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	Rapid and highly variable warming of lake surface waters around the globe. Geophysical Research Letters, 2015, 42, 10,773.	4.0	767
2	Widespread deoxygenation of temperate lakes. Nature, 2021, 594, 66-70.	27.8	267
3	State of the Climate in 2018. Bulletin of the American Meteorological Society, 2019, 100, Si-S306.	3.3	168
4	Eutrophication of ancient Lake Ohrid: Global warming amplifies detrimental effects of increased nutrient inputs. Limnology and Oceanography, 2007, 52, 338-353.	3.1	151
5	State of the Climate in 2015. Bulletin of the American Meteorological Society, 2016, 97, Si-S275.	3.3	142
6	State of the Climate in 2016. Bulletin of the American Meteorological Society, 2017, 98, Si-S280.	3.3	132
7	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
8	Warming of Central European lakes and their response to the 1980s climate regime shift. Climatic Change, 2017, 142, 505-520.	3.6	108
9	Prediction of surface temperature in lakes with different morphology using air temperature. Limnology and Oceanography, 2014, 59, 2185-2202.	3.1	106
10	Lake surface temperatures in a changing climate: a global sensitivity analysis. Climatic Change, 2014, 124, 301-315.	3.6	103
11	Modeling lakes and reservoirs in the climate system. Limnology and Oceanography, 2009, 54, 2315-2329.	3.1	101
12	Exploring, exploiting and evolving diversity of aquatic ecosystem models: a community perspective. Aquatic Ecology, 2015, 49, 513-548.	1.5	97
13	Methane sources and sinks in Lake Kivu. Journal of Geophysical Research, 2011, 116, .	3.3	96
14	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
15	Excess warming of a Central European lake driven by solar brightening. Water Resources Research, 2016, 52, 8103-8116.	4.2	87
16	Climate change drives widespread shifts in lake thermal habitat. Nature Climate Change, 2021, 11, 521-529.	18.8	87
17	Widespread diminishing anthropogenic effects on calcium in freshwaters. Scientific Reports, 2019, 9, 10450.	3.3	84
18	Coupling soilâ€“plantâ€“atmosphere exchange of ammonia with ecosystem functioning in grasslands. Ecological Modelling, 2002, 158, 83-110.	2.5	80

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19	Internal carbon and nutrient cycling in Lake Baikal: sedimentation, upwelling, and early diagenesis. Global and Planetary Change, 2005, 46, 101-124.	3.5	78
20	State of the Climate in 2014. Bulletin of the American Meteorological Society, 2015, 96, ES1-ES32.	3.3	78
21	Hypolimnetic oxygen consumption by sedimentâ€based reduced substances in former eutrophic lakes. Limnology and Oceanography, 2010, 55, 2073-2084.	3.1	77
22	Heat flux modifications related to climateâ€induced warming of large European lakes. Water Resources Research, 2014, 50, 2072-2085.	4.2	76
23	Basinâ€scale effects of small hydropower on biodiversity dynamics. Frontiers in Ecology and the Environment, 2018, 16, 397-404.	4.0	74
24	Effects of upstream hydropower operation on riverine particle transport and turbidity in downstream lakes. Water Resources Research, 2006, 42, .	4.2	70
25	Large iron isotope fractionation at the oxicâ€“anoxic boundary in Lake Nyos. Earth and Planetary Science Letters, 2009, 285, 52-60.	4.4	70
26	Substantial increase in minimum lake surface temperatures under climate change. Climatic Change, 2019, 155, 81-94.	3.6	66
27	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
28	Doubleâ€diffusive convection in Lake Kivu. Limnology and Oceanography, 2010, 55, 225-238.	3.1	63
29	Balancing nutrient inputs to Lake Kivu. Journal of Great Lakes Research, 2009, 35, 406-418.	1.9	60
30	The physical structure and dynamics of a deep, meromictic crater lake (Lac Pavin, France). Hydrobiologia, 2002, 487, 111-136.	2.0	57
31	Deeper waters are changing less consistently than surface waters in a global analysis of 102 lakes. Scientific Reports, 2020, 10, 20514.	3.3	56
32	Title is missing!. Nutrient Cycling in Agroecosystems, 2001, 60, 177-187.	2.2	55
33	Sources and sinks of methane in Lake Baikal: A synthesis of measurements and modeling. Limnology and Oceanography, 2007, 52, 1824-1837.	3.1	52
34	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
35	Physical and biogeochemical limits to internal nutrient loading of meromictic Lake Kivu. Limnology and Oceanography, 2009, 54, 1863-1873.	3.1	47
36	Lake Baikal deepwater renewal mystery solved. Geophysical Research Letters, 2008, 35, .	4.0	45

