatic Extremes. Ecosystems, 2013, 16, 411-415.	1.6	36
38	Changes in N cycling and microbial N with elevated N in exotic annual grasslands of southern California. Applied Soil Ecology, 2007, 36, 1-9.	2.1	32
39	Stream chemistry modeling of two watersheds in the Front Range, Colorado. Water Resources Research, 2000, 36, 77-87.	1.7	31
40	It takes a community to raise a hydrologist: the Modular Curriculum for Hydrologic Advancement (MOCHA). Hydrology and Earth System Sciences, 2012, 16, 3405-3418.	1.9	31
41	N Saturation Symptoms in Chaparral Catchments Are Not Reversed by Prescribed Fire. Environmental Science & Technology, 2006, 40, 2887-2894.	4.6	29
42	Multicriteria parameter estimation for models of stream chemical composition. Water Resources Research, 2002, 38, 9-1-9-9.	1.7	28
43	Riparian vegetation of ephemeral streams. Journal of Arid Environments, 2017, 138, 27-37.	1.2	28
44	Combined impact of catchment size, land cover, and precipitation on streamflow and total dissolved nitrogen: A global comparative analysis. Global Biogeochemical Cycles, 2015, 29, 1109-1121.	1.9	27
45	Sensitivity analysis using mass flux and concentration. Hydrological Processes, 1999, 13, 2233-2244.	1.1	26
46	Seasonalizing Mountain System Recharge in Semiâ€Arid Basinsâ€Climate Change Impacts. Ground Water, 2012, 50, 585-597.	0.7	26
47	Adding an empirical factor to better represent the rewetting pulse mechanism in a soil biogeochemical model. Geoderma, 2010, 159, 440-451.	2.3	25
48	Using Large Data Sets for Open-Ended Inquiry in Undergraduate Science Classrooms. BioScience, 2017, 67, 1052-1061.	2.2	25
49	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
50	Influence of shifting flow paths on nitrogen concentrations during monsoon floods, San Pedro River, Arizona. Journal of Geophysical Research, 2007, 112, .	3.3	23
51	Comparing potential recharge estimates from three Land Surface Models across the western US. Journal of Hydrology, 2017, 545, 410-423.	2.3	22
52	Hydrologic functioning of the deep critical zone and contributions to streamflow in a highâ€elevation catchment: Testing of multiple conceptual models. Hydrological Processes, 2019, 33, 476-494.	1.1	22
53	Effects of measurement resolution on the analysis of temperature time series for streamâ€aquifer flux estimation. Water Resources Research, 2011, 47, .	1.7	20
54	The role of flood size and duration on streamflow and riparian groundwater composition in a semi-arid basin. Journal of Hydrology, 2013, 488, 126-135.	2.3	20

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55	Framing Scenarios of Binational Water Policy with a Tool to Visualize, Quantify and Valuate Changes in Ecosystem Services. Water (Switzerland), 2013, 5, 852-874.	1.2	20
56	Multidecadal hydrochemical response of a Sierra Nevada watershed: sensitivity to weathering rate and changes in deposition. Journal of Hydrology, 2004, 285, 272-285.	2.3	19
57	Title is missing!. Biogeochemistry, 2003, 62, 289-308.	1.7	17
58	A net ecosystem carbon budget for snow dominated forested headwater catchments: linking water and carbon fluxes to critical zone carbon storage. Biogeochemistry, 2018, 138, 225-243.	1.7	17
59	Distinct stores and the routing of water in the deep critical zone of a snow-dominated volcanic catchment. Hydrology and Earth System Sciences, 2019, 23, 4661-4683.	1.9	17
60	Evaluation of the importance of clay confining units on groundwater flow in alluvial basins using solute and isotope tracers: the case of Middle San Pedro Basin in southeastern Arizona (USA). Hydrogeology Journal, 2014, 22, 829-849.	0.9	16
61	Framework for incorporating climate change on flood magnitude and frequency analysis in the upper Santa Cruz River. Journal of Hydrology, 2017, 549, 194-207.	2.3	16
62	Estimating stream chemistry during the snowmelt pulse using a spatially distributed, coupled snowmelt and hydrochemical modeling approach. Water Resources Research, 2008, 44, .	1.7	15
63	Impact of land-surface elevation and riparian evapotranspiration seasonality on groundwater budget in MODFLOW models. Hydrogeology Journal, 2011, 19, 1181-1188.	0.9	15
64	RIPGISâ€NET: A GIS Tool for Riparian Groundwater Evapotranspiration in MODFLOW. Ground Water, 2012, 50, 154-158.	0.7	14
65	Impact of transient soil water simulation to estimated nitrogen leaching and emission at high- and low-deposition forest sites in Southern California. Journal of Geophysical Research, 2011, 116, .	3.3	13
66	Quantifying the effects of stream channels on storm water quality in a semi-arid urban environment. Journal of Hydrology, 2012, 470-471, 98-110.	2.3	13
67	Interactive Effects of Air Pollution and Climate Change on Forest Ecosystems in the United States. Developments in Environmental Science, 2013, 13, 333-369.	0.5	13
68	Modeling nitrogen transport in the Newport Bay/San Diego Creek watershed of Southern California. Agricultural Water Management, 2006, 81, 199-215.	2.4	12
69	Importance of biogeochemical processes in modeling stream chemistry in two watersheds in the Sierra Nevada, California. Water Resources Research, 1998, 34, 3121-3133.	1.7	11
70	Seasonal glacial meltwater contributions to surface water in the Bolivian Andes: A case study using environmental tracers. Journal of Hydrology: Regional Studies, 2016, 8, 260-273.	1.0	11
71	Valuing instream-related services of wastewater. Ecosystem Services, 2016, 21, 59-71.	2.3	11
72	Smog Nitrogen and the Rapid Acidification of Forest Soil, San Bernardino Mountains, Southern California. Scientific World Journal, The, 2007, 7, 175-180.	0.8	10

