Myles Allen

List of Publications by Citations

132 papers	14,338 citations	54 h-index	119 g-index
145 ext. papers	16,836 ext. citations	13.3 avg, IF	6.72 L-index

#	Paper	IF	Citations
132	Constraints on future changes in climate and the hydrologic cycle. *Nature*, **2002**, 419, 224-32	50.4	1810
131	Greenhouse-gas emission targets for limiting global warming to 2 degrees C. *Nature*, **2009**, 458, 1158-62	50.4	1707
130	Human contribution to the European heatwave of 2003. *Nature*, **2004**, 432, 610-4	50.4	990
129	Warming caused by cumulative carbon emissions towards the trillionth tonne. *Nature*, **2009**, 458, 1163-6	50.4	955
128	Anthropogenic greenhouse gas contribution to flood risk in England and Wales in autumn 2000. *Nature*, **2011**, 470, 382-5	50.4	608
127	Testing the Clausius□Clapeyron constraint on changes in extreme precipitation under CO2 warming. *Climate Dynamics*, **2007**, 28, 351-363	4.2	377
126	Emission budgets and pathways consistent with limiting warming to 1.5 □C. *Nature Geoscience*, **2017**, 10, 741-747	18.3	320
125	Decadal predictability of North Atlantic sea surface temperature and climate. *Nature*, **1997**, 388, 563-567	50.4	315
124	Estimating signal amplitudes in optimal fingerprinting, part I: theory. *Climate Dynamics*, **2003**, 21, 477-491	4.2	309
123	Liability for climate change. *Nature*, **2003**, 421, 891-2	50.4	274
122	Reconciling two approaches to attribution of the 2010 Russian heat wave. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	246
121	Energy budget constraints on climate response. *Nature Geoscience*, **2013**, 6, 415-416	18.3	228
120	Human influence on climate in the 2014 southern England winter floods and their impacts. *Nature Climate Change*, **2016**, 6, 627-634	21.4	189
119	Constraining the Ratio of Global Warming to Cumulative CO2 Emissions Using CMIP5 Simulations*. *Journal of Climate*, **2013**, 26, 6844-6858	4.4	187
118	Differences between carbon budget estimates unravelled. *Nature Climate Change*, **2016**, 6, 245-252	21.4	183
117	Estimation of natural and anthropogenic contributions to twentieth century temperature change. *Journal of Geophysical Research*, **2002**, 107, ACL 10-1		181
116	A Review of Uncertainties in Global Temperature Projections over the Twenty-First Century. *Journal of Climate*, **2008**, 21, 2651-2663	4.4	180

115	Risk management and climate change. *Nature Climate Change*, **2013**, 3, 447-450	21.4	163
114	Half a degree additional warming, prognosis and projected impacts (HAPPI): background and experimental design. *Geoscientific Model Development*, **2017**, 10, 571-583	6.3	162
113	Towards objective probabalistic climate forecasting. *Nature*, **2002**, 419, 228	50.4	161
112	The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018. *Atmospheric Environment*, **2021**, 244, 117834	5.3	160
111	Towards constraining climate sensitivity by linear analysis of feedback patterns in thousands of perturbed-physics GCM simulations. *Climate Dynamics*, **2008**, 30, 175-190	4.2	159
110	Regional climate response to solar-radiation management. *Nature Geoscience*, **2010**, 3, 537-541	18.3	144
109	A solution to the misrepresentations of CO2-equivalent emissions of short-lived climate pollutants under ambitious mitigation. *Npj Climate and Atmospheric Science*, **2018**, 1,	8	136
108	weather@home□development and validation of a very large ensemble modelling system for probabilistic event attribution. *Quarterly Journal of the Royal Meteorological Society*, **2015**, 141, 1528-1545	6.4	135
107	Potential influences on the United Kingdom's floods of winter 2013/14. *Nature Climate Change*, **2014**, 4, 769-777	21.4	122
106	Constraining climate forecasts: The role of prior assumptions. *Geophysical Research Letters*, **2005**, 32,	4.9	120
105	Constraints on climate change from a multi-thousand member ensemble of simulations. *Geophysical Research Letters*, **2005**, 32,	4.9	119
104	The End-to-End Attribution Problem: From Emissions to Impacts. *Climatic Change*, **2005**, 71, 303-318	4.5	113
103	Sensitivity of Twentieth-Century Sahel Rainfall to Sulfate Aerosol and CO2 Forcing. *Journal of Climate*, **2011**, 24, 4999-5014	4.4	106
102	New use of global warming potentials to compare cumulative and short-lived climate pollutants. *Nature Climate Change*, **2016**, 6, 773-776	21.4	104
101	A real-time Global Warming Index. *Scientific Reports*, **2017**, 7, 15417	4.9	101
100	Broad range of 2050 warming from an observationally constrained large climate model ensemble. *Nature Geoscience*, **2012**, 5, 256-260	18.3	98
99	Improved calculation of warming-equivalent emissions for short-lived climate pollutants. *Npj Climate and Atmospheric Science*, **2019**, 2, 29	8	82
98	Sensitivity analysis of the climate of a chaotic system. *Tellus, Series A: Dynamic Meteorology and Oceanography*, **2000**, 52, 523-532	2	81

