

Martin Claussen

List of Publications by Year in descending order

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Version: 2024-02-01

128
papers

12,610
citations

41323

49
h-index

27389

106
g-index

167
all docs

167
docs citations

167
times ranked

10420
citing authors

#	ARTICLE	IF	CITATIONS
1	Contribution of anthropogenic land cover change emissions to pre-industrial atmospheric CO ₂ . Tellus, Series B: Chemical and Physical Meteorology, 2022, 62, 329.	0.8	34
2	Effect of nitrogen limitation and soil biophysics on Holocene greening of the Sahara. Climate of the Past, 2022, 18, 313-326.	1.3	0
3	The ICON Earth System Model Version 1.0. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	16
4	Simulated range of mid-Holocene precipitation changes from extended lakes and wetlands over North Africa. Climate of the Past, 2022, 18, 1035-1046.	1.3	4
5	Past abrupt changes, tipping points and cascading impacts in the Earth system. Nature Geoscience, 2021, 14, 550-558.	5.4	62
6	Influence of the representation of convection on the mid-Holocene West African Monsoon. Climate of the Past, 2021, 17, 1665-1684.	1.3	3
7	Holocene vegetation transitions and their climatic drivers in MPI-ESM1.2. Climate of the Past, 2021, 17, 2481-2513.	1.3	23
8	Global temperature modes shed light on the Holocene temperature conundrum. Nature Communications, 2020, 11, 4726.	5.8	71
9	The end of the African humid period as seen by a transient comprehensive Earth system model simulation of the last 8000 years. Climate of the Past, 2020, 16, 117-140.	1.3	41
10	What was the source of the atmospheric CO ₂ increase during the Holocene?. Biogeosciences, 2019, 16, 2543-2555.	1.3	24
11	Sahel Rainfall–Tropical Easterly Jet Relationship on Synoptic to Intraseasonal Time Scales. Monthly Weather Review, 2019, 147, 1733-1752.	0.5	7
12	Harmonising plant functional type distributions for evaluating Earth system models. Climate of the Past, 2019, 15, 335-366.	1.3	23
13	The Max Planck Institute Grand Ensemble: Enabling the Exploration of Climate System Variability. Journal of Advances in Modeling Earth Systems, 2019, 11, 2050-2069.	1.3	288
14	Developments in the MPI Earth System Model version 1.2 (MPI-ESM1.2) and Its Response to Increasing CO ₂ . Journal of Advances in Modeling Earth Systems, 2019, 11, 998-1038.	1.3	582
15	Rapid increase in simulated North Atlantic dust deposition due to fast change of northwest African landscape during the Holocene. Climate of the Past, 2018, 14, 1051-1066.	1.3	21
16	Earth system model simulations show different feedback strengths of the terrestrial carbon cycle under glacial and interglacial conditions. Earth System Dynamics, 2018, 9, 413-425.	2.7	11
17	Two drastically different climate states on an Earth-like terra-planet. Earth System Dynamics, 2018, 9, 739-756.	2.7	3
18	Environmental change during MIS4 and MIS 3 opened corridors in the Horn of Africa for Homo sapiens expansion. Quaternary Science Reviews, 2018, 202, 139-153.	1.4	23

