Martin Schmid

List of Publications by Year
in descending order

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88	4,963	87888 38	98798 67
papers	citations	h-index	g-index

97	97	97	6161
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heat Budget of Lakes. , 2022, , 467-473.		8
2	Dynamic modelling provides new insights into development and maintenance of Lake Kivu's density stratification. Environmental Modelling and Software, 2022, 147, 105251.	4.5	4
3	A framework for ensemble modelling of climate change impacts on lakes worldwide: the ISIMIP Lake Sector. Geoscientific Model Development, 2022, 15, 4597-4623.	3.6	37
4	Macroinvertebrate Recovery to Varying Hydropeaking Frequency: A Small Hydropower Plant Experiment. Frontiers in Environmental Science, 2021, 8, .	3.3	10
5	The vulnerability of lakes to climate change along an altitudinal gradient. Communications Earth & Environment, 2021, 2, .	6.8	36
6	Lake Modeling Reveals Management Opportunities for Improving Water Quality Downstream of Transboundary Tropical Dams. Water Resources Research, 2021, 57, e2020WR027465.	4.2	16
7	Unaccounted CO ₂ leaks downstream of a large tropical hydroelectric reservoir. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	22
8	Climate change drives widespread shifts in lake thermal habitat. Nature Climate Change, 2021, 11, 521-529.	18.8	87
9	Widespread deoxygenation of temperate lakes. Nature, 2021, 594, 66-70.	27.8	267
10	Missing atmospheric noble gases in a large, tropical lake: The case of Lake Kivu, East-Africa. Chemical Geology, 2020, 532, 119374.	3.3	7
11	Deeper waters are changing less consistently than surface waters in a global analysis of 102 lakes. Scientific Reports, 2020, 10, 20514.	3.3	56
12	No increasing risk of a limnic eruption at Lake Kivu: Intercomparison study reveals gas concentrations close to steady state. PLoS ONE, 2020, 15, e0237836.	2.5	11
13	Widespread diminishing anthropogenic effects on calcium in freshwaters. Scientific Reports, 2019, 9, 10450.	3.3	84
14	Sixty years since the creation of Lake Kariba: Thermal and oxygen dynamics in the riverine and lacustrine sub-basins. PLoS ONE, 2019, 14, e0224679.	2.5	9
15	Modeling sediment oxygen demand in a highly productive lake under various trophic scenarios. PLoS ONE, 2019, 14, e0222318.	2.5	12
16	Toward an open access to high-frequency lake modeling and statistics data for scientists and practitioners â€“ the case of Swiss lakes using Simstrat v2.1. Geoscientific Model Development, 2019, 12, 3955-3974.	3.6	28
17	State of the Climate in 2018. Bulletin of the American Meteorological Society, 2019, 100, Si-S306.	3.3	168
18	Small hydropower goes unchecked. Frontiers in Ecology and the Environment, 2019, 17, 256-258.	4.0	17

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19	Ensemble modelling of ice cover for a reservoir affected by pumpedâ€storage operation and climate change. Hydrological Processes, 2019, 33, 2676-2690.	2.6	17
20	Substantial increase in minimum lake surface temperatures under climate change. Climatic Change, 2019, 155, 81-94.	3.6	66
21	Combined effects of pumped-storage operation and climate change on thermal structure and water quality. Climatic Change, 2019, 152, 413-429.	3.6	9
22	The role of double diffusion for the heat and salt balance in Lake Kivu. Limnology and Oceanography, 2019, 64, 650-660.	3.1	6
23	Using lakes and rivers for extraction and disposal of heat: Estimate of regional potentials. Renewable Energy, 2019, 134, 330-342.	8.9	23
24	A multi-lake comparative analysis of the General Lake Model (GLM): Stress-testing across a global observatory network. Environmental Modelling and Software, 2018, 102, 274-291.	4.5	93
25	Effects of Lakeâ€“Reservoir Pumped-Storage Operations on Temperature and Water Quality. Sustainability, 2018, 10, 1968.	3.2	17
26	Impacts of using lakes and rivers for extraction and disposal of heat. Wiley Interdisciplinary Reviews: Water, 2018, 5, e1295.	6.5	17
27	Basinâ€scale effects of small hydropower on biodiversity dynamics. Frontiers in Ecology and the Environment, 2018, 16, 397-404.	4.0	74
28	Warming of Central European lakes and their response to the 1980s climate regime shift. Climatic Change, 2017, 142, 505-520.	3.6	108
29	Role of gas ebullition in the methane budget of a deep subtropical lake: What can we learn from processâ€based modeling?. Limnology and Oceanography, 2017, 62, 2674-2698.	3.1	34
30	Organic carbon mass accumulation rate regulates the flux of reduced substances from the sediments of deep lakes. Biogeosciences, 2017, 14, 3275-3285.	3.3	31
31	Optimizing the parameterization of deep mixing and internal seiches in one-dimensional hydrodynamic models: a case study with Simstrat v1.3. Geoscientific Model Development, 2017, 10, 3411-3423.	3.6	23
32	State of the Climate in 2016. Bulletin of the American Meteorological Society, 2017, 98, Si-S280.	3.3	132
33	State of the Climate in 2015. Bulletin of the American Meteorological Society, 2016, 97, Si-S275.	3.3	142
34	Excess warming of a Central European lake driven by solar brightening. Water Resources Research, 2016, 52, 8103-8116.	4.2	87
35	Rapid and highly variable warming of lake surface waters around the globe. Geophysical Research Letters, 2015, 42, 10,773.	4.0	767
36	Characterisation of the Subaquatic Groundwater Discharge That Maintains the Permanent Stratification within Lake Kivu; East Africa. PLoS ONE, 2015, 10, e0121217.	2.5	25