97	Atmosphere. Call off the quest. *Science*, **2007**, 318, 582-3	33.3	78
96	Detection and attribution of changes in 20th century land precipitation. *Geophysical Research Letters*, **2004**, 31, n/a-n/a	4.9	78
95	The many possible climates from the Paris Agreement's aim of 1.5 °C warming. *Nature*, **2018**, 558, 41-49	50.4	77
94	A modified impulse-response representation of the global near-surface air temperature and atmospheric concentration response to carbon dioxide emissions. *Atmospheric Chemistry and Physics*, **2017**, 17, 7213-7228	6.8	75
93	Equivalence of greenhouse-gas emissions for peak temperature limits. *Nature Climate Change*, **2012**, 2, 535-538	21.4	75
92	FAIR v1.3: a simple emissions-based impulse response and carbon cycle model. *Geoscientific Model Development*, **2018**, 11, 2273-2297	6.3	75
91	Detecting anthropogenic influence with a multi-model ensemble. *Geophysical Research Letters*, **2002**, 29, 31-1-31-4	4.9	73
90	The role of short-lived climate pollutants in meeting temperature goals. *Nature Climate Change*, **2013**, 3, 1021-1024	21.4	72
89	How linear is the Arctic Oscillation response to greenhouse gases?. *Journal of Geophysical Research*, **2002**, 107, ACL 1-1		72
88	Demonstrating GWP*: a means of reporting warming-equivalent emissions that captures the contrasting impacts of short- and longlived climate pollutants. *Environmental Research Letters*, **2020**, 15, 044023	6.2	69
87	Impact of delay in reducing carbon dioxide emissions. *Nature Climate Change*, **2014**, 4, 23-26	21.4	69
86	Perspectives on the causes of exceptionally low 2015 snowpack in the western United States. *Geophysical Research Letters*, **2016**, 43, 10,980	4.9	65
85	Higher CO2 concentrations increase extreme event risk in a 1.5 °C world. *Nature Climate Change*, **2018**, 8, 604-608	21.4	63
84	Two Approaches to Quantifying Uncertainty in Global Temperature Changes. *Journal of Climate*, **2006**, 19, 4785-4796	4.4	57
83	weather@home 2: validation of an improved global–regional climate modelling system. *Geoscientific Model Development*, **2017**, 10, 1849-1872	6.3	56
82	A novel bias correction methodology for climate impact simulations. *Earth System Dynamics*, **2016**, 7, 71-88	4.8	56
81	The Detection and Attribution of Human Influence on Climate. *Annual Review of Environment and Resources*, **2009**, 34, 1-16	17.2	55
80	Mapping the climate change challenge. *Nature Climate Change*, **2016**, 6, 663-668	21.4	54

79	Constraints on Model Response to Greenhouse Gas Forcing and the Role of Subgrid-Scale Processes. *Journal of Climate*, **2008**, 21, 2384-2400	4.4	52
78	Direct observations of skin-bulk SST variability. *Geophysical Research Letters*, **2000**, 27, 1171-1174	4.9	50
77	Incorporating model uncertainty into attribution of observed temperature change. *Geophysical Research Letters*, **2006**, 33,	4.9	48
76	Focus on cumulative emissions, global carbon budgets and the implications for climate mitigation targets. *Environmental Research Letters*, **2018**, 13, 010201	6.2	47
75	Climate change. Uncertainty in the IPCC's Third Assessment Report. *Science*, **2001**, 293, 430-3	33.3	44
74	Are Changes in Global Precipitation Constrained by the Tropospheric Energy Budget?. *Journal of Climate*, **2009**, 22, 499-517	4.4	42
73	Policy instruments for limiting global temperature rise to 1.5°C can humanity rise to the challenge?. *Climate Policy*, **2018**, 18, 275-286	5.3	41
72	Comparison of methods: Attributing the 2014 record European temperatures to human influences. *Geophysical Research Letters*, **2016**, 43, 8685-8693	4.9	41
71	Comment on "The global tree restoration potential". *Science*, **2019**, 366,	33.3	40
70	Quantifying anthropogenic influence on recent near-surface temperature change. *Surveys in Geophysics*, **2006**, 27, 491-544	7.6	40
69	Nature-based solutions can help cool the planet - if we act now. *Nature*, **2021**, 593, 191-194	50.4	38
68	Alternatives to stabilization scenarios. *Geophysical Research Letters*, **2006**, 33,	4.9	37
67	Constraining uncertainties in climate models using climate change detection techniques. *Geophysical Research Letters*, **2000**, 27, 569-572	4.9	37
66	Estimating Carbon Budgets for Ambitious Climate Targets. *Current Climate Change Reports*, **2017**, 3, 69-77		36
65	The blame game. *Nature*, **2004**, 432, 551-2	50.4	35
64	Uncertain impacts on economic growth when stabilizing global temperatures at 1.5°C or 2°C warming. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2018**, 376,	3	34
63	Probable causes of late twentieth century tropospheric temperature trends. *Climate Dynamics*, **2003**, 21, 573-591	4.2	34
62	Model structure in observational constraints on transient climate response. *Climatic Change*, **2015**, 131, 199-211	4.5	33

