Andreas Schmittner

List of Publications by Year
in descending order

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100	8,200	66234	49773
papers	citations	42 h-index	87 g-index

137	137	137	7413
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Global warming preceded by increasing carbon dioxide concentrations during the last deglaciation. Nature, 2012, 484, 49-54.	13.7	1,141
2	The UVic earth system climate model: Model description, climatology, and applications to past, present and future climates. Atmosphere - Ocean, 2001, 39, 361-428.	0.6	604
3	Influence of CO2 emission rates on the stability of the thermohaline circulation. Nature, 1997, 388, 862-865.	13.7	426
4	Future changes in climate, ocean circulation, ecosystems, and biogeochemical cycling simulated for a businessâ€asâ€usual CO₂ emission scenario until year 4000 AD. Global Biogeochemical Cycles, 2008, 22, .	1.9	327
5	Global Warming and Marine Carbon Cycle Feedbacks on Future Atmospheric CO2. Science, 1999, 284, 464-467.	6.0	284
6	Ice-shelf collapse from subsurface warming as a trigger for Heinrich events. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13415-13419.	3.3	278
7	Decline of the marine ecosystem caused by a reduction in the Atlantic overturning circulation. Nature, 2005, 434, 628-633.	13.7	254
8	A review of nitrogen isotopic alteration in marine sediments. Paleoceanography, 2012, 27, .	3.0	240
9	Model projections of the North Atlantic thermohaline circulation for the 21st century assessed by observations. Geophysical Research Letters, 2005, 32, .	1.5	237
10	Simulated 21st century's increase in oceanic suboxia by CO₂â€enhanced biotic carbon export. Global Biogeochemical Cycles, 2008, 22, .	1.9	234
11	Climate Sensitivity Estimated from Temperature Reconstructions of the Last Glacial Maximum. Science, 2011, 334, 1385-1388.	6.0	212
12	Simulating the global distribution of nitrogen isotopes in the ocean. Global Biogeochemical Cycles, 2010, 24, .	1.9	186
13	Glacial greenhouse-gas fluctuations controlled by ocean circulation changes. Nature, 2008, 456, 373-376.	13.7	179
14	Coupling of the hemispheres in observations and simulations of glacial climate change. Quaternary Science Reviews, 2003, 22, 659-671.	1.4	150
15	Fate of the Atlantic Meridional Overturning Circulation: Strong decline under continued warming and Greenland melting. Geophysical Research Letters, 2016, 43, 12,252.	1.5	132
16	Instability of Glacial Climate in a Model of the Ocean- Atmosphere-Cryosphere System. Science, 2002, 295, 1489-1493.	6.0	131
17	Biology and airâ€“sea gas exchange controls on the distribution of carbon isotope ratios (Î´¹³C) in the ocean. Biogeosciences, 2013, 10, 5793-5816.	1.3	130
18	Simulating the impact of the Panamanian seaway closure on ocean circulation, marine productivity and nutrient cycling. Earth and Planetary Science Letters, 2006, 246, 367-380.	1.8	127

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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. Global Biogeochemical Cycles, 2005, 19, .	1.9	109
20	Enhanced Atlantic freshwater export during El NiÃ±o. Geophysical Research Letters, 2000, 27, 1163-1166.	1.5	108
21	The Atlanticâ€“Pacific Seesaw. Journal of Climate, 2004, 17, 2033-2038.	1.2	108
22	Large fluctuations of dissolved oxygen in the Indian and Pacific oceans during Dansgaardâ€Oeschger oscillations caused by variations of North Atlantic Deep Water subduction. Paleoceanography, 2007, 22, .	3.0	104
23	The Stability of the Thermohaline Circulation in Global Warming Experiments. Journal of Climate, 1999, 12, 1117-1133.	1.2	92
24	Mid-Pliocene shifts in ocean overturning circulation and the onset of Quaternary-style climates. Climate of the Past, 2009, 5, 269-283.	1.3	88
25	Glacial Atlantic overturning increased by wind stress in climate models. Geophysical Research Letters, 2015, 42, 9862-9868.	1.5	88
26	The acceleration of oceanic denitrification during deglacial warming. Nature Geoscience, 2013, 6, 579-584.	5.4	84
27	Southwest Atlantic water mass evolution during the last deglaciation. Paleoceanography, 2015, 30, 477-494.	3.0	75
28	Air-sea disequilibrium enhances ocean carbon storage during glacial periods. Science Advances, 2019, 5, eaaw4981.	4.7	73
29	Early deglacial Atlantic overturning decline and its role in atmospheric CO₂ rise inferred from carbon isotopes (Î´¹³C). Climate of the Past, 2015, 11, 135-152.	1.3	68
30	Centennial-scale Holocene climate variations amplified by Antarctic Ice Sheet discharge. Nature, 2017, 541, 72-76.	13.7	68
31	Effects of Mountains and Ice Sheets on Global Ocean Circulation*. Journal of Climate, 2011, 24, 2814-2829.	1.2	67
32	Complementary constraints from carbon (¹³C) and nitrogen (¹⁵N) isotopes on the glacial ocean's softâ€tissue biological pump. Paleoceanography, 2016, 31, 669-693.	3.0	67
33	Calibration of the carbon isotope composition (Î´¹³C) of benthic foraminifera. Paleoceanography, 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. Earth and Planetary Science Letters, 2012, 317-318, 76-84.	1.8	60
35	Dependence of multiple climate states on ocean mixing parameters. Geophysical Research Letters, 2001, 28, 1027-1030.	1.5	57
36	Isotopic constraints on the pre-industrial oceanic nitrogen budget. Biogeosciences, 2013, 10, 5889-5910.	1.3	57

