

Thomas F Stocker

List of Publications by Year in descending order

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139
papers

19,886
citations

25034

57
h-index

12597

132
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141
all docs

141
docs citations

141
times ranked

14339
citing authors

#	ARTICLE	IF	CITATIONS
1	An efficient and accurate representation of complex oceanic and biospheric models of anthropogenic carbon uptake. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 48, 397.	1.6	64
2	A latitude-depth, circulation-biogeochemical ocean model for paleoclimate studies. Development and sensitivities. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 50, 290.	1.6	37
3	Feedback mechanisms and sensitivities of ocean carbon uptake under global warming. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 53, 564.	1.6	15
4	Supporting evidence from the EPICA Dronning Maud Land ice core for atmospheric CO ₂ changes during the past millennium. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 57, 51.	1.6	50
5	The 2010 Crafoord Prize awarded to Walter Munk. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 63, 189.	1.7	125
6	Atlantic hurricanes and associated insurance loss potentials in future climate scenarios: limitations of high-resolution AGCM simulations. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 64, 15672.	1.7	11
7	A fair and progressive carbon price for a sustainable economy. <i>Journal of Environmental Management</i> , 2022, 303, 113935.	7.8	9
8	Neodymium isotopes as a paleo-water mass tracer: A model-data reassessment. <i>Quaternary Science Reviews</i> , 2022, 279, 107404.	3.0	9
9	CH ₄ and N ₂ O fluctuations during the penultimate deglaciation. <i>Climate of the Past</i> , 2021, 17, 1627-1643.	3.4	5
10	Modeling the marine chromium cycle: new constraints on global-scale processes. <i>Biogeosciences</i> , 2021, 18, 5447-5463.	3.3	6
11	Inverse response of ²³¹ Pa/ ²³⁰ Th to variations of the Atlantic meridional overturning circulation in the North Atlantic intermediate water. <i>Geo-Marine Letters</i> , 2020, 40, 75-87.	1.1	1
12	Influence of Elevated Nd Fluxes on the Northern Nd Isotope End Member of the Atlantic During the Early Holocene. <i>Paleoceanography and Paleoclimatology</i> , 2020, 35, e2020PA003973.	2.9	13
13	Abrupt CO ₂ release to the atmosphere under glacial and early interglacial climate conditions. <i>Science</i> , 2020, 369, 1000-1005.	12.6	35
14	Utilization-focused scientific policy advice: a six-point checklist. <i>Climate Policy</i> , 2020, 20, 1336-1343.	5.1	15
15	Surprises for climate stability. <i>Science</i> , 2020, 367, 1425-1426.	12.6	2
16	Hysteresis of the Earth system under positive and negative CO ₂ emissions. <i>Environmental Research Letters</i> , 2020, 15, 124026.	5.2	27
17	Millennial-scale atmospheric CO ₂ variations during the Marine Isotope Stage 6 period (190â€“135â€‰ka). <i>Climate of the Past</i> , 2020, 16, 2203-2219.	3.4	10
18	The concerns of the young protesters are justified: A statement by<i>Scientists for Future</i> concerning the protests for more climate protection. <i>Gaia</i> , 2019, 28, 79-87.	0.7	56

