

Andreas Schmittner

List of Publications by Year in descending order

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Version: 2024-02-01

100
papers

8,200
citations

66343

42
h-index

49909

87
g-index

137
all docs

137
docs citations

137
times ranked

7413
citing authors

#	ARTICLE	IF	CITATIONS
1	Global warming preceded by increasing carbon dioxide concentrations during the last deglaciation. <i>Nature</i> , 2012, 484, 49-54.	27.8	1,141
2	The UVic earth system climate model: Model description, climatology, and applications to past, present and future climates. <i>Atmosphere - Ocean</i> , 2001, 39, 361-428.	1.6	604
3	Influence of CO ₂ emission rates on the stability of the thermohaline circulation. <i>Nature</i> , 1997, 388, 862-865.	27.8	426
4	Future changes in climate, ocean circulation, ecosystems, and biogeochemical cycling simulated for a business-as-usual CO ₂ emission scenario until year 4000 AD. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	4.9	327
5	Global Warming and Marine Carbon Cycle Feedbacks on Future Atmospheric CO ₂ . <i>Science</i> , 1999, 284, 464-467.	12.6	284
6	Ice-shelf collapse from subsurface warming as a trigger for Heinrich events. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 13415-13419.	7.1	278
7	Decline of the marine ecosystem caused by a reduction in the Atlantic overturning circulation. <i>Nature</i> , 2005, 434, 628-633.	27.8	254
8	A review of nitrogen isotopic alteration in marine sediments. <i>Paleoceanography</i> , 2012, 27, .	3.0	240
9	Model projections of the North Atlantic thermohaline circulation for the 21st century assessed by observations. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	237
10	Simulated 21st century's increase in oceanic suboxia by CO ₂ -enhanced biotic carbon export. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	4.9	234
11	Climate Sensitivity Estimated from Temperature Reconstructions of the Last Glacial Maximum. <i>Science</i> , 2011, 334, 1385-1388.	12.6	212
12	Simulating the global distribution of nitrogen isotopes in the ocean. <i>Global Biogeochemical Cycles</i> , 2010, 24, .	4.9	186
13	Glacial greenhouse-gas fluctuations controlled by ocean circulation changes. <i>Nature</i> , 2008, 456, 373-376.	27.8	179
14	Coupling of the hemispheres in observations and simulations of glacial climate change. <i>Quaternary Science Reviews</i> , 2003, 22, 659-671.	3.0	150
15	Fate of the Atlantic Meridional Overturning Circulation: Strong decline under continued warming and Greenland melting. <i>Geophysical Research Letters</i> , 2016, 43, 12,252.	4.0	132
16	Instability of Glacial Climate in a Model of the Ocean- Atmosphere-Cryosphere System. <i>Science</i> , 2002, 295, 1489-1493.	12.6	131
17	Biology and air-sea gas exchange controls on the distribution of carbon isotope ratios ($\delta^{13}C$) in the ocean. <i>Biogeosciences</i> , 2013, 10, 5793-5816.	3.3	130
18	Simulating the impact of the Panamanian seaway closure on ocean circulation, marine productivity and nutrient cycling. <i>Earth and Planetary Science Letters</i> , 2006, 246, 367-380.	4.4	127