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37	Southern Ocean control of glacial AMOC stability and Dansgaard-Oeschger interstadial duration. Paleoceanography, 2015, 30, 1595-1612.	3.0	55
38	Weak overturning circulation and high Southern Ocean nutrient utilization maximized glacial ocean carbon. Earth and Planetary Science Letters, 2018, 496, 47-56.	1.8	55
39	Ventilation of the North Atlantic Ocean during the Last Glacial Maximum: A comparison between simulated and observed radiocarbon ages. Paleoceanography, 2003, 18, n/a-n/a.	3.0	51
40	Glacial ocean overturning intensified by tidal mixing in a global circulation model. Geophysical Research Letters, 2015, 42, 4014-4022.	1.5	51
41	Nonlinearity of Carbon Cycle Feedbacks. Journal of Climate, 2011, 24, 4255-4275.	1.2	49
42	Phasing of millennial-scale climate variability in the Pacific and Atlantic Oceans. Science, 2020, 370, 716-720.	6.0	49
43	Mechanisms for an â^¼7-kyr climate and sea-level oscillation during marine isotope stage 3. Geophysical Monograph Series, 2007, , 209-246.	0.1	47
44	Deep-water circulation changes lead North Atlantic climate during deglaciation. Nature Communications, 2019, 10, 1272.	5.8	47
45	14C reservoir ages show deglacial changes in ocean currents and carbon cycle. Geophysical Monograph Series, 2007, , 175-196.	0.1	46
46	Mechanisms of millennial-scale atmospheric CO2 change in numerical model simulations. Quaternary Science Reviews, 2019, 220, 30-74.	1.4	46
47	Forcing of the deep ocean circulation in simulations of the Last Glacial Maximum. Paleoceanography, 2002, 17, 5-1-5-15.	3.0	45
48	Sensitivity of the thermohaline circulation to tropical and high latitude freshwater forcing during the last glacial-interglacial cycle. Paleoceanography, 2002, 17, 7-1-7-12.	3.0	43
49	Evaluation of Different Methods to Assess Model Projections of the Future Evolution of the Atlantic Meridional Overturning Circulation. Journal of Climate, 2007, 20, 2121-2132.	1.2	43
50	Evaluation of a present-day climate simulation with a new coupled atmosphere-ocean model GENMOM. Geoscientific Model Development, 2011, 4, 69-83.	1.3	43
51	Southern Ocean sea ice and radiocarbon ages of glacial bottom waters. Earth and Planetary Science Letters, 2003, 213, 53-62.	1.8	42
52	On the Role of Wind-Driven Sea Ice Motion on Ocean Ventilation. Journal of Physical Oceanography, 2002, 32, 3376-3395.	0.7	39
53	Last Century Warming Over the Canadian Atlantic Shelves Linked to Weak Atlantic Meridional Overturning Circulation. Geophysical Research Letters, 2018, 45, 12,376.	1.5	33
54	Using tracer observations to reduce the uncertainty of ocean diapycnal mixing and climateâ€“carbon cycle projections. Global Biogeochemical Cycles, 2009, 23, .	1.9	31

