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 g-index
141 all docs	141 docs citations	141 times ranked	14339 citing authors

#	Article	IF	Citations
1	Orbital and Millennial Antarctic Climate Variability over the Past 800,000 Years. Science, 2007, 317, 793-796.	12.6	1,880
2	High-resolution carbon dioxide concentration record 650,000â€“800,000â€‰years before present. Nature, 2008, 453, 379-382.	27.8	1,837
3	Atmospheric CO2 Concentrations over the Last Glacial Termination. Science, 2001, 291, 112-114.	12.6	1,149
4	Orbital and millennial-scale features of atmospheric CH4 over the past 800,000â€‰years. Nature, 2008, 453, 383-386.	27.8	840
5	Stable Carbon Cycle-Climate Relationship During the Late Pleistocene. Science, 2005, 310, 1313-1317.	12.6	811
6	Asynchrony of Antarctic and Greenland climate change during the last glacial period. Nature, 1998, 394, 739-743.	27.8	736
7	Holocene carbon-cycle dynamics based on CO2 trapped in ice at Taylor Dome, Antarctica. Nature, 1999, 398, 121-126.	27.8	686
8	A minimum thermodynamic model for the bipolar seesaw. Paleoceanography, 2003, 18, n/a-n/a.	3.0	628
9	Four Climate Cycles of Recurring Deep and Surface Water Destabilizations on the Iberian Margin. Science, 2007, 317, 502-507.	12.6	551
10	Revision of the EPICA Dome C CO₂ record from 800 to 600â€‰kyr before present. Geophysical Research Letters, 2015, 42, 542-549.	4.0	465
11	Consequences of twenty-first-century policy for multi-millennial climate and sea-level change. Nature Climate Change, 2016, 6, 360-369.	18.8	442
12	Influence of CO2 emission rates on the stability of the thermohaline circulation. Nature, 1997, 388, 862-865.	27.8	426
13	Atmospheric Methane and Nitrous Oxide of the Late Pleistocene from Antarctic Ice Cores. Science, 2005, 310, 1317-1321.	12.6	424
14	CLIMATE CHANGE:The Seesaw Effect. , 1998, 282, 61-62.		404
15	North Atlantic Oscillation Dynamics Recorded in Greenland Ice Cores. , 1998, 282, 446-449.		297
16	Global Warming and Marine Carbon Cycle Feedbacks on Future Atmospheric CO2. Science, 1999, 284, 464-467.	12.6	284
17	The Influence of a Weakening of the Atlantic Meridional Overturning Circulation on ENSO. Journal of Climate, 2007, 20, 4899-4919.	3.2	282
18	A Zonally Averaged, Coupled Ocean-Atmosphere Model for Paleoclimate Studies. Journal of Climate, 1992, 5, 773-797.	3.2	262

#	Article	IF	Citations
19	The IPCC AR5 guidance note on consistent treatment of uncertainties: a common approach across the working groups. Climatic Change, 2011, 108, 675-691.	3.6	259
20	Long-Term Climate Commitments Projected with Climateâ€“Carbon Cycle Models. Journal of Climate, 2008, 21, 2721-2751.	3.2	232
21	Projected drought risk in 1.5Â°C and 2Â°C warmer climates. Geophysical Research Letters, 2017, 44, 7419-7428.	4.0	227
22	Expression of the bipolar see-saw in Antarctic climate records during the last deglaciation. Nature Geoscience, 2011, 4, 46-49.	12.9	212
23	High-resolution Holocene N2O ice core record and its relationship with CH4and CO2. Global Biogeochemical Cycles, 2002, 16, 10-1-10-8.	4.9	211
24	A Review of Uncertainties in Global Temperature Projections over the Twenty-First Century. Journal of Climate, 2008, 21, 2651-2663.	3.2	209
25	Atmospheric CO2concentration from 60 to 20 kyr BP from the Taylor Dome Ice Core, Antarctica. Geophysical Research Letters, 2000, 27, 735-738.	4.0	189
26	Probabilistic climate change projections using neural networks. Climate Dynamics, 2003, 21, 257-272.	3.8	185
27	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
28	Past and future reorganizations in the climate system. Quaternary Science Reviews, 2000, 19, 301-319.	3.0	177
29	The influence of highâ€latitude surface forcing on the global thermohaline circulation. Paleoceanography, 1992, 7, 529-541.	3.0	175
30	N2O and CH4variations during the last glacial epoch: Insight into global processes. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	171