#	ARTICLE	IF	CITATIONS
19	A global model of the marine ecosystem for long-term simulations: Sensitivity to ocean mixing, buoyancy forcing, particle sinking, and dissolved organic matter cycling. <i>Global Biogeochemical Cycles</i> , 2005, 19, .	4.9	109
20	Enhanced Atlantic freshwater export during El Niño. <i>Geophysical Research Letters</i> , 2000, 27, 1163-1166.	4.0	108
21	The Atlantic–Pacific Seesaw. <i>Journal of Climate</i> , 2004, 17, 2033-2038.	3.2	108
22	Large fluctuations of dissolved oxygen in the Indian and Pacific oceans during Dansgaard–Oeschger oscillations caused by variations of North Atlantic Deep Water subduction. <i>Paleoceanography</i> , 2007, 22, .	3.0	104
23	The Stability of the Thermohaline Circulation in Global Warming Experiments. <i>Journal of Climate</i> , 1999, 12, 1117-1133.	3.2	92
24	Mid-Pliocene shifts in ocean overturning circulation and the onset of Quaternary-style climates. <i>Climate of the Past</i> , 2009, 5, 269-283.	3.4	88
25	Glacial Atlantic overturning increased by wind stress in climate models. <i>Geophysical Research Letters</i> , 2015, 42, 9862-9868.	4.0	88
26	The acceleration of oceanic denitrification during deglacial warming. <i>Nature Geoscience</i> , 2013, 6, 579-584.	12.9	84
27	Southwest Atlantic water mass evolution during the last deglaciation. <i>Paleoceanography</i> , 2015, 30, 477-494.	3.0	75
28	Air-sea disequilibrium enhances ocean carbon storage during glacial periods. <i>Science Advances</i> , 2019, 5, eaaw4981.	10.3	73
29	Early deglacial Atlantic overturning decline and its role in atmospheric CO ₂ rise inferred from carbon isotopes ($\delta^{13}\text{C}$). <i>Climate of the Past</i> , 2015, 11, 135-152.	3.4	68
30	Centennial-scale Holocene climate variations amplified by Antarctic Ice Sheet discharge. <i>Nature</i> , 2017, 541, 72-76.	27.8	68
31	Effects of Mountains and Ice Sheets on Global Ocean Circulation*. <i>Journal of Climate</i> , 2011, 24, 2814-2829.	3.2	67
32	Complementary constraints from carbon (^{13}C) and nitrogen (^{15}N) isotopes on the glacial ocean's soft-tissue biological pump. <i>Paleoceanography</i> , 2016, 31, 669-693.	3.0	67
33	Calibration of the carbon isotope composition ($\delta^{13}\text{C}$) of benthic foraminifera. <i>Paleoceanography</i> , 2017, 32, 512-530.	3.0	63
34	Changes in equatorial Pacific thermocline depth in response to Panamanian seaway closure: Insights from a multi-model study. <i>Earth and Planetary Science Letters</i> , 2012, 317-318, 76-84.	4.4	60
35	Dependence of multiple climate states on ocean mixing parameters. <i>Geophysical Research Letters</i> , 2001, 28, 1027-1030.	4.0	57
36	Isotopic constraints on the pre-industrial oceanic nitrogen budget. <i>Biogeosciences</i> , 2013, 10, 5889-5910.	3.3	57

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37	Southern Ocean control of glacial AMOC stability and Dansgaard-Oeschger interstadial duration. <i>Paleoceanography</i> , 2015, 30, 1595-1612.	3.0	55
38	Weak overturning circulation and high Southern Ocean nutrient utilization maximized glacial ocean carbon. <i>Earth and Planetary Science Letters</i> , 2018, 496, 47-56.	4.4	55
39	Ventilation of the North Atlantic Ocean during the Last Glacial Maximum: A comparison between simulated and observed radiocarbon ages. <i>Paleoceanography</i> , 2003, 18, n/a-n/a.	3.0	51
40	Glacial ocean overturning intensified by tidal mixing in a global circulation model. <i>Geophysical Research Letters</i> , 2015, 42, 4014-4022.	4.0	51
41	Nonlinearity of Carbon Cycle Feedbacks. <i>Journal of Climate</i> , 2011, 24, 4255-4275.	3.2	49
42	Phasing of millennial-scale climate variability in the Pacific and Atlantic Oceans. <i>Science</i> , 2020, 370, 716-720.	12.6	49
43	Mechanisms for an ~ 47 -kyr climate and sea-level oscillation during marine isotope stage 3. <i>Geophysical Monograph Series</i> , 2007, , 209-246.	0.1	47
44	Deep-water circulation changes lead North Atlantic climate during deglaciation. <i>Nature Communications</i> , 2019, 10, 1272.	12.8	47
45	^{14}C reservoir ages show deglacial changes in ocean currents and carbon cycle. <i>Geophysical Monograph Series</i> , 2007, , 175-196.	0.1	46
46	Mechanisms of millennial-scale atmospheric CO_2 change in numerical model simulations. <i>Quaternary Science Reviews</i> , 2019, 220, 30-74.	3.0	46
47	Forcing of the deep ocean circulation in simulations of the Last Glacial Maximum. <i>Paleoceanography</i> , 2002, 17, 5-15-15.	3.0	45
48	Sensitivity of the thermohaline circulation to tropical and high latitude freshwater forcing during the last glacial-interglacial cycle. <i>Paleoceanography</i> , 2002, 17, 7-17-12.	3.0	43
49	Evaluation of Different Methods to Assess Model Projections of the Future Evolution of the Atlantic Meridional Overturning Circulation. <i>Journal of Climate</i> , 2007, 20, 2121-2132.	3.2	43
50	Evaluation of a present-day climate simulation with a new coupled atmosphere-ocean model GENMOM. <i>Geoscientific Model Development</i> , 2011, 4, 69-83.	3.6	43
51	Southern Ocean sea ice and radiocarbon ages of glacial bottom waters. <i>Earth and Planetary Science Letters</i> , 2003, 213, 53-62.	4.4	42
52	On the Role of Wind-Driven Sea Ice Motion on Ocean Ventilation. <i>Journal of Physical Oceanography</i> , 2002, 32, 3376-3395.	1.7	39
53	Last Century Warming Over the Canadian Atlantic Shelves Linked to Weak Atlantic Meridional Overturning Circulation. <i>Geophysical Research Letters</i> , 2018, 45, 12,376.	4.0	33
54	Using tracer observations to reduce the uncertainty of ocean diapycnal mixing and climate carbon cycle projections. <i>Global Biogeochemical Cycles</i> , 2009, 23, .	4.9	31