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55	PaCTS 1.0: A Crowdsourced Reporting Standard for Paleoclimate Data. Paleoceanography and Paleoclimatology, 2019, 34, 1570-1596.	1.3	30
56	Atlantic deep circulation controlled by freshening in the Southern Ocean. Geophysical Research Letters, 2003, 30, .	1.5	29
57	Nitrogen isotope simulations show the importance of atmospheric iron deposition for nitrogen fixation across the Pacific Ocean. Geophysical Research Letters, 2010, 37, .	1.5	29
58	A Three-Dimensional Model of the Marine Nitrogen Cycle during the Last Glacial Maximum Constrained by Sedimentary Isotopes. Frontiers in Marine Science, 2017, 4, .	1.2	29
59	Phasing of millennial climate events and northeast Atlantic deep-water temperature change since 50 ka BP. Geophysical Monograph Series, 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?. Journal of Geophysical Research, 2010, 115, .	3.3	28
61	Abrupt change in atmospheric CO₂ during the last ice age. Geophysical Research Letters, 2012, 39, .	1.5	28
62	Evaluation of the University of Victoria Earth System Climate Model version 2.10 (UVic ESCM 2.10). Geoscientific Model Development, 2020, 13, 4183-4204.	1.3	23
63	The effect of Denmark Strait overflow on the Atlantic Meridional Overturning Circulation. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	22
64	Present-day manifestation of the Nordic Seas Overflows. Geophysical Monograph Series, 2007, , 75-89.	0.1	21
65	Combined Effects of Atmospheric and Seafloor Iron Fluxes to the Glacial Ocean. Paleoceanography, 2017, 32, 1204-1218.	3.0	21
66	Carbon storage in the midâ€depth Atlantic during millennialâ€scale climate events. Paleoceanography, 2017, 32, 780-795.	3.0	21
67	A Seasonally Forced Oceanâ€“Atmosphere Model for Paleoclimate Studies. Journal of Climate, 2001, 14, 1055-1068.	1.2	20
68	Evidence for a biological pump driver of atmospheric CO₂ rise during Heinrich Stadial 1. Geophysical Research Letters, 2016, 43, 12,242.	1.5	20
69	Glacial Ice Sheet Extent Effects on Modeled Tidal Mixing and the Global Overturning Circulation. Paleoceanography and Paleoclimatology, 2019, 34, 1437-1454.	1.3	20
70	An improved parameterization of tidal mixing for ocean models. Geoscientific Model Development, 2014, 7, 211-224.	1.3	18
71	Explicit Planktic Calcifiers in the University of Victoria Earth System Climate Model, Version 2.9. Atmosphere - Ocean, 2015, 53, 332-350.	0.6	18
72	Glacial deep ocean deoxygenation driven by biologically mediated airâ€sea disequilibrium. Nature Geoscience, 2021, 14, 43-50.	5.4	18

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73	Impact of the ocean's Overturning circulation on atmospheric CO2. 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.	1.3	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.	1.4	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 â€œFuture changes in climate, ocean circulation, ecosystems, and biogeochemical cycling simulated for a businessâ€asâ€usual CO₂ emission scenario until year 4000 ADâ€• Global Biogeochemical Cycles, 2009, 23, .	1.9	14
79	Constraining Global Marine Iron Sources and Ligandâ€Mediated Scavenging Fluxes With GEOTRACES Dissolved Iron Measurements in an Ocean Biogeochemical Model. Global Biogeochemical Cycles, 2021, 35, e2021GB006948.	1.9	14
80	Simulations of Heinrich Events in a coupled ocean-atmosphere-sea ice model. Geophysical Research Letters, 2002, 29, 16-1-16-3.	1.5	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 Î´¹⁵N Record. Paleoceanography and Paleoclimatology, 2019, 34, 1554-1567.	1.3	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.	1.4	8
85	Validation of parametrisations for the meridional energy and moisture transport used in simple climate models. Climate Dynamics, 2000, 16, 63-77.	1.7	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.	0.8	7
87	Climatic Consequences of a Pine Island Glacier Collapse. Journal of Climate, 2015, 28, 9221-9234.	1.2	7
88	Active North Atlantic deepwater formation during Heinrich Stadial 1. Quaternary Science Reviews, 2021, 270, 107145.	1.4	7
89	Less Remineralized Carbon in the Intermediateâ€Depth South Atlantic During Heinrich Stadial 1. Paleoceanography and Paleoclimatology, 2019, 34, 1218-1233.	1.3	6
90	Enhanced vertical mixing in the glacial ocean inferred from sedimentary carbon isotopes. Communications Earth & Environment, 2021, 2, .	2.6	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. Geophysical Monograph Series, 2007, , 247-263.	0.1	5
92	Response to Comment on â€œClimate Sensitivity Estimated from Temperature Reconstructions of the Last Glacial Maximumâ€• Science, 2012, 337, 1294-1294.	6.0	5
93	World Atlas of late Quaternary Foraminiferal Oxygen and Carbon Isotope Ratios. Earth System Science Data, 2022, 14, 2553-2611.	3.7	5
94	Title is missing!. Integrated Assessment: an International Journal, 2000, 1, 301-306.	0.8	4
95	Musings about the connection between thermohaline circulation and climate. Geophysical Monograph Series, 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. Geophysical Monograph Series, 2007, , 383-392.	0.1	4
97	A cloud feedback emulator (CFE, version 1.0) for an intermediate complexity model. Geoscientific Model Development, 2017, 10, 945-958.	1.3	2
98	Projected reversal of oceanic stable carbon isotope ratio depth gradient with continued anthropogenic carbon emissions. Communications Earth & Environment, 2022, 3, .	2.6	2
99	Response to the comments by Peter Huybers. Quaternary Science Reviews, 2004, 23, 210-212.	1.4	1
100	The smoking gun for Atlantic circulation changes. Science, 2016, 353, 445-446.	6.0	1