Malte Meinshausen

List of Publications by Year
in descending order

99 papers	27,287 citations	36203 51 h-index	34900 98 g-index
148 all docs	148 docs citations	148 times ranked	27938 citing authors

#	Article	IF	Citations
1	GWP*is a model, not a metric. Environmental Research Letters, 2022, 17, 041002.	2.2	16
2	From emission scenarios to spatially resolved projections with a chain of computationally efficient emulators: coupling of MAGICC (v7.5.1) and MESMER (v0.8.3). Geoscientific Model Development, 2022, 15, 2085-2103.	1.3	12
3	Realization of Paris Agreement pledges may limit warming just below 2â€‰Â°C. Nature, 2022, 604, 304-309.	13.7	242
4	Multi-century dynamics of the climate and carbon cycle under both high and net negative emissions scenarios. Earth System Dynamics, 2022, 13, 885-909.	2.7	17
5	Existing fossil fuel extraction would warm the world beyond 1.5 Â°C. Environmental Research Letters, 2022, 17, 064010.	2.2	47
6	Carbon removals from nature restoration are no substitute for steep emission reductions. One Earth, 2022, 5, 812-824.	3.6	17
7	Country-resolved combined emission and socio-economic pathways based on the Representative Concentration Pathway (RCP) and Shared Socio-Economic Pathway (SSP) scenarios. Earth System Science Data, 2021, 13, 1005-1040.	3.7	22
8	Climate model projections from the Scenario Model Intercomparison ProjectÂ(ScenarioMIP) of CMIP6. Earth System Dynamics, 2021, 12, 253-293.	2.7	236
9	It Is Still Possible to Achieve the Paris Climate Agreement: Regional, Sectoral, and Land-Use Pathways. Energies, 2021, 14, 2103.	1.6	35
10	Reduced Complexity Model Intercomparison Project Phase 2: Synthesizing Earth System Knowledge for Probabilistic Climate Projections. Earth's Future, 2021, 9, e2020EF001900.	2.4	28
11	Can updated climate pledges limit warming well below 2Â°C?. Science, 2021, 374, 693-695.	6.0	80
12	Cost and attainability of meeting stringent climate targets without overshoot. Nature Climate Change, 2021, 11, 1063-1069.	8.1	102
13	Dynamic modelling shows substantial contribution of ecosystem restoration to climate change mitigation. Environmental Research Letters, 2021, 16, 124061.	2.2	8
14	Opportunities and challenges in using remaining carbon budgets to guide climate policy. Nature Geoscience, 2020, 13, 769-779.	5.4	68
15	Projecting Antarctica's contribution to future sea level rise from basal ice shelf melt using linear response functions of 16 ice sheet models (LARMIP-2). Earth System Dynamics, 2020, 11, 35-76.	2.7	92
16	Implications of non-linearities between cumulative CO₂ emissions and CO₂-induced warming for assessing the remaining carbon budget. Environmental Research Letters, 2020, 15, 074017.	2.2	9
17	The shared socio-economic pathway (SSP) greenhouse gas concentrations and their extensions to 2500. Geoscientific Model Development, 2020, 13, 3571-3605.	1.3	539
18	Reduced Complexity Model Intercomparison Project Phase 1: introduction and evaluation of global-mean temperature response. Geoscientific Model Development, 2020, 13, 5175-5190.	1.3	70

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19	Silicone v1.0.0: an open-source Python package for inferring missing emissions data for climate change research. Geoscientific Model Development, 2020, 13, 5259-5275.	1.3	24
20	Attributing long-term sea-level rise to Paris Agreement emission pledges. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23487-23492.	3.3	35
21	A new scenario logic for the Paris Agreement long-term temperature goal. Nature, 2019, 573, 357-363.	13.7	307
22	The effects of climate extremes on global agricultural yields. Environmental Research Letters, 2019, 14, 054010.	2.2	382
23	Implications of the Developed Scenarios for Climate Change. , 2019, , 459-469.		3
24	Southern Hemisphere subtropical drying as a transient response to warming. Nature Climate Change, 2019, 9, 232-236.	8.1	26
25	The Zero Emissions Commitment Model Intercomparison Project (ZECMIP) contribution to C4MIP: quantifying committed climate changes following zero carbon emissions. Geoscientific Model Development, 2019, 12, 4375-4385.	1.3	56
26	Mitigation Scenarios for Non-energy GHG. , 2019, , 79-91.		8
27	Warming assessment of the bottom-up Paris Agreement emissions pledges. Nature Communications, 2018, 9, 4810.	5.8	67
28	Understanding the origin of Paris Agreement emission uncertainties. Nature Communications, 2017, 8, 15748.	5.8	82
29	A roadmap for rapid decarbonization. Science, 2017, 355, 1269-1271.	6.0	815
30	Equitable mitigation to achieve the Paris Agreement goals. Nature Climate Change, 2017, 7, 38-43.	8.1	270
31	Linking sea level rise and socioeconomic indicators under the Shared Socioeconomic Pathways. Environmental Research Letters, 2017, 12, 114002.	2.2	39
32	Historical greenhouse gas concentrations for climate modelling (CMIP6). Geoscientific Model Development, 2017, 10, 2057-2116.	1.3	350
33	Synthesizing long-term sea level rise projections â€“ the MAGICC sea level model v2.0. Geoscientific Model Development, 2017, 10, 2495-2524.	1.3	70
34	The PMIP4 contribution to CMIP6 â€“ Part 3: The last millennium, scientific objective, and experimental design for the PMIP4 <i>past1000</i> simulations. Geoscientific Model Development, 2017, 10, 4005-4033.	1.3	155
35	National contributions for decarbonizing the world economy in line with the G7 agreement. Environmental Research Letters, 2016, 11, 054005.	2.2	37
36	A probabilistic study of the return of stratospheric ozone to 1960 levels. Geophysical Research Letters, 2016, 43, 9289-9297.	1.5	2

