

Andrew J Wiltshire

List of Publications by Year in descending order

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Version: 2024-02-01

85
papers

18,463
citations

53751

45
h-index

53190

85
g-index

88
all docs

88
docs citations

88
times ranked

23115
citing authors

#	ARTICLE	IF	CITATIONS
1	An alert system for Seasonal Fire probability forecast for South American Protected Areas. <i>Climate Resilience and Sustainability</i> , 2022, 1, .	0.9	9
2	Are Land Use Change Emissions in Southeast Asia Decreasing or Increasing?. <i>Global Biogeochemical Cycles</i> , 2022, 36, .	1.9	7
3	Understanding the role of land use emissions in achieving the Brazilian Nationally Determined Contribution to mitigate climate change. <i>Climate Resilience and Sustainability</i> , 2022, 1, .	0.9	9
4	Nitrogen cycle impacts on CO ₂ fertilisation and climate forcing of land carbon stores. <i>Environmental Research Letters</i> , 2022, 17, 044072.	2.2	6
5	Global Carbon Budget 2021. <i>Earth System Science Data</i> , 2022, 14, 1917-2005.	3.7	663
6	CO ₂ fertilization of crops offsets yield losses due to future surface ozone damage and climate change. <i>Environmental Research Letters</i> , 2022, 17, 074007.	2.2	12
7	Description and Evaluation of an Emission-Driven and Fully Coupled Methane Cycle in UKESM1. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	1.3	9
8	Plant phenology evaluation of CRESCENDO land surface models – Part 1: Start and end of the growing season. <i>Biogeosciences</i> , 2021, 18, 2405-2428.	1.3	19
9	JULES-CN: a coupled terrestrial carbon-nitrogen scheme (JULES vn5.1). <i>Geoscientific Model Development</i> , 2021, 14, 2161-2186.	1.3	32
10	Modelled land use and land cover change emissions – a spatio-temporal comparison of different approaches. <i>Earth System Dynamics</i> , 2021, 12, 635-670.	2.7	29
11	A multi-data assessment of land use and land cover emissions from Brazil during 2000–2019. <i>Environmental Research Letters</i> , 2021, 16, 074004.	2.2	33
12	Response to Comments on “Recent global decline of CO ₂ fertilization effects on vegetation photosynthesis”. <i>Science</i> , 2021, 373, eabg7484.	6.0	15
13	Assessment of pre-industrial to present-day anthropogenic climate forcing in UKESM1. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 1211-1243.	1.9	29
14	Climate-Driven Variability and Trends in Plant Productivity Over Recent Decades Based on Three Global Products. <i>Global Biogeochemical Cycles</i> , 2020, 34, e2020GB006613.	1.9	36
15	Spin-up of UK Earth System Model 1 (UKESM1) for CMIP6. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001933.	1.3	25
16	Recent global decline of CO ₂ fertilization effects on vegetation photosynthesis. <i>Science</i> , 2020, 370, 1295-1300.	6.0	317
17	Implementation of U.K. Earth System Models for CMIP6. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001946.	1.3	83
18	Is there warming in the pipeline? A multi-model analysis of the Zero Emissions Commitment from CO ₂ . <i>Biogeosciences</i> , 2020, 17, 2987-3016.	1.3	87