31	Palaeoclimate constraints on the impact of 2 Â°C anthropogenic warming and beyond. Nature Geoscience, 2018, 11, 474-485.	12.9	166
32	Glacialâ€“interglacial and millennial-scale variations in the atmospheric nitrous oxide concentration during the last 800,000 years. Quaternary Science Reviews, 2010, 29, 182-192.	3.0	163
33	A 156â€kyr smoothed history of the atmospheric greenhouse gases CO₂, CH₄, and N₂O and their radiative forcing. Earth System Science Data, 2017, 9, 363-387.	9.9	157
34	Revision of the global carbon budget due to changing air-sea oxygen fluxes. Global Biogeochemical Cycles, 2002, 16, 43-1-43-12.	4.9	136
35	Modelling Nd-isotopes with a coarse resolution ocean circulation model: Sensitivities to model parameters and source/sink distributions. Geochimica Et Cosmochimica Acta, 2011, 75, 5927-5950.	3.9	136
36	Mode change of millennial CO ₂ variability during the last glacial cycle associated with a bipolar marine carbon seesaw. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9755-9760.	7.1	134

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37	Rapid changes in ocean circulation and atmospheric radiocarbon. Paleoceanography, 1996, 11, 773-795.	3.0	132
38	Atmospheric CO2 concentration and millennial-scale climate change during the last glacial period. Nature, 1998, 392, 59-62.	27.8	130
39	A European pattern climatology 1766â€“2000. Climate Dynamics, 2007, 29, 791-805.	3.8	127
40	The 2010 Crafoord Prize awarded to Walter Munk. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 63, 189.	1.7	125
41	Trends in marine dissolved oxygen: Implications for ocean circulation changes and the carbon budget. Eos, 2003, 84, 197.	0.1	124
42	The Closing Door of Climate Targets. Science, 2013, 339, 280-282.	12.6	115
43	Water Mass Distribution and Ventilation Time Scales in a Cost-Efficient, Three-Dimensional Ocean Model. Journal of Climate, 2006, 19, 5479-5499.	3.2	113
44	Enhanced Atlantic freshwater export during El NiÃ±o. Geophysical Research Letters, 2000, 27, 1163-1166.	4.0	108
45	Allowable carbon emissions lowered by multiple climate targets. Nature, 2013, 499, 197-201.	27.8	105
46	The Holocene CO2rise: Anthropogenic or natural?. Eos, 2006, 87, 27.	0.1	103
47	Modelling the concentration of atmospheric CO 2 during the Younger Dryas climate event. Climate Dynamics, 1999, 15, 341-354.	3.8	97
48	Extreme midlatitude cyclones and their implications for precipitation and wind speed extremes in simulations of the Maunder Minimum versus present day conditions. Climate Dynamics, 2007, 28, 409-423.	3.8	94
49	Estimated strength of the Atlantic overturning circulation during the last deglaciation. Nature Geoscience, 2013, 6, 208-212.	12.9	88
50	A Coupled Dynamical Oceanâ€“Energy Balance Atmosphere Model for Paleoclimate Studies. Journal of Climate, 2011, 24, 349-375.	3.2	87
51	Impact of delay in reducing carbon dioxide emissions. Nature Climate Change, 2014, 4, 23-26.	18.8	85
52	The North Atlantic Oscillation and its imprint on precipitation and ice accumulation in Greenland. Geophysical Research Letters, 1998, 25, 1939-1942.	4.0	84
53	20thÂcentury changes in carbon isotopes and water-use efficiency: tree-ring-based evaluation of the CLM4.5 and LPX-Bern models. Biogeosciences, 2017, 14, 2641-2673.	3.3	81
54	Robust Bayesian Uncertainty Analysis of Climate System Properties Using Markov Chain Monte Carlo Methods. Journal of Climate, 2007, 20, 1239-1254.	3.2	78

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55	Externally Forced and Internal Variability in Ensemble Climate Simulations of the Maunder Minimum. Journal of Climate, 2005, 18, 4253-4270.	3.2	76
56	Atmospheric freshwater fluxes and their effect on the global thermohaline circulation. Journal of Geophysical Research, 1994, 99, 12443.	3.3	75
57	Mapping the climate change challenge. Nature Climate Change, 2016, 6, 663-668.	18.8	75