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37	The world's biggest gamble. Earth's Future, 2016, 4, 465-470.	2.4	70
38	Probability-Weighted Ensembles of U.S. County-Level Climate Projections for Climate Risk Analysis. Journal of Applied Meteorology and Climatology, 2016, 55, 2301-2322.	0.6	36
39	Paris Agreement climate proposals need a boost to keep warming well below 2â€‰Â°C. Nature, 2016, 534, 631-639.	13.7	2,397
40	Impact of short-lived non-CO ₂ mitigation on carbon budgets for stabilizing global warming. Environmental Research Letters, 2015, 10, 075001.	2.2	63
41	Mitigation choices impact carbon budget size compatible with low temperature goals. Environmental Research Letters, 2015, 10, 075003.	2.2	29
42	Complementing thermosteric sea level rise estimates. Geoscientific Model Development, 2015, 8, 2723-2734.	1.3	10
43	Observation-based modelling of permafrost carbon fluxes with accounting for deep carbon deposits and thermokarst activity. Biogeosciences, 2015, 12, 3469-3488.	1.3	114
44	Zero emission targets as long-term global goals for climate protection. Environmental Research Letters, 2015, 10, 105007.	2.2	220
45	National post-2020 greenhouse gas targets and diversity-aware leadership. Nature Climate Change, 2015, 5, 1098-1106.	8.1	91
46	Projecting Antarctic ice discharge using response functions from SeaRISE ice-sheet models. Earth System Dynamics, 2014, 5, 271-293.	2.7	103
47	Implications of potentially lower climate sensitivity on climate projections and policy. Environmental Research Letters, 2014, 9, 031003.	2.2	48
48	Disentangling the effects of CO ₂ and short-lived climate forcer mitigation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16325-16330.	3.3	114
49	Probabilistic projections of the Atlantic overturning. Climatic Change, 2014, 127, 579-586.	1.7	32
50	Uncertainties in CMIP5 Climate Projections due to Carbon Cycle Feedbacks. Journal of Climate, 2014, 27, 511-526.	1.2	870
51	Questions of bias in climate models. Nature Climate Change, 2014, 4, 741-742.	8.1	4
52	Can air pollutant controls change global warming?. Environmental Science and Policy, 2014, 41, 33-43.	2.4	11
53	Economic mitigation challenges: how further delay closes the door for achieving climate targets. Environmental Research Letters, 2013, 8, 034033.	2.2	172
54	Probabilistic cost estimates for climate change mitigation. Nature, 2013, 493, 79-83.	13.7	255

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55	Limiting global warming to 2â€‰Â°C is unlikely to save most coral reefs. Nature Climate Change, 2013, 3, 165-170.	8.1	410
56	Intercomparison of the capabilities of simplified climate models to project the effects of aviation CO2 on climate. Atmospheric Environment, 2013, 75, 321-328.	1.9	12
57	A new climate dataset for systematic assessments of climate change impacts as a function of global warming. Geoscientific Model Development, 2013, 6, 1689-1703.	1.3	24
58	A scaling approach to project regional sea level rise and its uncertainties. Earth System Dynamics, 2013, 4, 11-29.	2.7	120
59	Carbon dioxide and climate impulse response functions for the computation of greenhouse gas metrics: a multi-model analysis. Atmospheric Chemistry and Physics, 2013, 13, 2793-2825.	1.9	517
60	Climate models without preindustrial volcanic forcing underestimate historical ocean thermal expansion. Geophysical Research Letters, 2013, 40, 1600-1604.	1.5	54
61	A Scaling Approach to Probabilistic Assessment of Regional Climate Change. Journal of Climate, 2012, 25, 3117-3144.	1.2	53
62	The impact of surplus units from the first Kyoto period on achieving the reduction pledges of the CancÃºn Agreements. Climatic Change, 2012, 114, 401-408.	1.7	3
63	Global warming under old and new scenarios using IPCC climate sensitivity range estimates. Nature Climate Change, 2012, 2, 248-253.	8.1	632
64	Estimating the near-surface permafrost-carbon feedback on global warming. Biogeosciences, 2012, 9, 649-665.	1.3	160
65	The benefits of climate change mitigation in integrated assessment models: the role of the carbon cycle and climate component. Climatic Change, 2012, 113, 897-917.	1.7	29
66	Copenhagen Accord Pledges imply higher costs for staying below 2Â°C warming. Climatic Change, 2012, 113, 551-561.	1.7	52
67	Emission pathways consistent with a 2â€‰Â°C global temperature limit. Nature Climate Change, 2011, 1, 413-418.	8.1	262
68	Changes in global-mean precipitation in response to warming, greenhouse gas forcing and black carbon. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	51
69	The HadGEM2-ES implementation of CMIP5 centennial simulations. Geoscientific Model Development, 2011, 4, 543-570.	1.3	803
70	Emulating coupled atmosphere-ocean and carbon cycle models with a simpler model, MAGICC6 â€“ Part 1: Model description and calibration. Atmospheric Chemistry and Physics, 2011, 11, 1417-1456.	1.9	590
71	Emulating atmosphere-ocean and carbon cycle models with a simpler model, MAGICC6 â€“ Part 2: Applications. Atmospheric Chemistry and Physics, 2011, 11, 1457-1471.	1.9	126
72	Decision support for international climate policy â€“ The PRIMAP emission module. Environmental Modelling and Software, 2011, 26, 1419-1433.	1.9	20