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19	The realized warming fraction: a multi-model sensitivity study. <i>Environmental Research Letters</i> , 2018, 13, 124024.	5.2	5
20	Stable Equatorial Ice Belts at High Obliquity in a Coupled Atmosphere–Ocean Model. <i>Astrophysical Journal</i> , 2018, 864, 106.	4.5	21
21	Palaeoclimate constraints on the impact of 2 °C anthropogenic warming and beyond. <i>Nature Geoscience</i> , 2018, 11, 474-485.	12.9	166
22	Impact of variations of gravitational acceleration on the general circulation of the planetary atmosphere. <i>Planetary and Space Science</i> , 2017, 135, 1-16.	1.7	5
23	State-dependence of the Climate Sensitivity in Earth System Models of Intermediate Complexity. <i>Geophysical Research Letters</i> , 2017, 44, 10,643.	4.0	13
24	Projected drought risk in 1.5°C and 2°C warmer climates. <i>Geophysical Research Letters</i> , 2017, 44, 7419-7428.	4.0	227
25	Multiple Climate States of Habitable Exoplanets: The Role of Obliquity and Irradiance. <i>Astrophysical Journal</i> , 2017, 844, 147.	4.5	45
26	Overestimate of committed warming. <i>Nature</i> , 2017, 547, E16-E17.	27.8	7
27	20th-century changes in carbon isotopes and water-use efficiency: tree-ring-based evaluation of the CLM4.5 and LPX-Bern models. <i>Biogeosciences</i> , 2017, 14, 2641-2673.	3.3	81
28	A 156-kyr smoothed history of the atmospheric greenhouse gases CO ₂ , CH ₄ , and N ₂ O and their radiative forcing. <i>Earth System Science Data</i> , 2017, 9, 363-387.	9.9	157
29	Making use of the IPCC's powerful communication tool. <i>Nature Climate Change</i> , 2016, 6, 637-638.	18.8	11
30	Earth system commitments due to delayed mitigation. <i>Environmental Research Letters</i> , 2016, 11, 014010.	5.2	6
31	Stratospheric age of air variations between 1600 and 2100. <i>Geophysical Research Letters</i> , 2016, 43, 5409-5418.	4.0	9
32	Transport of salt and freshwater in the Atlantic Subpolar Gyre. <i>Ocean Dynamics</i> , 2016, 66, 1051-1064.	2.2	18
33	Mapping the climate change challenge. <i>Nature Climate Change</i> , 2016, 6, 663-668.	18.8	75
34	Consequences of twenty-first-century policy for multi-millennial climate and sea-level change. <i>Nature Climate Change</i> , 2016, 6, 360-369.	18.8	442
35	Revision of the EPICA Dome C CO ₂ record from 800 to 600 kyr before present. <i>Geophysical Research Letters</i> , 2015, 42, 542-549.	4.0	465
36	The silent services of the world ocean. <i>Science</i> , 2015, 350, 764-765.	12.6	33

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37	From local perception to global perspective. <i>Nature Climate Change</i> , 2015, 5, 731-734.	18.8	59
38	Millennial changes in North American wildfire and soil activity over the last glacial cycle. <i>Nature Geoscience</i> , 2015, 8, 723-727.	12.9	53
39	NGRIP CH ₄ concentration from 120 to 10 kyr before present and its relation to a $\delta^{15}N$ temperature reconstruction from the same ice core. <i>Climate of the Past</i> , 2014, 10, 903-920.	3.4	61
40	Influence of ice sheet topography on Greenland precipitation during the Eemian interglacial. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 10,749-10,768.	3.3	19
41	Isotopic constraints on marine and terrestrial N ₂ O emissions during the last deglaciation. <i>Nature</i> , 2014, 516, 234-237.	27.8	38
42	Impact of delay in reducing carbon dioxide emissions. <i>Nature Climate Change</i> , 2014, 4, 23-26.	18.8	85
43	Influence of the Central American Seaway and Drake Passage on ocean circulation and neodymium isotopes: A model study. <i>Paleoceanography</i> , 2014, 29, 1214-1237.	3.0	7
44	Allowable carbon emissions lowered by multiple climate targets. <i>Nature</i> , 2013, 499, 197-201.	27.8	105
45	Is the Atlantic subpolar gyre bistable in comprehensive coupled climate models?. <i>Climate Dynamics</i> , 2013, 40, 2993-3007.	3.8	33
46	The Closing Door of Climate Targets. <i>Science</i> , 2013, 339, 280-282.	12.6	115
47	Estimated strength of the Atlantic overturning circulation during the last deglaciation. <i>Nature Geoscience</i> , 2013, 6, 208-212.	12.9	88
48	A centrifugal ice microtome for measurements of atmospheric CO ₂ on air trapped in polar ice cores. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 251-262.	3.1	8
49	Mode change of millennial CO ₂ variability during the last glacial cycle associated with a bipolar marine carbon seesaw. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 9755-9760.	7.1	134
50	Sensitivity of Nd isotopic composition in seawater to changes in Nd sources and paleoceanographic implications. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	21
51	On the relationship between Nd isotopic composition and ocean overturning circulation in idealized freshwater discharge events. <i>Paleoceanography</i> , 2012, 27, .	3.0	16
52	A global picture of the first abrupt climatic event occurring during the last glacial inception. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	33
53	The freshwater balance of polar regions in transient simulations from 1500 to 2100 AD using a comprehensive coupled climate model. <i>Climate Dynamics</i> , 2012, 39, 347-363.	3.8	18
54	A Coupled Dynamical Ocean–Energy Balance Atmosphere Model for Paleoclimate Studies. <i>Journal of Climate</i> , 2011, 24, 349-375.	3.2	87