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19	The climate of a retrograde rotating Earth. <i>Earth System Dynamics</i> , 2018, 9, 1191-1215.	2.7	21
20	Plant functional diversity affects climate–vegetation interaction. <i>Biogeosciences</i> , 2018, 15, 1947-1968.	1.3	10
21	Could gradual changes in Holocene Saharan landscape have caused the observed abrupt shift in North Atlantic dust deposition?. <i>Earth and Planetary Science Letters</i> , 2017, 473, 104-112.	1.8	9
22	Biome changes in Asia since the mid-Holocene – an analysis of different transient Earth system model simulations. <i>Climate of the Past</i> , 2017, 13, 107-134.	1.3	19
23	Theory and Modeling of the African Humid Period and the Green Sahara. , 2017, , .		41
24	The link between marine sediment records and changes in Holocene Saharan landscape: simulating the dust cycle. <i>Climate of the Past</i> , 2016, 12, 1009-1027.	1.3	24
25	Asian irrigation, African rain: Remote impacts of irrigation. <i>Geophysical Research Letters</i> , 2016, 43, 3737-3745.	1.5	93
26	Simple tipping or complex transition? Lessons from a green Sahara. <i>Past Global Change Magazine</i> , 2016, 24, 20-21.	0.4	1
27	Radiative forcing and feedback by forests in warm climates – a sensitivity study. <i>Earth System Dynamics</i> , 2016, 7, 535-547.	2.7	4
28	International Geosphere–Biosphere Programme and Earth system science: Three decades of co-evolution. <i>Anthropocene</i> , 2015, 12, 3-16.	1.6	57
29	The Nexus of Climate Change, Land Use, and Conflict: Complex Human–Environment Interactions in Northern Africa. <i>Bulletin of the American Meteorological Society</i> , 2015, 96, 1561-1564.	1.7	8
30	Palaeo plant diversity in subtropical Africa – ecological assessment of a conceptual model of climate–vegetation interaction. <i>Climate of the Past</i> , 2015, 11, 1361-1374.	1.3	5
31	Implications of land use change in tropical northern Africa under global warming. <i>Earth System Dynamics</i> , 2015, 6, 769-780.	2.7	1
32	Transitivity of the climate–vegetation system in a warm climate. <i>Climate of the Past</i> , 2015, 11, 1563-1574.	1.3	5
33	Catalogue of abrupt shifts in Intergovernmental Panel on Climate Change climate models. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E5777-86.	3.3	182
34	The evolution of sub-monsoon systems in the Afro-Asian monsoon region during the Holocene – comparison of different transient climate model simulations. <i>Climate of the Past</i> , 2015, 11, 305-326.	1.3	25
35	Background albedo dynamics improve simulated precipitation variability in the Sahel region. <i>Earth System Dynamics</i> , 2014, 5, 89-101.	2.7	8
36	CO2-Induced Sahel Greening in Three CMIP5 Earth System Models. <i>Journal of Climate</i> , 2014, 27, 7163-7184.	1.2	21

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37	Spatial variability of Holocene changes in the annual precipitation pattern: a model-data synthesis for the Asian monsoon region. <i>Climate Dynamics</i> , 2013, 40, 2919-2936.	1.7	37
38	Effect of Anthropogenic Land-Use and Land-Cover Changes on Climate and Land Carbon Storage in CMIP5 Projections for the Twenty-First Century. <i>Journal of Climate</i> , 2013, 26, 6859-6881.	1.2	329
39	Simulated climate-vegetation interaction in semi-arid regions affected by plant diversity. <i>Nature Geoscience</i> , 2013, 6, 954-958.	5.4	71
40	Impact of soil moisture-climate feedbacks on CMIP5 projections: First results from the GLACE-CMIP5 experiment. <i>Geophysical Research Letters</i> , 2013, 40, 5212-5217.	1.5	314
41	Detecting hotspots of atmosphere-vegetation interaction via slowing down - Part 2: Application to a global climate model. <i>Earth System Dynamics</i> , 2013, 4, 79-93.	2.7	5
42	Detecting hotspots of atmosphere-vegetation interaction via slowing down - Part 1: A stochastic approach. <i>Earth System Dynamics</i> , 2013, 4, 63-78.	2.7	15
43	Climate and carbon cycle changes from 1850 to 2100 in MPI-ESM simulations for the Coupled Model Intercomparison Project phase 5. <i>Journal of Advances in Modeling Earth Systems</i> , 2013, 5, 572-597.	1.3	1,280
44	Evaluation of vegetation cover and land-surface albedo in MPI-ESM CMIP5 simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2013, 5, 48-57.	1.3	130
45	Impact of CO ₂ and climate on Last Glacial maximum vegetation - a factor separation. <i>Biogeosciences</i> , 2013, 10, 3593-3604.	1.3	26
46	The influence of vegetation dynamics on anthropogenic climate change. <i>Earth System Dynamics</i> , 2012, 3, 233-243.	2.7	27
47	Hidden glacial carbon. <i>Nature Geoscience</i> , 2012, 5, 6-7.	5.4	1
48	Implications of climate variability for the detection of multiple equilibria and for rapid transitions in the atmosphere-vegetation system. <i>Climate Dynamics</i> , 2012, 38, 1775-1790.	1.7	43
49	Local ecosystem feedbacks and critical transitions in the climate. <i>Ecological Complexity</i> , 2011, 8, 223-228.	1.4	54
50	The influence of land cover change in the Asian monsoon region on present-day and mid-Holocene climate. <i>Biogeosciences</i> , 2011, 8, 1499-1519.	1.3	33
51	The effect of a dynamic background albedo scheme on Sahel/Sahara precipitation during the mid-Holocene. <i>Climate of the Past</i> , 2011, 7, 117-131.	1.3	56
52	Holocene vegetation and biomass changes on the Tibetan Plateau - a model-pollen data comparison. <i>Climate of the Past</i> , 2011, 7, 881-901.	1.3	12
53	Strength of forest-albedo feedback in mid-Holocene climate simulations. <i>Climate of the Past</i> , 2011, 7, 1027-1039.	1.3	34
54	Simulated climate variability in the region of Rapa Nui during the last millennium. <i>Climate of the Past</i> , 2011, 7, 579-586.	1.3	23