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55	PaCTS 1.0: A Crowdsourced Reporting Standard for Paleoclimate Data. <i>Paleoceanography and Paleoclimatology</i> , 2019, 34, 1570-1596.	2.9	30
56	Atlantic deep circulation controlled by freshening in the Southern Ocean. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	29
57	Nitrogen isotope simulations show the importance of atmospheric iron deposition for nitrogen fixation across the Pacific Ocean. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	29
58	A Three-Dimensional Model of the Marine Nitrogen Cycle during the Last Glacial Maximum Constrained by Sedimentary Isotopes. <i>Frontiers in Marine Science</i> , 2017, 4, .	2.5	29
59	Phasing of millennial climate events and northeast Atlantic deep-water temperature change since 50 ka BP. <i>Geophysical Monograph Series</i> , 2007, , 197-208.	0.1	28
60	What is the skill of ocean tracers in reducing uncertainties about ocean diapycnal mixing and projections of the Atlantic Meridional Overturning Circulation?. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	28
61	Abrupt change in atmospheric CO ₂ during the last ice age. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	28
62	Evaluation of the University of Victoria Earth System Climate Model version 2.10 (UVic ESCM 2.10). <i>Geoscientific Model Development</i> , 2020, 13, 4183-4204.	3.6	23
63	The effect of Denmark Strait overflow on the Atlantic Meridional Overturning Circulation. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.	4.0	22
64	Present-day manifestation of the Nordic Seas Overflows. <i>Geophysical Monograph Series</i> , 2007, , 75-89.	0.1	21
65	Combined Effects of Atmospheric and Seafloor Iron Fluxes to the Glacial Ocean. <i>Paleoceanography</i> , 2017, 32, 1204-1218.	3.0	21
66	Carbon storage in the mid-depth Atlantic during millennial-scale climate events. <i>Paleoceanography</i> , 2017, 32, 780-795.	3.0	21
67	A Seasonally Forced Ocean-Atmosphere Model for Paleoclimate Studies. <i>Journal of Climate</i> , 2001, 14, 1055-1068.	3.2	20
68	Evidence for a biological pump driver of atmospheric CO ₂ rise during Heinrich Stadial 1. <i>Geophysical Research Letters</i> , 2016, 43, 12,242.	4.0	20
69	Glacial Ice Sheet Extent Effects on Modeled Tidal Mixing and the Global Overturning Circulation. <i>Paleoceanography and Paleoclimatology</i> , 2019, 34, 1437-1454.	2.9	20
70	An improved parameterization of tidal mixing for ocean models. <i>Geoscientific Model Development</i> , 2014, 7, 211-224.	3.6	18
71	Explicit Planktic Calcifiers in the University of Victoria Earth System Climate Model, Version 2.9. <i>Atmosphere - Ocean</i> , 2015, 53, 332-350.	1.6	18
72	Glacial deep ocean deoxygenation driven by biologically mediated air-sea disequilibrium. <i>Nature Geoscience</i> , 2021, 14, 43-50.	12.9	18

