Andrew J Wiltshire

List of Publications by Year
in descending order

85 papers	18,463 citations	53794 45 h-index	53230 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. Climate Resilience and Sustainability, 2022, 1, .	2.3	9
2	Are Landâ€Use Change Emissions in Southeast Asia Decreasing or Increasing?. Global Biogeochemical Cycles, 2022, 36, .	4.9	7
3	Understanding the role of landâ€use emissions in achieving the Brazilian Nationally Determined Contribution to mitigate climate change. Climate Resilience and Sustainability, 2022, 1, .	2.3	9
4	Nitrogen cycle impacts on CO₂ fertilisation and climate forcing of land carbon stores. Environmental Research Letters, 2022, 17, 044072.	5.2	6
5	Global Carbon Budget 2021. Earth System Science Data, 2022, 14, 1917-2005.	9.9	663
6	CO₂ fertilization of crops offsets yield losses due to future surface ozone damage and climate change. Environmental Research Letters, 2022, 17, 074007.	5.2	12
7	Description and Evaluation of an Emissionâ€Driven and Fully Coupled Methane Cycle in UKESM1. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	9
8	Plant phenology evaluation of CRESCENDO land surface models â€“ Part 1: Start and end of the growing season. Biogeosciences, 2021, 18, 2405-2428.	3.3	19
9	JULES-CN: a coupled terrestrial carbonâ€“nitrogen scheme (JULES vn5.1). Geoscientific Model Development, 2021, 14, 2161-2186.	3.6	32
10	Modelled land use and land cover change emissions â€“ a spatio-temporal comparison of different approaches. Earth System Dynamics, 2021, 12, 635-670.	7.1	29
11	A multi-data assessment of land use and land cover emissions from Brazil during 2000â€“2019. Environmental Research Letters, 2021, 16, 074004.	5.2	33
12	Response to Comments on â€œRecent global decline of CO ₂ fertilization effects on vegetation photosynthesisâ€. Science, 2021, 373, eabg7484.	12.6	15
13	Assessment of pre-industrial to present-day anthropogenic climate forcing in UKESM1. Atmospheric Chemistry and Physics, 2021, 21, 1211-1243.	4.9	29
14	Climateâ€Driven Variability and Trends in Plant Productivity Over Recent Decades Based on Three Global Products. Global Biogeochemical Cycles, 2020, 34, e2020GB006613.	4.9	36
15	Spinâ€up of UK Earth System Model 1 (UKESM1) for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001933.	3.8	25
16	Recent global decline of CO ₂ fertilization effects on vegetation photosynthesis. Science, 2020, 370, 1295-1300.	12.6	317
17	Implementation of U.K. Earth System Models for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001946.	3.8	83
18	Is there warming in the pipeline? A multi-model analysis of the Zero Emissions Commitment from CO₂. Biogeosciences, 2020, 17, 2987-3016.	3.3	87