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55	Coupled climate-carbon simulations indicate minor global effects of wars and epidemics on atmospheric CO ₂ between 800 and 1850. <i>Holocene</i> , 2011, 21, 843-851.	0.9	48
56	Impact of surface parameter uncertainties on the development of a trough in the Fram Strait region. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2010, 62, 377-392.	0.8	5
57	Contribution of oceanic and vegetation feedbacks to Holocene climate change in monsoonal Asia. <i>Climate of the Past</i> , 2010, 6, 195-218.	1.3	53
58	Climate and carbon-cycle variability over the last millennium. <i>Climate of the Past</i> , 2010, 6, 723-737.	1.3	284
59	Combined biogeophysical and biogeochemical effects of large-scale forest cover changes in the MPI earth system model. <i>Biogeosciences</i> , 2010, 7, 1383-1399.	1.3	144
60	Simulation of the last glacial cycle with a coupled climate ice-sheet model of intermediate complexity. <i>Climate of the Past</i> , 2010, 6, 229-244.	1.3	156
61	Mechanisms and time scales of glacial inception simulated with an Earth system model of intermediate complexity. <i>Climate of the Past</i> , 2009, 5, 245-258.	1.3	29
62	Late Quaternary vegetation-climate feedbacks. <i>Climate of the Past</i> , 2009, 5, 203-216.	1.3	74
63	Preface "Climate change: from the geological past to the uncertain future" a symposium honouring Andr�� Berger. <i>Climate of the Past</i> , 2009, 5, 707-711.	1.3	2
64	Geoengineering climate by stratospheric sulfur injections: Earth system vulnerability to technological failure. <i>Climatic Change</i> , 2009, 92, 243-259.	1.7	99
65	Global biogeophysical interactions between forest and climate. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	273
66	Climate variability-induced uncertainty in mid-Holocene atmosphere-ocean-vegetation feedbacks. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	12
67	Corrigendum to Preface "Climate change: from the geological past to the uncertain future" a symposium honouring Andr�� Berger published in <i>Clim. Past</i> , 5, 707-711, 2009. <i>Climate of the Past</i> , 2009, 5, 723-723.	1.3	0
68	Coherent high- and low-latitude control of the northwest African hydrological balance. <i>Nature Geoscience</i> , 2008, 1, 670-675.	5.4	233
69	A reconstruction of global agricultural areas and land cover for the last millennium. <i>Global Biogeochemical Cycles</i> , 2008, 22, .	1.9	475
70	40. Chronology and climate forcing of the last four interglacials. <i>Developments in Quaternary Sciences</i> , 2007, 7, 597-614.	0.1	2
71	39. Modelling the end of an interglacial (MIS 1, 5, 7, 9, 11). <i>Developments in Quaternary Sciences</i> , 2007, 7, 583-593.	0.1	4
72	1. Introduction to climate forcing and climate feedbacks. <i>Developments in Quaternary Sciences</i> , 2007, 7, 3-11.	0.1	3