61	Seasonal spatial patterns of projected anthropogenic warming in complex terrain: a modeling study of the western US. *Climate Dynamics*, **2017**, 48, 2191-2213	4.2	32
60	Perspective has a strong effect on the calculation of historical contributions to global warming. *Environmental Research Letters*, **2017**, 12, 024022	6.2	32
59	Diagnosis of climate models in terms of transient climate response and feedback response time. *Atmospheric Science Letters*, **2008**, 9, 7-12	2.4	31
58	The role of stratospheric resolution in simulating the Arctic Oscillation response to greenhouse gases. *Geophysical Research Letters*, **2002**, 29, 138-1-138-4	4.9	29
57	Drivers of peak warming in a consumption-maximizing world. *Nature Climate Change*, **2016**, 6, 684-686	21.4	29
56	Current level and rate of warming determine emissions budgets under ambitious mitigation. *Nature Geoscience*, **2018**, 11, 574-579	18.3	27
55	Uncertainty in continental-scale temperature predictions. *Geophysical Research Letters*, **2006**, 33,	4.9	26
54	The meaning of net zero and how to get it right. *Nature Climate Change*, **2022**, 12, 15-21	21.4	26
53	Assessing mid-latitude dynamics in extreme event attribution systems. *Climate Dynamics*, **2017**, 48, 3889-3901	4.2	25
52	Estimates of Uncertainty in Predictions of Global Mean Surface Temperature. *Journal of Climate*, **2007**, 20, 843-855	4.4	25
51	The Detection and Attribution of Climate Change Using an Ensemble of Opportunity. *Journal of Climate*, **2007**, 20, 504-516	4.4	25
50	Constraining climate model properties using optimal fingerprint detection methods. *Climate Dynamics*, **2001**, 18, 277-295	4.2	25
49	Testing the robustness of the anthropogenic climate change detection statements using different empirical models. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 3192-3199	4.4	24
48	Predicting future uncertainty constraints on global warming projections. *Scientific Reports*, **2016**, 6, 18903	4.9	24
47	Sensitivity of Climate Change Detection and Attribution to the Characterization of Internal Climate Variability. *Journal of Climate*, **2014**, 27, 3477-3491	4.4	20
46	Operationalizing the net-negative carbon economy. *Nature*, **2021**, 596, 377-383	50.4	20
45	Stakeholder perceptions of event attribution in the loss and damage debate. *Climate Policy*, **2017**, 17, 533-550	5.3	19
44	Framing Climate Goals in Terms of Cumulative CO2-Forcing-Equivalent Emissions. *Geophysical Research Letters*, **2018**, 45, 2795-2804	4.9	19