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73	Net Zero Urban Water from Concept to Applications: Integrating Natural, Built, and Social Systems for Responsive and Adaptive Solutions. ACS ES&T Water, 2021, 1, 518-529.	2.3	10
74	Overland flow generation in chaparral ecosystems: temporal and spatial variability. Hydrological Processes, 2010, 24, 65-75.	1.1	9
75	Identifying the sources and geochemical evolution of groundwater using stable isotopes and hydrogeochemistry in the Quaternary aquifer in the area between Ismailia and El Kassara canals, Northeastern Egypt. Arabian Journal of Geosciences, 2016, 9, 1.	0.6	9
76	Riparian zones attenuate nitrogen loss following bark beetleâ€induced lodgepole pine mortality. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 933-948.	1.3	9
77	Post-secondary Science Studentsâ€™ Explanations of Randomness and Variation and Implications for Science Learning. International Journal of Science and Mathematics Education, 2017, 15, 1039-1056.	1.5	9
78	Vegetation source water identification using isotopic and hydrometric observations from a subhumid mountain catchment. Ecohydrology, 2020, 13, e2167.	1.1	9
79	Nitrate in Polluted Mountainous Catchments with Mediterranean Climates. Scientific World Journal, The, 2001, 1, 564-571.	0.8	8
80	Influences of topographic index distribution on hydrologically sensitive areas in agricultural watershed. Stochastic Environmental Research and Risk Assessment, 2014, 28, 2235-2242.	1.9	8
81	The influence of local hydrogeologic forcings on nearâ€stream event water recharge and retention (Upper San Pedro River, Arizona). Hydrological Processes, 2013, 27, 617-627.	1.1	7
82	Groundwater Isotopes in the Sonoyta River Watershed, USA-Mexico: Implications for Recharge Sources and Management of the Quitobaquito Springs. Water (Switzerland), 2020, 12, 3307.	1.2	7
83	Estimating Surface Water Presence and Infiltration in Ephemeral to Intermittent Streams in the Southwestern US. Frontiers in Water, 2020, 2, .	1.0	7
84	Students, Meet Data. Eos, 2016, 97, .	0.1	5
85	Annual and monthly runoff analysis in the Elqui River, Chile, a semi-arid snow-glacier fed basin. Tecnologia Y Ciencias Del Agua, 2017, 08, 23-35.	0.1	5
86	Temporal and spatial variability of cation and silica export in an alpine watershed, Emerald Lake, California. Hydrological Processes, 2004, 18, 1759-1776.	1.1	4
87	EDDIE modules are effective learning tools for developing quantitative literacy and seismological understanding. Journal of Geoscience Education, 2018, 66, 97-108.	0.8	4
88	Selfâ€Affine Fractal Spatial and Temporal Variability of the San Pedro River, Southern Arizona. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1540-1558.	1.0	4
89	Influence of Climate and Duration of Stream Water Presence on Rates of Litter Decomposition and Nutrient Dynamics in Temporary Streams and Surrounding Environments of Southwestern USA. Frontiers in Water, 2020, 2, .	1.0	4
90	Carbon and Nitrogen Export from Semiarid Uplands to Perennial Rivers: Connections and Missing Links, San Pedro River, Arizona, USA. Geography Compass, 2012, 6, 546-559.	1.5	3

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91	A Comparison of Empirical and Modelled Nitrogen Critical Loads for Mediterranean Forests and Shrublands in California. , 2014, , 357-368.		3
92	Rapid Assessment and Long-Term Monitoring of Green Stormwater Infrastructure with Citizen Scientists. Sustainability, 2021, 13, 12520.	1.6	3
93	Estimating parameters and structure of a hydrochemical model using multiple criteria. Water Science and Application, 2003, , 213-228.	0.3	2
94	Chapter 19 Management Options for Mitigating Nitrogen (N) Losses from N-Saturated Mixed-Conifer Forests in California. Developments in Environmental Science, 2008, 8, 425-455.	0.5	2
95	Ubiquitous Fractal Scaling and Filtering Behavior of Hydrologic Fluxes and Storages from A Mountain Headwater Catchment. Water (Switzerland), 2020, 12, 613.	1.2	2
96	Water in the desert: Introduction to special section on River and Riparian Biogeochemistry. Journal of Geophysical Research, 2007, 112, .	3.3	1
97	Event-Response Ellipses: A Method to Quantify and Compare the Role of Dynamic Storage at the Catchment Scale in Snowmelt-Dominated Systems. Water (Switzerland), 2018, 10, 1824.	1.2	1
98	An improved practical approach for estimating catchmentâ€scale response functions through wavelet analysis. Hydrological Processes, 2021, 35, e14082.	1.1	1
99	Tandem Use of Multiple Tracers and Metrics to Identify Dynamic and Slow Hydrological Flowpaths. Frontiers in Water, 2022, 4, .	1.0	1
100	How Soil Freezes and Thaws at a Snow-Dominated Forest Site in the U.S.â€"A Synthetic Approach Using the Soil and Cold Regions Model (SCRM). Soil Systems, 2022, 6, 52.	1.0	1
101	Federal priorities and programs in the hydrological sciences. Eos, 1999, 80, 271.	0.1	0
102	Use of Combined Biogeochemical Model Approaches and Empirical Data to Assess Critical Loads of Nitrogen. Environmental Pollution, 2015, , 269-295.	0.4	0
103	The role of biodiversity in the hydrological cycle. IHE Delft Lecture Note Series, 2016, , 249-288.	0.0	0