58	Abrupt climate change in the computer: Is it real?. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 1362-1365.	7.1	71
59	Supporting evidence from the EPICA Dronning Maud Land ice core for atmospheric CO2 changes during the past millennium. Tellus, Series B: Chemical and Physical Meteorology, 2005, 57, 51-57.	1.6	71
60	Modeled natural and excess radiocarbon: Sensitivities to the gas exchange formulation and ocean transport strength. Global Biogeochemical Cycles, 2008, 22, .	4.9	70
61	An efficient and accurate representation of complex oceanic and biospheric models of anthropogenic carbon uptake. Tellus, Series B: Chemical and Physical Meteorology, 2022, 48, 397.	1.6	64
62	NGRIP CH₄ concentration from 120 to 10 kyr before present and its relation to a Î´¹⁵N temperature reconstruction from the same ice core. Climate of the Past, 2014, 10, 903-920.	3.4	61
63	From local perception to global perspective. Nature Climate Change, 2015, 5, 731-734.	18.8	59
64	The concerns of the young protesters are justified: A statement by‹i›Scientists for Future‹/i›concerning the protests for more climate protection. Gaia, 2019, 28, 79-87.	0.7	56
65	Probabilistic climate change projections for CO2stabilization profiles. Geophysical Research Letters, 2005, 32, .	4.0	53
66	Millennial changes in North American wildfire and soil activity over the last glacial cycle. Nature Geoscience, 2015, 8, 723-727.	12.9	53
67	Northern Hemispheric Trends of Pressure Indices and Atmospheric Circulation Patterns in Observations, Reconstructions, and Coupled GCM Simulations. Journal of Climate, 2005, 18, 3968-3982.	3.2	51
68	Supporting evidence from the EPICA Dronning Maud Land ice core for atmospheric CO₂ changes during the past millennium. Tellus, Series B: Chemical and Physical Meteorology, 2022, 57, 51.	1.6	50
69	Fingerprints of changes in the terrestrial carbon cycle in response to large reorganizations in ocean circulation. Climate of the Past, 2011, 7, 319-338.	3.4	50
70	Aerosol deposited in East Antarctica over the last glacial cycle: Detailed apportionment of continental and sea-salt contributions. Journal of Geophysical Research, 2006, 111, .	3.3	47
71	CO2 and O2/N2 variations in and just below the bubbleâ€“clathrate transformation zone of Antarctic ice cores. Earth and Planetary Science Letters, 2010, 297, 226-233.	4.4	47
72	Abrupt climate changes: from the past to the future - a review. International Journal of Earth Sciences, 1999, 88, 365-374.	1.8	45

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73	Modeling the relationship between231Pa/230Th distribution in North Atlantic sediment and Atlantic meridional overturning circulation. Paleoceanography, 2007, 22, .	3.0	45
74	Simulated decadal oscillations of the Atlantic meridional overturning circulation in a cold climate state. Climate Dynamics, 2010, 34, 101-121.	3.8	45
75	Multiple Climate States of Habitable Exoplanets: The Role of Obliquity and Irradiance. Astrophysical Journal, 2017, 844, 147.	4.5	45
76	CLIMATE CHANGE: North-South Connections. Science, 2002, 297, 1814-1815.	12.6	40
77	Constraints on future sea-level rise from past sea-level change. Nature Geoscience, 2009, 2, 571-575.	12.9	38
78	Isotopic constraints on marine and terrestrial N2O emissions during the last deglaciation. Nature, 2014, 516, 234-237.	27.8	38
79	A latitude-depth, circulation-biogeochemical ocean model for paleoclimate studies. Development and sensitivities. Tellus, Series B: Chemical and Physical Meteorology, 2022, 50, 290.	1.6	37
80	How unusual is the recent series of warm years?. Geophysical Research Letters, 2008, 35, .	4.0	35
81	Abrupt CO ₂ release to the atmosphere under glacial and early interglacial climate conditions. Science, 2020, 369, 1000-1005.	12.6	35
82	The Effect of a Succession of Ocean Ventilation Changes on ¹⁴C. Radiocarbon, 1997, 40, 359-366.	1.8	34
83	Indian Ocean zonal mode activity in a multicentury integration of a coupled AOGCM consistent with climate proxy data. Geophysical Research Letters, 2006, 33, n/a-n/a.	4.0	33