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19	Increased control of vegetation on global terrestrial energy fluxes. <i>Nature Climate Change</i> , 2020, 10, 356-362.	8.1	152
20	Skillful seasonal prediction of key carbon cycle components: NPP and fire risk. <i>Environmental Research Communications</i> , 2020, 2, 055002.	0.9	9
21	Soil carbon sequestration simulated in CMIP6-LUMIP models: implications for climatic mitigation. <i>Environmental Research Letters</i> , 2020, 15, 124061.	2.2	35
22	Effective radiative forcing and adjustments in CMIP6 models. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 9591-9618.	1.9	149
23	Carbon concentration and carbon climate feedbacks in CMIP6 models and their comparison to CMIP5 models. <i>Biogeosciences</i> , 2020, 17, 4173-4222.	1.3	255
24	Global Carbon Budget 2020. <i>Earth System Science Data</i> , 2020, 12, 3269-3340.	3.7	1,477
25	Robust Ecosystem Demography (RED version 1.0): a parsimonious approach to modelling vegetation dynamics in Earth system models. <i>Geoscientific Model Development</i> , 2020, 13, 4067-4089.	1.3	14
26	UKESM1: Description and Evaluation of the U.K. Earth System Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 4513-4558.	1.3	448
27	Representation of fire, land-use change and vegetation dynamics in the Joint UK Land Environment Simulator v4.9 (JULES). <i>Geoscientific Model Development</i> , 2019, 12, 179-193.	1.3	41
28	Global glacier volume projections under high-end climate change scenarios. <i>Cryosphere</i> , 2019, 13, 325-350.	1.5	66
29	Compensatory climate effects link trends in global runoff to rising atmospheric CO ₂ concentration. <i>Environmental Research Letters</i> , 2019, 14, 124075.	2.2	14
30	Global Carbon Budget 2019. <i>Earth System Science Data</i> , 2019, 11, 1783-1838.	3.7	1,159
31	Food security outcomes under a changing climate: impacts of mitigation and adaptation on vulnerability to food insecurity. <i>Climatic Change</i> , 2018, 147, 327-341.	1.7	78
32	Evaluating the Interplay Between Biophysical Processes and Leaf Area Changes in Land Surface Models. <i>Journal of Advances in Modeling Earth Systems</i> , 2018, 10, 1102-1126.	1.3	22
33	Evaluating Global Land Surface Models in CMIP5: Analysis of Ecosystem Water- and Light-Use Efficiencies and Rainfall Partitioning. <i>Journal of Climate</i> , 2018, 31, 2995-3008.	1.2	20
34	Plant Regrowth as a Driver of Recent Enhancement of Terrestrial CO ₂ Uptake. <i>Geophysical Research Letters</i> , 2018, 45, 4820-4830.	1.5	32
35	Land use change and El Niño-Southern Oscillation drive decadal carbon balance shifts in Southeast Asia. <i>Nature Communications</i> , 2018, 9, 1154.	5.8	28
36	Widespread seasonal compensation effects of spring warming on northern plant productivity. <i>Nature</i> , 2018, 562, 110-114.	13.7	240

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37	Reconciling global-model estimates and country reporting of anthropogenic forest CO ₂ sinks. <i>Nature Climate Change</i> , 2018, 8, 914-920.	8.1	101
38	Impact of the 2015/2016 El Niño on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170304.	1.8	63
39	A successful prediction of the record CO ₂ rise associated with the 2015/2016 El Niño. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170301.	1.8	22
40	Climate change and the global pattern of moraine-dammed glacial lake outburst floods. <i>Cryosphere</i> , 2018, 12, 1195-1209.	1.5	219
41	Vegetation distribution and terrestrial carbon cycle in a carbon cycle configuration of JULES4.6 with new plant functional types. <i>Geoscientific Model Development</i> , 2018, 11, 2857-2873.	1.3	49
42	Biophysics and vegetation cover change: a process-based evaluation framework for confronting land surface models with satellite observations. <i>Earth System Science Data</i> , 2018, 10, 1265-1279.	3.7	46
43	Global Carbon Budget 2018. <i>Earth System Science Data</i> , 2018, 10, 2141-2194.	3.7	1,167
44	Global Carbon Budget 2017. <i>Earth System Science Data</i> , 2018, 10, 405-448.	3.7	801
45	Evaluation of climate-related carbon turnover processes in global vegetation models for boreal and temperate forests. <i>Global Change Biology</i> , 2017, 23, 3076-3091.	4.2	52
46	Land management: data availability and process understanding for global change studies. <i>Global Change Biology</i> , 2017, 23, 512-533.	4.2	142
47	Variability and quasi-decadal changes in the methane budget over the period 2000–2012. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 11135-11161.	1.9	85
48	Evaluation of JULES-crop performance against site observations of irrigated maize from Mead, Nebraska. <i>Geoscientific Model Development</i> , 2017, 10, 1291-1320.	1.3	24
49	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. <i>Biogeosciences</i> , 2017, 14, 5053-5067.	1.3	58
50	Role of CO ₂ , climate and land use in regulating the seasonal amplitude increase of carbon fluxes in terrestrial ecosystems: a multimodel analysis. <i>Biogeosciences</i> , 2016, 13, 5121-5137.	1.3	26
51	The carbon cycle in Mexico: past, present and future of C stocks and fluxes. <i>Biogeosciences</i> , 2016, 13, 223-238.	1.3	24
52	The impact of structural error on parameter constraint in a climate model. <i>Earth System Dynamics</i> , 2016, 7, 917-935.	2.7	39
53	Terrestrial nitrogen cycling in Earth system models revisited. <i>New Phytologist</i> , 2016, 210, 1165-1168.	3.5	35
54	The terrestrial carbon budget of South and Southeast Asia. <i>Environmental Research Letters</i> , 2016, 11, 105006.	2.2	39