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73	Biogeophysical effects of historical land cover changes simulated by six Earth system models of intermediate complexity. <i>Climate Dynamics</i> , 2006, 26, 587-600.	1.7	220
74	Sensitivity of the last glacial inception to initial and surface conditions. <i>Climate Dynamics</i> , 2006, 27, 333-344.	1.7	32
75	Synergy between small- and large-scale feedbacks of vegetation on the water cycle. <i>Global Change Biology</i> , 2005, 11, 1003-1012.	4.2	118
76	Transient simulation of the last glacial inception. Part I: glacial inception as a bifurcation in the climate system. <i>Climate Dynamics</i> , 2005, 24, 545-561.	1.7	121
77	Transient simulation of the last glacial inception. Part II: sensitivity and feedback analysis. <i>Climate Dynamics</i> , 2005, 24, 563-576.	1.7	62
78	EMIC Intercomparison Project (EMIPâ€“CO2): comparative analysis of EMIC simulations of climate, and of equilibrium and transient responses to atmospheric CO2 doubling. <i>Climate Dynamics</i> , 2005, 25, 363-385.	1.7	96
79	Did Humankind Prevent a Holocene Glaciation?. <i>Climatic Change</i> , 2005, 69, 409-417.	1.7	33
80	Quantifying the effect of vegetation dynamics on the climate of the Last Glacial Maximum. <i>Climate of the Past</i> , 2005, 1, 1-7.	1.3	46
81	Role of land cover changes for atmospheric CO2 increase and climate change during the last 150 years. <i>Global Change Biology</i> , 2004, 10, 1253-1266.	4.2	244
82	Nonlinearities, Feedbacks and Critical Thresholds within the Earth's Climate System. <i>Climatic Change</i> , 2004, 65, 11-38.	1.7	229
83	Hans Ertel and potential vorticity a century of geophysical fluid dynamics. <i>Meteorologische Zeitschrift</i> , 2004, 13, 451-451.	0.5	1
84	Climate Change in Northern Africa: The Past is Not the Future. <i>Climatic Change</i> , 2003, 57, 99-118.	1.7	109
85	KlimaÃ¤nderungen: MÃ¶gliche Ursachen in Vergangenheit und Zukunft. <i>Environmental Sciences Europe</i> , 2003, 15, 21-30.	0.1	4
86	Simulated global-scale response of the climate system to Dansgaard/Oeschger and Heinrich events. <i>Climate Dynamics</i> , 2003, 21, 361-370.	1.7	58
87	Carbon cycle, vegetation, and climate dynamics in the Holocene: Experiments with the CLIMBER-2 model. <i>Global Biogeochemical Cycles</i> , 2002, 16, 86-1-86-20.	1.9	302
88	Earth system models: a test using the mid-Holocene in the Southern Hemisphere. <i>Quaternary Science Reviews</i> , 2002, 21, 819-824.	1.4	35
89	Earth system models of intermediate complexity: closing the gap in the spectrum of climate system models. <i>Climate Dynamics</i> , 2002, 18, 579-586.	1.7	411
90	Biogeophysical versus biogeochemical feedbacks of large-scale land cover change. <i>Geophysical Research Letters</i> , 2001, 28, 1011-1014.	1.5	279

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91	CLIMBER-2: a climate system model of intermediate complexity. Part II: model sensitivity. <i>Climate Dynamics</i> , 2001, 17, 735-751.	1.7	196
92	CLIMBER-2: a climate system model of intermediate complexity. Part I: model description and performance for present climate. <i>Climate Dynamics</i> , 2000, 16, 1-17.	1.7	367
93	Mid-Holocene greening of the Sahara: first results of the GAIM 6000 year BP Experiment with two asynchronously coupled atmosphere/biome models. <i>Climate Dynamics</i> , 2000, 16, 643-659.	1.7	137
94	Comparison of the last interglacial climate simulated by a coupled global model of intermediate complexity and an AOGCM. <i>Climate Dynamics</i> , 2000, 16, 799-814.	1.7	62
95	Modelling climate response to historical land cover change. <i>Global Ecology and Biogeography</i> , 1999, 8, 509-517.	2.7	153
96	Title is missing!. <i>Environmental Modeling and Assessment</i> , 1999, 4, 209-216.	1.2	11
97	Simulation of an abrupt change in Saharan vegetation in the Mid-Holocene. <i>Geophysical Research Letters</i> , 1999, 26, 2037-2040.	1.5	510
98	Simulation of modern and glacial climates with a coupled global model of intermediate complexity. <i>Nature</i> , 1998, 391, 351-356.	13.7	403
99	Analysis of rainfall records: possible relation to self-organized criticality. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 254, 557-568.	1.2	44
100	Simulation of the global bio-geophysical interactions during the Last Glacial Maximum. <i>Climate Dynamics</i> , 1998, 14, 461-471.	1.7	90
101	On multiple solutions of the atmosphere-vegetation system in present-day climate. <i>Global Change Biology</i> , 1998, 4, 549-559.	4.2	111
102	Modelling global terrestrial vegetation-climate interaction. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 1998, 353, 53-63.	1.8	103
103	On the stability of the atmosphere-vegetation system in the Sahara/Sahel region. <i>Journal of Geophysical Research</i> , 1998, 103, 31613-31624.	3.3	225
104	The Influence of Vegetation-Atmosphere-Ocean Interaction on Climate During the Mid-Holocene. <i>Science</i> , 1998, 280, 1916-1919.	6.0	360
105	On multiple solutions of the atmosphere-vegetation system in present-day climate. <i>Global Change Biology</i> , 1998, 4, 549-559.	4.2	41
106	The Greening of the Sahara during the Mid-Holocene: Results of an Interactive Atmosphere-Biome Model. <i>Global Ecology and Biogeography Letters</i> , 1997, 6, 369.	0.6	287
107	Modeling bio-geophysical feedback in the African and Indian monsoon region. <i>Climate Dynamics</i> , 1997, 13, 247-257.	1.7	173
108	Variability of global biome patterns as a function of initial and boundary conditions in a climate model. <i>Climate Dynamics</i> , 1996, 12, 371-379.	1.7	18