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37	Drivers of deepâ€water renewal events observed over 13 years in the <scp>S</scp>outh <scp>B</scp>asin of <scp>L</scp>ake <scp>B</scp>aikal. Journal of Geophysical Research: Oceans, 2015, 120, 1508-1526.	2.6	20
38	Eutrophication of turbid tropical reservoirs: Scenarios of evolution of the reservoir of Cointzio, Mexico. Ecological Informatics, 2015, 29, 192-205.	5.2	15
39	The history of subaquatic volcanism recorded in the sediments of Lake Kivu; East Africa. Journal of Paleolimnology, 2015, 54, 137-152.	1.6	14
40	State of the Climate in 2014. Bulletin of the American Meteorological Society, 2015, 96, ES1-ES32.	3.3	78
41	Exploring, exploiting and evolving diversity of aquatic ecosystem models: a community perspective. Aquatic Ecology, 2015, 49, 513-548.	1.5	97
42	Heat flux modifications related to climateâ€induced warming of large European lakes. Water Resources Research, 2014, 50, 2072-2085.	4.2	76
43	Lake surface temperatures in a changing climate: a global sensitivity analysis. Climatic Change, 2014, 124, 301-315.	3.6	103
44	Modelling Lake Kivu water level variations over the last seven decades. Limnologica, 2014, 47, 21-33.	1.5	38
45	Lake-level rise in the late Pleistocene and active subaquatic volcanism since the Holocene in Lake Kivu, East African Rift. Geomorphology, 2014, 221, 274-285.	2.6	40
46	Large lakes as sources and sinks of anthropogenic heat: Capacities and limits. Water Resources Research, 2014, 50, 7285-7301.	4.2	24
47	Prediction of surface temperature in lakes with different morphology using air temperature. Limnology and Oceanography, 2014, 59, 2185-2202.	3.1	106
48	Revisiting Microstructure Sensor Responses with Implications for Double-Diffusive Fluxes. Journal of Atmospheric and Oceanic Technology, 2013, 30, 1907-1923.	1.3	33
49	Interface structure and flux laws in a natural double-diffusive layering. Journal of Geophysical Research: Oceans, 2013, 118, 6092-6106.	2.6	29
50	Stratification, Mixing and Transport Processes in Lake Kivu. , 2012, , 13-29.		23
51	Modeling of temperature and turbidity in a natural lake and a reservoir connected by pumpedâ€storage operations. Water Resources Research, 2012, 48, .	4.2	24
52	Lake Kivu. , 2012, , .		20
53	Assessing the Societal Benefits of Applied Research and Expert Consulting in Water Science and Technology. Gaia, 2012, 21, 95-101.	0.7	8
54	Comment on An additional challenge of Lake Kivu in Central Africa â€“ upward movement of the chemoclines by Finn Hirslund. Journal of Limnology, 2012, 71, .	1.1	1