43	Obtaining diverse behaviors in a climate model without the use of flux adjustments. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 2781-2793	4.4	19
42	Can correcting feature location in simulated mean climate improve agreement on projected changes?. *Geophysical Research Letters*, **2013**, 40, 354-358	4.9	19
41	Difficult but not impossible. *Nature Climate Change*, **2011**, 1, 72-72	21.4	18
40	Climate forecasting: possible or probable?. *Nature*, **2003**, 425, 242	50.4	18
39	A Multimodel Update on the Detection and Attribution of Global Surface Warming. *Journal of Climate*, **2007**, 20, 517-530	4.4	17
38	Control of tropical instability waves in the Pacific. *Geophysical Research Letters*, **1995**, 22, 2581-2584	4.9	17
37	Attribution of global surface warming without dynamical models. *Geophysical Research Letters*, **2005**, 32, n/a-n/a	4.9	16
36	Model error in weather and climate forecasting391-427		16
35	Increased outburst flood hazard from Lake Palcacocha due to human-induced glacier retreat. *Nature Geoscience*, **2021**, 14, 85-90	18.3	16
34	Anthropogenic influence on the changing likelihood of an exceptionally warm summer in Texas, 2011. *Geophysical Research Letters*, **2015**, 42, 2392-2400	4.9	15
33	Further improvement of warming-equivalent emissions calculation. *Npj Climate and Atmospheric Science*, **2021**, 4,	8	15
32	Anthropogenic Influence on the 2018 Summer Warm Spell in Europe: The Impact of Different Spatio-Temporal Scales. *Bulletin of the American Meteorological Society*, **2020**, 101, S41-S46	6.1	13
31	Assessing the robustness of zonal mean climate change detection. *Geophysical Research Letters*, **2002**, 29, 26-1-26-4	4.9	13
30	In defense of the traditional null hypothesis: remarks on the Trenberth and Curry WIREs opinion articles. *Wiley Interdisciplinary Reviews: Climate Change*, **2011**, 2, 931-934	8.4	11
29	Regional probabilistic climate forecasts from a multithousand, multimodel ensemble of simulations. *Journal of Geophysical Research*, **2007**, 112,		11
28	Return period of extreme rainfall substantially decreases under 1.5 °C and 2.0 °C warming: a case study for Uttarakhand, India. *Environmental Research Letters*, **2019**, 14, 044033	6.2	10
27	Test of a decadal climate forecast. *Nature Geoscience*, **2013**, 6, 243-244	18.3	10
26	Implications of event attribution for loss and damage policy. *Weather*, **2015**, 70, 268-273	0.9	10

25	The implications of carbon dioxide and methane exchange for the heavy mitigation RCP2.6 scenario under two metrics. *Environmental Science and Policy*, **2015**, 51, 77-87	6.2	9
24	FaIRv2.0.0: a generalized impulse response model for climate uncertainty and future scenario exploration. *Geoscientific Model Development*, **2021**, 14, 3007-3036	6.3	8
23	Allowing for solar forcing in the detection of human influence on tropospheric temperatures. *Geophysical Research Letters*, **2001**, 28, 1555-1558	4.9	7
22	Ensuring that offsets and other internationally transferred mitigation outcomes contribute effectively to limiting global warming. *Environmental Research Letters*, **2021**, 16, 074009	6.2	7
21	Temperature oscillations. *Nature*, **1992**, 359, 679-679	50.4	6
20	Upstream decarbonization through a carbon takeback obligation: An affordable backstop climate policy. *Joule*, **2021**,	27.8	6
19	Progressive supply-side policy under the Paris Agreement to enhance geological carbon storage. *Climate Policy*, **2021**, 21, 63-77	5.3	6
18	Forced summer stationary waves: the opposing effects of direct radiative forcing and sea surface warming. *Climate Dynamics*, **2019**, 53, 4291-4309	4.2	5
17	Quantifying aviation's contribution to global warming. *Environmental Research Letters*, **2021**, 16, 104027	6.2	5
16	Can correcting feature location in simulated mean climate improve agreement on projected changes? **2013**, 40, 354		5
15	Evaluation of a large ensemble regional climate modelling system for extreme weather events analysis over Bangladesh. *International Journal of Climatology*, **2019**, 39, 2845-2861	3.5	5
14	Quantifying uncertainty in future Southern Hemisphere circulation trends. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	4
13	Correcting precipitation feature location in general circulation models. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 13,350-13,369	4.4	3
12	The impact of stratospheric resolution on the detectability of climate change signals in the free atmosphere. *Geophysical Research Letters*, **2013**, 40, 937-942	4.9	3
11	Climate of the twentieth century: Detection of change and attribution of causes. *Weather*, **2002**, 57, 296-303	0.9	3
10	Potential for improved ATSR dual-view SST retrieval. *Geophysical Research Letters*, **1998**, 25, 3363-3366	4.9	3
9	The scientific basis for climate change liability8-22		3
8	Assessing changes in risk of amplified planetary waves in a warming world. *Atmospheric Science Letters*, **2019**, 20, e929	2.4	2

7	Indicate separate contributions of long-lived and short-lived greenhouse gases in emission targets.. *Npj Climate and Atmospheric Science*, **2022**, 5, 5	8	2
6	Forecast-based attribution of a winter heatwave within the limit of predictability. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	2
5	Comment on "Unintentional unfairness when applying new greenhouse gas emissions metrics at country level" *Environmental Research Letters*, **2021**, 16, 068001	6.2	2
4	Increasing the detectability of external influence on precipitation by correcting feature location in GCMs. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 12,466-12,478	4.4	1
3	Quantifying non-CO2 contributions to remaining carbon budgets. *Npj Climate and Atmospheric Science*, **2021**, 4,	8	1
2	Methane and the Paris Agreement temperature goals. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2022**, 380, 20200456	3	0
1	Transformations to regenerative food systems: An outline of the FixOurFood project. *Nutrition Bulletin*, **2022**, 47, 106-114	3.5	