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73	How well do integrated assessment models simulate climate change?. Climatic Change, 2011, 104, 255-285.	1.7	127
74	The representative concentration pathways: an overview. Climatic Change, 2011, 109, 5-31.	1.7	5,871
75	Global and regional evolution of short-lived radiatively-active gases and aerosols in the Representative Concentration Pathways. Climatic Change, 2011, 109, 191-212.	1.7	393
76	The RCP greenhouse gas concentrations and their extensions from 1765 to 2300. Climatic Change, 2011, 109, 213-241.	1.7	2,948
77	Emulating Atlantic overturning strength for low emission scenarios: consequences for sea-level rise along the North American east coast. Earth System Dynamics, 2011, 2, 191-200.	2.7	12
78	Discrepancies in historical emissions point to a wider 2020 gap between 2â€‰Â°C benchmarks and aggregated national mitigation pledges. Environmental Research Letters, 2011, 6, 024002.	2.2	19
79	Future changes in global warming potentials under representative concentration pathways. Environmental Research Letters, 2011, 6, 024020.	2.2	61
80	Climate change under a scenario near 1.5 Â°C of global warming: monsoon intensification, ocean warming and steric sea level rise. Earth System Dynamics, 2011, 2, 25-35.	2.7	53
81	Copenhagen Accord pledges are paltry. Nature, 2010, 464, 1126-1128.	13.7	207
82	Misrepresentation of the IPCC CO2 emission scenarios. Nature Geoscience, 2010, 3, 376-377.	5.4	66
83	Analysis of the Copenhagen Accord pledges and its global climatic impactsâ€"a snapshot of dissonant ambitions. Environmental Research Letters, 2010, 5, 034013.	2.2	44
84	Uncertainties of global warming metrics: CO₂ and CH₄. Geophysical Research Letters, 2010, 37, .	1.5	56
85	The exit strategy. Nature Climate Change, 2009, 1, 56-58.	8.1	24
86	Halfway to Copenhagen, no way to 2 Â°C. Nature Climate Change, 2009, 1, 81-83.	8.1	32
87	Greenhouse-gas emission targets for limiting global warming to 2â€‰Â°C. Nature, 2009, 458, 1158-1162.	13.7	2,245
88	Warming caused by cumulative carbon emissions towards the trillionth tonne. Nature, 2009, 458, 1163-1166.	13.7	1,282
89	Temperature increase of 21st century mitigation scenarios. IOP Conference Series: Earth and Environmental Science, 2009, 6, 492012.	0.2	0
90	Missing the turn towards a low-emission path?. Climatic Change, 2008, 91, 233-236.	1.7	9

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91	A Review of Uncertainties in Global Temperature Projections over the Twenty-First Century. Journal of Climate, 2008, 21, 2651-2663.	1.2	209
92	Near-linear cost increase to reduce climate-change risk. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20621-20626.	3.3	14
93	Temperature increase of 21st century mitigation scenarios. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15258-15262.	3.3	139
94	Multi-gas emission envelopes to meet greenhouse gas concentration targets: Costs versus certainty of limiting temperature increase. Global Environmental Change, 2007, 17, 260-280.	3.6	72
95	Multi-gas Emissions Pathways to Meet Climate Targets. Climatic Change, 2006, 75, 151-194.	1.7	95
96	How Much Warming are We Committed to and How Much can be Avoided?. Climatic Change, 2006, 75, 111-149.	1.7	105
97	Meeting the EU 2Â°C climate target: global and regional emission implications. Climate Policy, 2006, 6, 545-564.	2.6	40
98	Meeting the EU 2Â°C climate target: global and regional emission implications. Climate Policy, 2006, 6, 545-564.	2.6	15
99	Regionally aggregated, stitched and deâ€drifted CMIPâ€climate data, processed with netCDFâ€SCM v2.0.0. Geoscience Data Journal, 0, , .	1.8	8