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55	Comment on An additional challenge of Lake Kivu in Central Africa â€“ upward movement of the chemoclines by Finn Hirslund. Journal of Limnology, 2012, 71, 35.	1.1	8
56	Local Conditions Structure Unique Archaeal Communities in the Anoxic Sediments of Meromictic Lake Kivu. Microbial Ecology, 2012, 64, 291-310.	2.8	34
57	Lake Kivu: Past and Present. , 2012, , 1-11.		5
58	Methane Formation and Future Extraction in Lake Kivu. , 2012, , 165-180.		13
59	Lake Kivu Research: Conclusions and Perspectives. , 2012, , 181-190.		5
60	Nutrient Cycling in Lake Kivu. , 2012, , 31-45.		7
61	What prevents outgassing of methane to the atmosphere in Lake Tanganyika?. Journal of Geophysical Research, 2011, 116, .	3.3	22
62	Methane sources and sinks in Lake Kivu. Journal of Geophysical Research, 2011, 116, .	3.3	96
63	Abrupt onset of carbonate deposition in Lake Kivu during the 1960s: response to recent environmental changes. Journal of Paleolimnology, 2010, 44, 931-946.	1.6	39
64	Hypolimnetic oxygen consumption by sedimentâ€based reduced substances in former eutrophic lakes. Limnology and Oceanography, 2010, 55, 2073-2084.	3.1	77
65	Doubleâ€diffusive convection in Lake Kivu. Limnology and Oceanography, 2010, 55, 225-238.	3.1	63
66	Physical and biogeochemical limits to internal nutrient loading of meromictic Lake Kivu. Limnology and Oceanography, 2009, 54, 1863-1873.	3.1	47
67	Modeling lakes and reservoirs in the climate system. Limnology and Oceanography, 2009, 54, 2315-2329.	3.1	101
68	Large iron isotope fractionation at the oxicâ€“anoxic boundary in Lake Nyos. Earth and Planetary Science Letters, 2009, 285, 52-60.	4.4	70
69	Balancing nutrient inputs to Lake Kivu. Journal of Great Lakes Research, 2009, 35, 406-418.	1.9	60
70	Lake Baikal deepwater renewal mystery solved. Geophysical Research Letters, 2008, 35, .	4.0	45
71	Permanent lake stratification caused by a small tributary - the unusual case of Lej da San Murezzan. Journal of Limnology, 2008, 67, 35.	1.1	2
72	Eutrophication of ancient Lake Ohrid: Global warming amplifies detrimental effects of increased nutrient inputs. Limnology and Oceanography, 2007, 52, 338-353.	3.1	151

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73	Sources and sinks of methane in Lake Baikal: A synthesis of measurements and modeling. Limnology and Oceanography, 2007, 52, 1824-1837.	3.1	52
74	Comparing effects of oligotrophication and upstream hydropower dams on plankton and productivity in perialpine lakes. Water Resources Research, 2007, 43, .	4.2	22
75	Effects of alpine hydropower operations on primary production in a downstream lake. Aquatic Sciences, 2007, 69, 240-256.	1.5	34
76	Simulation of CO2concentrations, temperature, and stratification in Lake Nyos for different degassing scenarios. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	20
77	Effects of upstream hydropower operation on riverine particle transport and turbidity in downstream lakes. Water Resources Research, 2006, 42, .	4.2	70
78	The Burgundyâ€blood phenomenon: a model of buoyancy change explains autumnal waterblooms by Planktothrix rubescens in Lake ZÃ¼rich. New Phytologist, 2006, 169, 109-122.	7.3	63
79	Internal carbon and nutrient cycling in Lake Baikal: sedimentation, upwelling, and early diagenesis. Global and Planetary Change, 2005, 46, 101-124.	3.5	78
80	Weak mixing in Lake Kivu: New insights indicate increasing risk of uncontrolled gas eruption. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	2.5	130
81	Double-diffusive convection in Lake Nyos, Cameroon. Deep-Sea Research Part I: Oceanographic Research Papers, 2004, 51, 1097-1111.	1.4	42
82	Development and sensitivity analysis of a model for assessing stratification and safety of Lake Nyos during artificial degassing. Ocean Dynamics, 2003, 53, 288-301.	2.2	33
83	N2O/222Rn - soil flux calibration in the stable nocturnal surface layer. Geophysical Research Letters, 2002, 29, 12-1.	4.0	20
84	Coupling soilâ€“plantâ€“atmosphere exchange of ammonia with ecosystem functioning in grasslands. Ecological Modelling, 2002, 158, 83-110.	2.5	80
85	The physical structure and dynamics of a deep, meromictic crater lake (Lac Pavin, France). Hydrobiologia, 2002, 487, 111-136.	2.0	57
86	Title is missing!. Nutrient Cycling in Agroecosystems, 2001, 60, 177-187.	2.2	55
87	Nitrous Oxide Concentrations in the Soil of a Mown Grassland: Comparison of Model Results with Soil Profile Measurements. , 2001, , 437-446.		2
88	An experimental determination of the scale length of N2O in the soil of a grassland. Journal of Geophysical Research, 2000, 105, 12095-12103.	3.3	51