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73	Impact of the ocean's Overturning circulation on atmospheric CO ₂ . Geophysical Monograph Series, 2007, , 315-334.	0.1	17
74	Calcium carbonate production response to future ocean warming and acidification. Biogeosciences, 2012, 9, 2351-2364.	3.3	17
75	The past and future ocean circulation from a contemporary perspective. Geophysical Monograph Series, 2007, , 53-74.	0.1	16
76	Carbon isotope constraints on glacial Atlantic meridional overturning: Strength vs depth. Quaternary Science Reviews, 2021, 257, 106844.	3.0	16
77	Antarctic stratification, atmospheric water vapor, and Heinrich Events: A hypothesis for Late Pleistocene deglaciations. Geophysical Monograph Series, 2007, , 335-349.	0.1	14
78	Correction to "Future changes in climate, ocean circulation, ecosystems, and biogeochemical cycling simulated for a business-as-usual CO ₂ emission scenario until year 4000 AD". Global Biogeochemical Cycles, 2009, 23, .	4.9	14
79	Constraining Global Marine Iron Sources and Ligand-Mediated Scavenging Fluxes With GEOTRACES Dissolved Iron Measurements in an Ocean Biogeochemical Model. Global Biogeochemical Cycles, 2021, 35, e2021GB006948.	4.9	14
80	Simulations of Heinrich Events in a coupled ocean-atmosphere-sea ice model. Geophysical Research Letters, 2002, 29, 16-1-16-3.	4.0	13
81	Decadal to multidecadal variability of the Atlantic MOC: Mechanisms and predictability. Geophysical Monograph Series, 2007, , 149-166.	0.1	13
82	Ongoing Increase in Eastern Tropical North Pacific Denitrification as Interpreted Through the Santa Barbara Basin Sedimentary ¹⁵ N Record. Paleoceanography and Paleoclimatology, 2019, 34, 1554-1567.	2.9	12
83	Millennial-scale interhemispheric asymmetry of low-latitude precipitation: Speleothem evidence and possible high-latitude forcing. Geophysical Monograph Series, 2007, , 279-294.	0.1	9
84	Modelling carbon cycle feedbacks during abrupt climate change. Quaternary Science Reviews, 2004, 23, 431-448.	3.0	8
85	Validation of parametrisations for the meridional energy and moisture transport used in simple climate models. Climate Dynamics, 2000, 16, 63-77.	3.8	7
86	Assessing the effects of ocean diffusivity and climate sensitivity on the rate of global climate change. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 17733.	1.6	7
87	Climatic Consequences of a Pine Island Glacier Collapse. Journal of Climate, 2015, 28, 9221-9234.	3.2	7
88	Active North Atlantic deepwater formation during Heinrich Stadial 1. Quaternary Science Reviews, 2021, 270, 107145.	3.0	7
89	Less Remineralized Carbon in the Intermediate-Depth South Atlantic During Heinrich Stadial 1. Paleoceanography and Paleoclimatology, 2019, 34, 1218-1233.	2.9	6
90	Enhanced vertical mixing in the glacial ocean inferred from sedimentary carbon isotopes. Communications Earth & Environment, 2021, 2, .	6.8	6

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91	North Atlantic intermediate depth variability during the Younger Dryas: Evidence from benthic foraminiferal Mg/Ca and the GFDL R30 Coupled Climate Model. <i>Geophysical Monograph Series</i> , 2007, , 247-263.	0.1	5
92	Response to Comment on "Climate Sensitivity Estimated from Temperature Reconstructions of the Last Glacial Maximum". <i>Science</i> , 2012, 337, 1294-1294.	12.6	5
93	World Atlas of late Quaternary Foraminiferal Oxygen and Carbon Isotope Ratios. <i>Earth System Science Data</i> , 2022, 14, 2553-2611.	9.9	5
94	Title is missing!. <i>Integrated Assessment: an International Journal</i> , 2000, 1, 301-306.	0.8	4
95	Musings about the connection between thermohaline circulation and climate. <i>Geophysical Monograph Series</i> , 2007, , 265-278.	0.1	4
96	Effect of the Greenland ice-sheet melting on the response and stability of the AMOC in the Next centuries. <i>Geophysical Monograph Series</i> , 2007, , 383-392.	0.1	4
97	A cloud feedback emulator (CFE, version 1.0) for an intermediate complexity model. <i>Geoscientific Model Development</i> , 2017, 10, 945-958.	3.6	2
98	Projected reversal of oceanic stable carbon isotope ratio depth gradient with continued anthropogenic carbon emissions. <i>Communications Earth & Environment</i> , 2022, 3, .	6.8	2
99	Response to the comments by Peter Huybers. <i>Quaternary Science Reviews</i> , 2004, 23, 210-212.	3.0	1
100	The smoking gun for Atlantic circulation changes. <i>Science</i> , 2016, 353, 445-446.	12.6	1