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37	Double-diffusive convection in Lake Nyos, Cameroon. Deep-Sea Research Part I: Oceanographic Research Papers, 2004, 51, 1097-1111.	1.4	42
38	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
39	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
40	Modelling Lake Kivu water level variations over the last seven decades. Limnologica, 2014, 47, 21-33.	1.5	38
41	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
42	The vulnerability of lakes to climate change along an altitudinal gradient. Communications Earth & Environment, 2021, 2, .	6.8	36
43	Effects of alpine hydropower operations on primary production in a downstream lake. Aquatic Sciences, 2007, 69, 240-256.	1.5	34
44	Local Conditions Structure Unique Archaeal Communities in the Anoxic Sediments of Meromictic Lake Kivu. Microbial Ecology, 2012, 64, 291-310.	2.8	34
45	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
46	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
47	Revisiting Microstructure Sensor Responses with Implications for Double-Diffusive Fluxes. Journal of Atmospheric and Oceanic Technology, 2013, 30, 1907-1923.	1.3	33
48	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
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	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
51	Characterisation of the Subaquatic Groundwater Discharge That Maintains the Permanent Stratification within Lake Kivu; East Africa. PLoS ONE, 2015, 10, e0121217.	2.5	25
52	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
53	Large lakes as sources and sinks of anthropogenic heat: Capacities and limits. Water Resources Research, 2014, 50, 7285-7301.	4.2	24
54	Stratification, Mixing and Transport Processes in Lake Kivu. , 2012, , 13-29.		23

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55	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
56	Using lakes and rivers for extraction and disposal of heat: Estimate of regional potentials. Renewable Energy, 2019, 134, 330-342.	8.9	23
57	Comparing effects of oligotrophication and upstream hydropower dams on plankton and productivity in perialpine lakes. Water Resources Research, 2007, 43, .	4.2	22
58	What prevents outgassing of methane to the atmosphere in Lake Tanganyika?. Journal of Geophysical Research, 2011, 116, .	3.3	22
59	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
60	N2O/222Rn - soil flux calibration in the stable nocturnal surface layer. Geophysical Research Letters, 2002, 29, 12-1.	4.0	20
61	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
62	Lake Kivu. , 2012, , .		20
63	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
64	Effects of Lakeâ€“Reservoir Pumped-Storage Operations on Temperature and Water Quality. Sustainability, 2018, 10, 1968.	3.2	17
65	Impacts of using lakes and rivers for extraction and disposal of heat. Wiley Interdisciplinary Reviews: Water, 2018, 5, e1295.	6.5	17
66	Small hydropower goes unchecked. Frontiers in Ecology and the Environment, 2019, 17, 256-258.	4.0	17
67	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
68	Lake Modeling Reveals Management Opportunities for Improving Water Quality Downstream of Transboundary Tropical Dams. Water Resources Research, 2021, 57, e2020WR027465.	4.2	16
69	Eutrophication of turbid tropical reservoirs: Scenarios of evolution of the reservoir of Cointzio, Mexico. Ecological Informatics, 2015, 29, 192-205.	5.2	15
70	The history of subaquatic volcanism recorded in the sediments of Lake Kivu; East Africa. Journal of Paleolimnology, 2015, 54, 137-152.	1.6	14
71	Methane Formation and Future Extraction in Lake Kivu. , 2012, , 165-180.		13
72	Modeling sediment oxygen demand in a highly productive lake under various trophic scenarios. PLoS ONE, 2019, 14, e0222318.	2.5	12

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73	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
74	Macroinvertebrate Recovery to Varying Hydropeaking Frequency: A Small Hydropower Plant Experiment. Frontiers in Environmental Science, 2021, 8, .	3.3	10
75	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
76	Combined effects of pumped-storage operation and climate change on thermal structure and water quality. Climatic Change, 2019, 152, 413-429.	3.6	9
77	Assessing the Societal Benefits of Applied Research and Expert Consulting in Water Science and Technology. Gaia, 2012, 21, 95-101.	0.7	8
78	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
79	Heat Budget of Lakes. , 2022, , 467-473.		8
80	Missing atmospheric noble gases in a large, tropical lake: The case of Lake Kivu, East-Africa. Chemical Geology, 2020, 532, 119374.	3.3	7
81	Nutrient Cycling in Lake Kivu. , 2012, , 31-45.		7
82	The role of double diffusion for the heat and salt balance in Lake Kivu. Limnology and Oceanography, 2019, 64, 650-660.	3.1	6
83	Lake Kivu: Past and Present. , 2012, , 1-11.		5
84	Lake Kivu Research: Conclusions and Perspectives. , 2012, , 181-190.		5
85	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
86	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
87	Nitrous Oxide Concentrations in the Soil of a Mown Grassland: Comparison of Model Results with Soil Profile Measurements. , 2001, , 437-446.		2
88	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