84	A global picture of the first abrupt climatic event occurring during the last glacial inception. Geophysical Research Letters, 2012, 39, .	4.0	33
85	Is the Atlantic subpolar gyre bistable in comprehensive coupled climate models?. Climate Dynamics, 2013, 40, 2993-3007.	3.8	33
86	The silent services of the world ocean. Science, 2015, 350, 764-765.	12.6	33
87	Change in CO₂ concentration and O₂/N₂ ratio in ice cores due to molecular diffusion. Geophysical Research Letters, 2009, 36, .	4.0	32
88	The variable ocean. Nature, 1994, 367, 221-222.	27.8	29
89	Challenges posed by and approaches to the study of seasonal-to-decadal climate variability. Climatic Change, 2006, 79, 31-63.	3.6	28
90	Hysteresis of the Earth system under positive and negative CO₂ emissions. Environmental Research Letters, 2020, 15, 124026.	5.2	27

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91	Ocean Gyres and Abrupt Change in the Thermohaline Circulation: A Conceptual Analysis. Journal of Climate, 2005, 18, 2403-2416.	3.2	25
92	Radiocarbon and luminescence dating of overbank deposits in outwash sediments of the Last Glacial Maximum in North Westland, New Zealand. New Zealand Journal of Geology, and Geophysics, 2003, 46, 95-106.	1.8	23
93	Modeling the particle flux effect on distribution of ²³⁰Th in the equatorial Pacific. Paleoceanography, 2008, 23, .	3.0	23
94	Reconstructing climate variability from Greenland ice sheet accumulation: An ERA40 study. Geophysical Research Letters, 2005, 32, .	4.0	21
95	Sensitivity of Nd isotopic composition in seawater to changes in Nd sources and paleoceanographic implications. Journal of Geophysical Research, 2012, 117, .	3.3	21
96	Stable Equatorial Ice Belts at High Obliquity in a Coupled Atmosphereâ€“Ocean Model. Astrophysical Journal, 2018, 864, 106.	4.5	21
97	A modeling study of oceanic nitrous oxide during the Younger Dryas cold period. Geophysical Research Letters, 2003, 30, .	4.0	19
98	Marine Isotope Stage (MIS) 8 millennial variability stratigraphically identical to MIS 3. Paleoceanography, 2007, 22, n/a-n/a.	3.0	19
99	Influence of ice sheet topography on Greenland precipitation during the Eemian interglacial. Journal of Geophysical Research D: Atmospheres, 2014, 119, 10,749-10,768.	3.3	19
100	Variability on the century time scale and regime changes in a stochastically forced zonally averaged ocean-atmosphere model. Geophysical Research Letters, 2000, 27, 1303-1306.	4.0	18
101	The freshwater balance of polar regions in transient simulations from 1500 to 2100 AD using a comprehensive coupled climate model. Climate Dynamics, 2012, 39, 347-363.	3.8	18
102	Transport of salt and freshwater in the Atlantic Subpolar Gyre. Ocean Dynamics, 2016, 66, 1051-1064.	2.2	18
103	Tropical cyclones in ERAâ€40: A detection and tracking method. Geophysical Research Letters, 2008, 35, .	4.0	17
104	Uncertainty and risk in climate projections for the 21st century: comparing mitigation to non-intervention scenarios. Climatic Change, 2010, 103, 399-422.	3.6	17
105	The coupling of optimal economic growth and climate dynamics. Climatic Change, 2006, 79, 103-119.	3.6	16
106	On the relationship between Nd isotopic composition and ocean overturning circulation in idealized freshwater discharge events. Paleoceanography, 2012, 27, .	3.0	16
107	The Future of the Thermohaline Circulation - a Perspective. Geophysical Monograph Series, 0, , 277-293.	0.1	16
108	Feedback mechanisms and sensitivities of ocean carbon uptake under global warming. Tellus, Series B: Chemical and Physical Meteorology, 2022, 53, 564.	1.6	15

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109	The influence of regional circulation patterns on wet and dry mineral dust and sea salt deposition over Greenland. Climate Dynamics, 2007, 28, 635-647.	3.8	15