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55	Regional carbon fluxes from land use and land cover change in Asia, 1980â€“2009. Environmental Research Letters, 2016, 11, 074011.	2.2	31
56	Global Carbon Budget 2016. Earth System Science Data, 2016, 8, 605-649.	3.7	905
57	The global methane budget 2000â€“2012. Earth System Science Data, 2016, 8, 697-751.	3.7	824
58	Spatiotemporal patterns of terrestrial gross primary production: A review. Reviews of Geophysics, 2015, 53, 785-818.	9.0	432
59	Validation of an ensemble modelling system for climate projections for the northwest European shelf seas. Progress in Oceanography, 2015, 138, 211-237.	1.5	22
60	Climate and land use change impacts on global terrestrial ecosystems and river flows in the HadGEM2-ES Earth system model using the representative concentration pathways. Biogeosciences, 2015, 12, 1317-1338.	1.3	44
61	The dominant role of semi-arid ecosystems in the trend and variability of the land CO ₂ sink. Science, 2015, 348, 895-899.	6.0	1,002
62	JULES-crop: a parametrisation of crops in the Joint UK Land Environment Simulator. Geoscientific Model Development, 2015, 8, 1139-1155.	1.3	45
63	Nonlinear regional warming with increasing CO ₂ concentrations. Nature Climate Change, 2015, 5, 138-142.	8.1	55
64	Global Carbon Budget 2015. Earth System Science Data, 2015, 7, 349-396.	3.7	616
65	Global carbon budget 2014. Earth System Science Data, 2015, 7, 47-85.	3.7	463
66	Carbon residence time dominates uncertainty in terrestrial vegetation responses to future climate and atmospheric CO ₂ . Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3280-3285.	3.3	458
67	Effects of Irrigation in India on the Atmospheric Water Budget. Journal of Hydrometeorology, 2014, 15, 1028-1050.	0.7	55
68	Global carbon budget 2013. Earth System Science Data, 2014, 6, 235-263.	3.7	311
69	A retrospective analysis of pan Arctic permafrost using the JULES land surface model. Climate Dynamics, 2013, 41, 1025-1038.	1.7	35
70	The importance of population, climate change and CO ₂ plant physiological forcing in determining future global water stress. Global Environmental Change, 2013, 23, 1083-1097.	3.6	38
71	Regional projections of North Indian climate for adaptation studies. Science of the Total Environment, 2013, 468-469, S4-S17.	3.9	61
72	Climate change impacts on global agriculture. Climatic Change, 2013, 120, 357-374.	1.7	214

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73	Snowmelt contributions to discharge of the Ganges. <i>Science of the Total Environment</i> , 2013, 468-469, S93-S101.	3.9	86
74	More frequent occurrence of westerly disturbances in Karakoram up to 2100. <i>Science of the Total Environment</i> , 2013, 468-469, S31-S35.	3.9	76
75	Downscaled climate change projections with uncertainty assessment over India using a high resolution multi-model approach. <i>Science of the Total Environment</i> , 2013, 468-469, S18-S30.	3.9	138
76	Deep instability of deforested tropical peatlands revealed by fluvial organic carbon fluxes. <i>Nature</i> , 2013, 493, 660-663.	13.7	270
77	The Impact of Climate, CO ₂ and Population on Regional Food and Water Resources in the 2050s. <i>Sustainability</i> , 2013, 5, 2129-2151.	1.6	23
78	Adaptation to changing water resources in the Ganges basin, northern India. <i>Environmental Science and Policy</i> , 2011, 14, 758-769.	2.4	122
79	Can Regional Climate Models Represent the Indian Monsoon?. <i>Journal of Hydrometeorology</i> , 2011, 12, 849-868.	0.7	138
80	The HadGEM2 family of Met Office Unified Model climate configurations. <i>Geoscientific Model Development</i> , 2011, 4, 723-757.	1.3	765
81	Development and evaluation of an Earth-System model – HadGEM2. <i>Geoscientific Model Development</i> , 2011, 4, 1051-1075.	1.3	1,141
82	Validation of River Flows in HadGEM1 and HadCM3 with the TRIP River Flow Model. <i>Journal of Hydrometeorology</i> , 2011, 12, 1157-1180.	0.7	33
83	Predicting spatial and temporal patterns of budburst and spring frost risk in north-west Europe: the implications of local adaptation to climate. <i>Global Change Biology</i> , 2010, 16, 1503-1514.	4.2	125
84	Implications of climate change for agricultural productivity in the early twenty-first century. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2010, 365, 2973-2989.	1.8	733
85	Slope, aspect and climate: Spatially explicit and implicit models of topographic microclimate in chalk grassland. <i>Ecological Modelling</i> , 2008, 216, 47-59.	1.2	406