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55	Modelling Nd-isotopes with a coarse resolution ocean circulation model: Sensitivities to model parameters and source/sink distributions. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 5927-5950.	3.9	136
56	Fingerprints of changes in the terrestrial carbon cycle in response to large reorganizations in ocean circulation. <i>Climate of the Past</i> , 2011, 7, 319-338.	3.4	50
57	Expression of the bipolar see-saw in Antarctic climate records during the last deglaciation. <i>Nature Geoscience</i> , 2011, 4, 46-49.	12.9	212
58	The IPCC AR5 guidance note on consistent treatment of uncertainties: a common approach across the working groups. <i>Climatic Change</i> , 2011, 108, 675-691.	3.6	259
59	Simulated decadal oscillations of the Atlantic meridional overturning circulation in a cold climate state. <i>Climate Dynamics</i> , 2010, 34, 101-121.	3.8	45
60	Uncertainty and risk in climate projections for the 21st century: comparing mitigation to non-intervention scenarios. <i>Climatic Change</i> , 2010, 103, 399-422.	3.6	17
61	CO ₂ and O ₂ /N ₂ variations in and just below the bubbleâ€œclathrate transformation zone of Antarctic ice cores. <i>Earth and Planetary Science Letters</i> , 2010, 297, 226-233.	4.4	47
62	Glacialâ€œinterglacial and millennial-scale variations in the atmospheric nitrous oxide concentration during the last 800,000 years. <i>Quaternary Science Reviews</i> , 2010, 29, 182-192.	3.0	163
63	Constraints on future sea-level rise from past sea-level change. <i>Nature Geoscience</i> , 2009, 2, 571-575.	12.9	38
64	Change in CO ₂ concentration and O ₂ /N ₂ ratio in ice cores due to molecular diffusion. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	32
65	High-resolution carbon dioxide concentration record 650,000â€œ800,000â€œyears before present. <i>Nature</i> , 2008, 453, 379-382.	27.8	1,837
66	Orbital and millennial-scale features of atmospheric CH ₄ over the past 800,000â€œyears. <i>Nature</i> , 2008, 453, 383-386.	27.8	840
67	Modeled natural and excess radiocarbon: Sensitivities to the gas exchange formulation and ocean transport strength. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	4.9	70
68	Modeling the particle flux effect on distribution of ²³⁰ Th in the equatorial Pacific. <i>Paleoceanography</i> , 2008, 23, .	3.0	23
69	A Review of Uncertainties in Global Temperature Projections over the Twenty-First Century. <i>Journal of Climate</i> , 2008, 21, 2651-2663.	3.2	209
70	Tropical cyclones in ERA-40: A detection and tracking method. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	17
71	How unusual is the recent series of warm years?. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	35
72	Long-Term Climate Commitments Projected with Climateâ€œCarbon Cycle Models. <i>Journal of Climate</i> , 2008, 21, 2721-2751.	3.2	232

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73	Robust Bayesian Uncertainty Analysis of Climate System Properties Using Markov Chain Monte Carlo Methods. <i>Journal of Climate</i> , 2007, 20, 1239-1254.	3.2	78
74	Assessing uncertainty in climate simulations. <i>Nature Climate Change</i> , 2007, 1, 63-63.	18.8	1
75	Buoyancy-driven flow and nature of vertical mixing in a zonally averaged model. <i>Geophysical Monograph Series</i> , 2007, , 33-52.	0.1	5
76	Four Climate Cycles of Recurring Deep and Surface Water Destabilizations on the Iberian Margin. <i>Science</i> , 2007, 317, 502-507.	12.6	551
77	Marine Isotope Stage (MIS) 8 millennial variability stratigraphically identical to MIS 3. <i>Paleoceanography</i> , 2007, 22, n/a-n/a.	3.0	19
78	Modeling the relationship between ²³¹ Pa/ ²³⁰ Th distribution in North Atlantic sediment and Atlantic meridional overturning circulation. <i>Paleoceanography</i> , 2007, 22, .	3.0	45
79	The Influence of a Weakening of the Atlantic Meridional Overturning Circulation on ENSO. <i>Journal of Climate</i> , 2007, 20, 4899-4919.	3.2	282
80	Orbital and Millennial Antarctic Climate Variability over the Past 800,000 Years. <i>Science</i> , 2007, 317, 793-796.	12.6	1,880
81	Extreme midlatitude cyclones and their implications for precipitation and wind speed extremes in simulations of the Maunder Minimum versus present day conditions. <i>Climate Dynamics</i> , 2007, 28, 409-423.	3.8	94
82	The influence of regional circulation patterns on wet and dry mineral dust and sea salt deposition over Greenland. <i>Climate Dynamics</i> , 2007, 28, 635-647.	3.8	15
83	A European pattern climatology 1766â€“2000. <i>Climate Dynamics</i> , 2007, 29, 791-805.	3.8	127
84	Aerosol deposited in East Antarctica over the last glacial cycle: Detailed apportionment of continental and sea-salt contributions. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	47
85	The Holocene CO ₂ rise: Anthropogenic or natural?. <i>Eos</i> , 2006, 87, 27.	0.1	103
86	Indian Ocean zonal mode activity in a multicentury integration of a coupled AOGCM consistent with climate proxy data. <i>Geophysical Research Letters</i> , 2006, 33, n/a-n/a.	4.0	33
87	Water Mass Distribution and Ventilation Time Scales in a Cost-Efficient, Three-Dimensional Ocean Model. <i>Journal of Climate</i> , 2006, 19, 5479-5499.	3.2	113
88	Challenges posed by and approaches to the study of seasonal-to-decadal climate variability. <i>Climatic Change</i> , 2006, 79, 31-63.	3.6	28
89	The coupling of optimal economic growth and climate dynamics. <i>Climatic Change</i> , 2006, 79, 103-119.	3.6	16
90	On the interpretation of low-latitude hydrological proxy records based on Maunder Minimum AOGCM simulations. <i>Climate Dynamics</i> , 2006, 27, 493-513.	3.8	10