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109	The impact of sub-grid scale sea-ice inhomogeneities on the performance of the atmospheric general circulation model ECHAM3. <i>Climate Dynamics</i> , 1996, 12, 477-496.	1.7	26
110	Estimation of regional heat and moisture fluxes in homogeneous terrain with bluff roughness elements. <i>Journal of Hydrology</i> , 1995, 166, 353-369.	2.3	19
111	Flux aggregation at large scales: on the limits of validity of the concept of blending height. <i>Journal of Hydrology</i> , 1995, 166, 371-382.	2.3	45
112	Landscape variability and surface flux parameterization in climate models. <i>Agricultural and Forest Meteorology</i> , 1995, 73, 181-188.	1.9	32
113	Biomes computed from simulated climatologies. <i>Climate Dynamics</i> , 1994, 9, 235-243.	1.7	56
114	Modification of blending procedure in a proposed new PBL Resistance Law. <i>Boundary-Layer Meteorology</i> , 1994, 68, 201-205.	1.2	5
115	Biomes computed from simulated climatologies. <i>Climate Dynamics</i> , 1994, 9, 235-243.	1.7	16
116	On coupling global biome models with climate models. <i>Climate Research</i> , 1994, 4, 203-221.	0.4	117
117	On the momentum forcing of a large-scale sea-ice model. <i>Climate Dynamics</i> , 1993, 9, 71-80.	1.7	32
118	Estimation of areally-averaged surface fluxes. <i>Boundary-Layer Meteorology</i> , 1991, 54, 387-410.	1.2	139
119	Local advection processes in the surface layer of the marginal ice zone. <i>Boundary-Layer Meteorology</i> , 1991, 54, 1-27.	1.2	31
120	Area-averaging of surface fluxes in a neutrally stratified, horizontally inhomogeneous atmospheric boundary layer. <i>Atmospheric Environment Part A General Topics</i> , 1990, 24, 1349-1360.	1.3	96
121	Neutral surface-layer flow over isolated roughness strips. <i>Boundary-Layer Meteorology</i> , 1989, 48, 431-442.	1.2	3
122	Models of eddy viscosity for numerical simulation of horizontally inhomogeneous, neutral surface-layer flow. <i>Boundary-Layer Meteorology</i> , 1988, 42, 337-369.	1.2	13
123	On the inner-layer scale height of boundary-layer flow over low hills. <i>Boundary-Layer Meteorology</i> , 1988, 44, 411-413.	1.2	9
124	The flow in a turbulent boundary layer upstream of a change in surface roughness. <i>Boundary-Layer Meteorology</i> , 1987, 40, 31-86.	1.2	28
125	Estimation of the Monin-Obukhov similarity functions from a spectral model. <i>Boundary-Layer Meteorology</i> , 1985, 33, 233-243.	1.2	4
126	A model of turbulence spectra in the atmospheric surface layer. <i>Boundary-Layer Meteorology</i> , 1985, 33, 151-172.	1.2	21

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127	Surface-layer similarity in turbulent circular Couette flow. <i>Journal of Fluid Mechanics</i> , 1984, 144, 123-131.	1.4	4
128	On extension of Malkus' theory of turbulence to stably stratified shear flow. <i>Boundary-Layer Meteorology</i> , 1983, 27, 209-215.	1.2	3