110	Utilization-focused scientific policy advice: a six-point checklist. Climate Policy, 2020, 20, 1336-1343.	5.1	15
111	Stateâ€Dependence of the Climate Sensitivity in Earth System Models of Intermediate Complexity. Geophysical Research Letters, 2017, 44, 10,643.	4.0	13
112	Influence of Elevated Nd Fluxes on the Northern Nd Isotope End Member of the Atlantic During the Early Holocene. Paleoceanography and Paleoclimatology, 2020, 35, e2020PA003973.	2.9	13
113	Atlantic hurricanes and associated insurance loss potentials in future climate scenarios: limitations of high-resolution AGCM simulations. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 64, 15672.	1.7	11
114	Making use of the IPCC's powerful communication tool. Nature Climate Change, 2016, 6, 637-638.	18.8	11
115	On the interpretation of low-latitude hydrological proxy records based on Maunder Minimum AOGCM simulations. Climate Dynamics, 2006, 27, 493-513.	3.8	10
116	Millennial-scale atmospheric CO₂ variations during the Marine Isotope Stage 6 period (190â€“135â€‰ka). Climate of the Past, 2020, 16, 2203-2219.	3.4	10
117	Stratospheric age of air variations between 1600 and 2100. Geophysical Research Letters, 2016, 43, 5409-5418.	4.0	9
118	A fair and progressive carbon price for a sustainable economy. Journal of Environmental Management, 2022, 303, 113935.	7.8	9
119	Neodymium isotopes as a paleo-water mass tracer: A model-data reassessment. Quaternary Science Reviews, 2022, 279, 107404.	3.0	9
120	A centrifugal ice microtome for measurements of atmospheric CO₂ on air trapped in polar ice cores. Atmospheric Measurement Techniques, 2013, 6, 251-262.	3.1	8
121	A glimpse of the glacial. Nature, 1998, 391, 338-339.	27.8	7
122	Intermittent convection, mixed boundary conditions and the stability of the thermohaline circulation. Climate Dynamics, 1999, 15, 277-291.	3.8	7
123	Validation of parametrisations for the meridional energy and moisture transport used in simple climate models. Climate Dynamics, 2000, 16, 63-77.	3.8	7
124	Influence of the Central American Seaway and Drake Passage on ocean circulation and neodymium isotopes: A model study. Paleoceanography, 2014, 29, 1214-1237.	3.0	7
125	Overestimate of committed warming. Nature, 2017, 547, E16-E17.	27.8	7
126	A model for long-term climatic effects of impacts. Journal of Geophysical Research, 2003, 108, .	3.3	6

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127	High-resolution Î´13C measurements on ancient air extracted from less than 10 cm3 of ice. Tellus, Series B: Chemical and Physical Meteorology, 2003, 55, 138-144.	1.6	6
128	The EPICA challenge to the Earth system modeling community. Eos, 2004, 85, 363.	0.1	6
129	Earth system commitments due to delayed mitigation. Environmental Research Letters, 2016, 11, 014010.	5.2	6
130	Modeling the marine chromium cycle: new constraints on global-scale processes. Biogeosciences, 2021, 18, 5447-5463.	3.3	6
131	Buoyancy-driven flow and nature of vertical mixing in a zonally averaged model. Geophysical Monograph Series, 2007, , 33-52.	0.1	5
132	Impact of variations of gravitational acceleration on the general circulation of the planetary atmosphere. Planetary and Space Science, 2017, 135, 1-16.	1.7	5
133	The realized warming fraction: a multi-model sensitivity study. Environmental Research Letters, 2018, 13, 124024.	5.2	5
134	CH₄ and N₂O fluctuations during the penultimate deglaciation. Climate of the Past, 2021, 17, 1627-1643.	3.4	5
135	Title is missing!. Integrated Assessment: an International Journal, 2000, 1, 301-306.	0.8	4
136	Surprises for climate stability. Science, 2020, 367, 1425-1426.	12.6	2
137	Assessing uncertainty in climate simulations. Nature Climate Change, 2007, 1, 63-63.	18.8	1
138	Inverse response of 231Pa/230Th to variations of the Atlantic meridional overturning circulation in the North Atlantic intermediate water. Geo-Marine Letters, 2020, 40, 75-87.	1.1	1
139	WALLY, MENTOR OF THE YOUNG. Radiocarbon, 0, , 1-7.	1.8	0