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91	Northern Hemispheric Trends of Pressure Indices and Atmospheric Circulation Patterns in Observations, Reconstructions, and Coupled GCM Simulations. <i>Journal of Climate</i> , 2005, 18, 3968-3982.	3.2	51
92	Ocean Gyres and Abrupt Change in the Thermohaline Circulation: A Conceptual Analysis. <i>Journal of Climate</i> , 2005, 18, 2403-2416.	3.2	25
93	Supporting evidence from the EPICA Dronning Maud Land ice core for atmospheric CO ₂ changes during the past millennium. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2005, 57, 51-57.	1.6	71
94	Externally Forced and Internal Variability in Ensemble Climate Simulations of the Maunder Minimum. <i>Journal of Climate</i> , 2005, 18, 4253-4270.	3.2	76
95	Stable Carbon Cycle-Climate Relationship During the Late Pleistocene. <i>Science</i> , 2005, 310, 1313-1317.	12.6	811
96	Atmospheric Methane and Nitrous Oxide of the Late Pleistocene from Antarctic Ice Cores. <i>Science</i> , 2005, 310, 1317-1321.	12.6	424
97	Probabilistic climate change projections for CO ₂ stabilization profiles. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	53
98	Reconstructing climate variability from Greenland ice sheet accumulation: An ERA40 study. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	21
99	N ₂ O and CH ₄ variations during the last glacial epoch: Insight into global processes. <i>Global Biogeochemical Cycles</i> , 2004, 18, n/a-n/a.	4.9	171
100	The EPICA challenge to the Earth system modeling community. <i>Eos</i> , 2004, 85, 363.	0.1	6
101	Probabilistic climate change projections using neural networks. <i>Climate Dynamics</i> , 2003, 21, 257-272.	3.8	185
102	A modeling study of oceanic nitrous oxide during the Younger Dryas cold period. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	19
103	A model for long-term climatic effects of impacts. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	6
104	Trends in marine dissolved oxygen: Implications for ocean circulation changes and the carbon budget. <i>Eos</i> , 2003, 84, 197.	0.1	124
105	A minimum thermodynamic model for the bipolar seesaw. <i>Paleoceanography</i> , 2003, 18, n/a-n/a.	3.0	628
106	Radiocarbon and luminescence dating of overbank deposits in outwash sediments of the Last Glacial Maximum in North Westland, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2003, 46, 95-106.	1.8	23
107	High-resolution $\delta^{13}\text{C}$ measurements on ancient air extracted from less than 10 cm ³ of ice. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2003, 55, 138-144.	1.6	6
108	CLIMATE CHANGE: North-South Connections. <i>Science</i> , 2002, 297, 1814-1815.	12.6	40