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19	Increased control of vegetation on global terrestrial energy fluxes. Nature Climate Change, 2020, 10, 356-362.	18.8	152
20	Skillful seasonal prediction of key carbon cycle components: NPP and fire risk. Environmental Research Communications, 2020, 2, 055002.	2.3	9
21	Soil carbon sequestration simulated in CMIP6-LUMIP models: implications for climatic mitigation. Environmental Research Letters, 2020, 15, 124061.	5.2	35
22	Effective radiative forcing and adjustments in CMIP6 models. Atmospheric Chemistry and Physics, 2020, 20, 9591-9618.	4.9	149
23	Carbonâ€“concentration and carbonâ€“climate feedbacks in CMIP6 models and their comparison to CMIP5 models. Biogeosciences, 2020, 17, 4173-4222.	3.3	255
24	Global Carbon Budget 2020. Earth System Science Data, 2020, 12, 3269-3340.	9.9	1,477
25	Robust Ecosystem Demography (RED version 1.0): a parsimonious approach to modelling vegetation dynamics in Earth system models. Geoscientific Model Development, 2020, 13, 4067-4089.	3.6	14
26	UKESM1: Description and Evaluation of the U.K. Earth System Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 4513-4558.	3.8	448
27	Representation of fire, land-use change and vegetation dynamics in the Joint UK Land Environment Simulator vn4.9 (JULES). Geoscientific Model Development, 2019, 12, 179-193.	3.6	41
28	Global glacier volume projections under high-end climate change scenarios. Cryosphere, 2019, 13, 325-350.	3.9	66
29	Compensatory climate effects link trends in global runoff to rising atmospheric CO₂ concentration. Environmental Research Letters, 2019, 14, 124075.	5.2	14
30	Global Carbon Budget 2019. Earth System Science Data, 2019, 11, 1783-1838.	9.9	1,159
31	Food security outcomes under a changing climate: impacts of mitigation and adaptation on vulnerability to food insecurity. Climatic Change, 2018, 147, 327-341.	3.6	78
32	Evaluating the Interplay Between Biophysical Processes and Leaf Area Changes in Land Surface Models. Journal of Advances in Modeling Earth Systems, 2018, 10, 1102-1126.	3.8	22
33	Evaluating Global Land Surface Models in CMIP5: Analysis of Ecosystem Water- and Light-Use Efficiencies and Rainfall Partitioning. Journal of Climate, 2018, 31, 2995-3008.	3.2	20
34	Plant Regrowth as a Driver of Recent Enhancement of Terrestrial CO₂ Uptake. Geophysical Research Letters, 2018, 45, 4820-4830.	4.0	32
35	Land use change and El NiÃ±o-Southern Oscillation drive decadal carbon balance shifts in Southeast Asia. Nature Communications, 2018, 9, 1154.	12.8	28
36	Widespread seasonal compensation effects of spring warming on northern plant productivity. Nature, 2018, 562, 110-114.	27.8	240

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37	Reconciling global-model estimates and country reporting of anthropogenic forest CO2 sinks. Nature Climate Change, 2018, 8, 914-920.	18.8	101
38	Impact of the 2015/2016 El NiÃ±o on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170304.	4.0	63
39	A successful prediction of the record CO ₂ rise associated with the 2015/2016 El NiÃ±o. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170301.	4.0	22
40	Climate change and the global pattern of moraine-dammed glacial lake outburst floods. Cryosphere, 2018, 12, 1195-1209.	3.9	219
41	Vegetation distribution and terrestrial carbon cycle in a carbon cycle configuration of JULES4.6 with new plant functional types. Geoscientific Model Development, 2018, 11, 2857-2873.	3.6	49
42	Biophysics and vegetation cover change: a process-based evaluation framework for confronting land surface models with satellite observations. Earth System Science Data, 2018, 10, 1265-1279.	9.9	46
43	Global Carbon Budget 2018. Earth System Science Data, 2018, 10, 2141-2194.	9.9	1,167
44	Global Carbon Budget 2017. Earth System Science Data, 2018, 10, 405-448.	9.9	801
45	Evaluation of climateâ€related carbon turnover processes in global vegetation models for boreal and temperate forests. Global Change Biology, 2017, 23, 3076-3091.	9.5	52
46	Land management: data availability and process understanding for global change studies. Global Change Biology, 2017, 23, 512-533.	9.5	142
47	Variability and quasi-decadal changes in the methane budget over the period 2000â€“2012. Atmospheric Chemistry and Physics, 2017, 17, 11135-11161.	4.9	85
48	Evaluation of JULES-crop performance against site observations of irrigated maize from Mead, Nebraska. Geoscientific Model Development, 2017, 10, 1291-1320.	3.6	24
49	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. Biogeosciences, 2017, 14, 5053-5067.	3.3	58
50	Role of CO₂, climate and land use in regulating the seasonal amplitude increase of carbon fluxes in terrestrial ecosystems: a multimodel analysis. Biogeosciences, 2016, 13, 5121-5137.	3.3	26
51	The carbon cycle in Mexico: past, present and future of C stocks and fluxes. Biogeosciences, 2016, 13, 223-238.	3.3	24
52	The impact of structural error on parameter constraint in a climate model. Earth System Dynamics, 2016, 7, 917-935.	7.1	39
53	Terrestrial nitrogen cycling in Earth system models revisited. New Phytologist, 2016, 210, 1165-1168.	7.3	35
54	The terrestrial carbon budget of South and Southeast Asia. Environmental Research Letters, 2016, 11, 105006.	5.2	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.	5.2	31
56	Global Carbon Budget 2016. Earth System Science Data, 2016, 8, 605-649.	9.9	905
57	The global methane budget 2000â€“2012. Earth System Science Data, 2016, 8, 697-751.	9.9	824
58	Spatiotemporal patterns of terrestrial gross primary production: A review. Reviews of Geophysics, 2015, 53, 785-818.	23.0	432
59	Validation of an ensemble modelling system for climate projections for the northwest European shelf seas. Progress in Oceanography, 2015, 138, 211-237.	3.2	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.	3.3	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.	12.6	1,002
62	JULES-crop: a parametrisation of crops in the Joint UK Land Environment Simulator. Geoscientific Model Development, 2015, 8, 1139-1155.	3.6	45
63	Nonlinear regional warming with increasing CO2Âconcentrations. Nature Climate Change, 2015, 5, 138-142.	18.8	55
64	Global Carbon Budget 2015. Earth System Science Data, 2015, 7, 349-396.	9.9	616
65	Global carbon budget 2014. Earth System Science Data, 2015, 7, 47-85.	9.9	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.	7.1	458
67	Effects of Irrigation in India on the Atmospheric Water Budget. Journal of Hydrometeorology, 2014, 15, 1028-1050.	1.9	55
68	Global carbon budget 2013. Earth System Science Data, 2014, 6, 235-263.	9.9	311
69	A retrospective analysis of pan Arctic permafrost using the JULES land surface model. Climate Dynamics, 2013, 41, 1025-1038.	3.8	35
70	The importance of population, climate change and CO2 plant physiological forcing in determining future global water stress. Global Environmental Change, 2013, 23, 1083-1097.	7.8	38
71	Regional projections of North Indian climate for adaptation studies. Science of the Total Environment, 2013, 468-469, S4-S17.	8.0	61
72	Climate change impacts on global agriculture. Climatic Change, 2013, 120, 357-374.	3.6	214