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109	High-resolution Holocene N ₂ O ice core record and its relationship with CH ₄ and CO ₂ . <i>Global Biogeochemical Cycles</i> , 2002, 16, 10-1-10-8.	4.9	211
110	Revision of the global carbon budget due to changing air-sea oxygen fluxes. <i>Global Biogeochemical Cycles</i> , 2002, 16, 43-1-43-12.	4.9	136
111	Atmospheric CO ₂ Concentrations over the Last Glacial Termination. <i>Science</i> , 2001, 291, 112-114.	12.6	1,149
112	Title is missing!. <i>Integrated Assessment: an International Journal</i> , 2000, 1, 301-306.	0.8	4
113	Validation of parametrisations for the meridional energy and moisture transport used in simple climate models. <i>Climate Dynamics</i> , 2000, 16, 63-77.	3.8	7
114	Abrupt climate change in the computer: Is it real?. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 1362-1365.	7.1	71
115	Past and future reorganizations in the climate system. <i>Quaternary Science Reviews</i> , 2000, 19, 301-319.	3.0	177
116	Atmospheric CO ₂ concentration from 60 to 20 kyr BP from the Taylor Dome Ice Core, Antarctica. <i>Geophysical Research Letters</i> , 2000, 27, 735-738.	4.0	189
117	Enhanced Atlantic freshwater export during El Niño. <i>Geophysical Research Letters</i> , 2000, 27, 1163-1166.	4.0	108
118	Variability on the century time scale and regime changes in a stochastically forced zonally averaged ocean-atmosphere model. <i>Geophysical Research Letters</i> , 2000, 27, 1303-1306.	4.0	18
119	Holocene carbon-cycle dynamics based on CO ₂ trapped in ice at Taylor Dome, Antarctica. <i>Nature</i> , 1999, 398, 121-126.	27.8	686
120	Abrupt climate changes: from the past to the future - a review. <i>International Journal of Earth Sciences</i> , 1999, 88, 365-374.	1.8	45
121	Intermittent convection, mixed boundary conditions and the stability of the thermohaline circulation. <i>Climate Dynamics</i> , 1999, 15, 277-291.	3.8	7
122	Modelling the concentration of atmospheric CO ₂ during the Younger Dryas climate event. <i>Climate Dynamics</i> , 1999, 15, 341-354.	3.8	97
123	Global Warming and Marine Carbon Cycle Feedbacks on Future Atmospheric CO ₂ . <i>Science</i> , 1999, 284, 464-467.	12.6	284
124	Asynchrony of Antarctic and Greenland climate change during the last glacial period. <i>Nature</i> , 1998, 394, 739-743.	27.8	736
125	Atmospheric CO ₂ concentration and millennial-scale climate change during the last glacial period. <i>Nature</i> , 1998, 392, 59-62.	27.8	130
126	A glimpse of the glacial. <i>Nature</i> , 1998, 391, 338-339.	27.8	7

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127	The North Atlantic Oscillation and its imprint on precipitation and ice accumulation in Greenland. Geophysical Research Letters, 1998, 25, 1939-1942.	4.0	84
128	CLIMATE CHANGE:The Seesaw Effect. , 1998, 282, 61-62.		404
129	North Atlantic Oscillation Dynamics Recorded in Greenland Ice Cores. , 1998, 282, 446-449.		297
130	The Effect of a Succession of Ocean Ventilation Changes on ¹⁴ C. Radiocarbon, 1997, 40, 359-366.	1.8	34
131	Influence of CO2 emission rates on the stability of the thermohaline circulation. Nature, 1997, 388, 862-865.	27.8	426
132	Rapid changes in ocean circulation and atmospheric radiocarbon. Paleoceanography, 1996, 11, 773-795.	3.0	132
133	The variable ocean. Nature, 1994, 367, 221-222.	27.8	29
134	Atmospheric freshwater fluxes and their effect on the global thermohaline circulation. Journal of Geophysical Research, 1994, 99, 12443.	3.3	75
135	A Zonally Averaged, Coupled Ocean-Atmosphere Model for Paleoclimate Studies. Journal of Climate, 1992, 5, 773-797.	3.2	262
136	The influence of high-latitude surface forcing on the global thermohaline circulation. Paleoceanography, 1992, 7, 529-541.	3.0	175
137	A Zonally Averaged Ocean Model for the Thermohaline Circulation. Part I: Model Development and Flow Dynamics. Journal of Physical Oceanography, 1991, 21, 1713-1724.	1.7	181
138	The Future of the Thermohaline Circulation - a Perspective. Geophysical Monograph Series, 0, , 277-293.	0.1	16
139	WALLY, MENTOR OF THE YOUNG. Radiocarbon, 0, , 1-7.	1.8	0