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73	Snowmelt contributions to discharge of the Ganges. Science of the Total Environment, 2013, 468-469, S93-S101.	8.0	86
74	More frequent occurrence of westerly disturbances in Karakoram up to 2100. Science of the Total Environment, 2013, 468-469, S31-S35.	8.0	76
75	Downscaled climate change projections with uncertainty assessment over India using a high resolution multi-model approach. Science of the Total Environment, 2013, 468-469, S18-S30.	8.0	138
76	Deep instability of deforested tropical peatlands revealed by fluvial organic carbon fluxes. Nature, 2013, 493, 660-663.	27.8	270
77	The Impact of Climate, CO2 and Population on Regional Food and Water Resources in the 2050s. Sustainability, 2013, 5, 2129-2151.	3.2	23
78	Adaptation to changing water resources in the Ganges basin, northern India. Environmental Science and Policy, 2011, 14, 758-769.	4.9	122
79	Can Regional Climate Models Represent the Indian Monsoon?. Journal of Hydrometeorology, 2011, 12, 849-868.	1.9	138
80	The HadGEM2 family of Met Office Unified Model climate configurations. Geoscientific Model Development, 2011, 4, 723-757.	3.6	765
81	Development and evaluation of an Earth-System model â€“ HadGEM2. Geoscientific Model Development, 2011, 4, 1051-1075.	3.6	1,141
82	Validation of River Flows in HadGEM1 and HadCM3 with the TRIP River Flow Model. Journal of Hydrometeorology, 2011, 12, 1157-1180.	1.9	33
83	Predicting spatial and temporal patterns of budâ€burst and spring frost risk in northâ€west Europe: the implications of local adaptation to climate. Global Change Biology, 2010, 16, 1503-1514.	9.5	125
84	Implications of climate change for agricultural productivity in the early twenty-first century. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 2973-2989.	4.0	733
85	Slope, aspect and climate: Spatially explicit and implicit models of topographic microclimate in chalk grassland. Ecological Modelling, 2008, 216, 47-59.	2.5	406