Eleanor J Burke

List of Publications by Year
in descending order

77 papers	6,296 citations	87888 38 h-index	71685 76 g-index
112 all docs	112 docs citations	112 times ranked	9013 citing authors

#	Article	IF	Citations
1	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
2	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.	4.9	517
3	Modeling the Recent Evolution of Global Drought and Projections for the Twenty-First Century with the Hadley Centre Climate Model. Journal of Hydrometeorology, 2006, 7, 1113-1125.	1.9	516
4	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
5	Assessing the impacts of 1.5â€¯Â°C global warming â€“ simulation protocol of the Inter-Sectoral Impact Model Intercomparison Project (ISIMIP2b). Geoscientific Model Development, 2017, 10, 4321-4345.	3.6	410
6	Dependence of the evolution of carbon dynamics in the northern permafrost region on the trajectory of climate change. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3882-3887.	7.1	296
7	An observation-based constraint on permafrost loss as a function of global warming. Nature Climate Change, 2017, 7, 340-344.	18.8	257
8	Evaluating Uncertainties in the Projection of Future Drought. Journal of Hydrometeorology, 2008, 9, 292-299.	1.9	219
9	Land-use emissions play a critical role in land-based mitigation for Paris climate targets. Nature Communications, 2018, 9, 2938.	12.8	194
10	A simplified, data-constrained approach to estimate the permafrost carbonâ€“climate feedback. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140423.	3.4	149
11	Variability in the sensitivity among model simulations of permafrost and carbon dynamics in the permafrost region between 1960 and 2009. Global Biogeochemical Cycles, 2016, 30, 1015-1037.	4.9	116
12	Climate policy implications of nonlinear decline of Arctic land permafrost and other cryosphere elements. Nature Communications, 2019, 10, 1900.	12.8	108
13	Reversibility in an Earth System model in response to CO ₂ concentration changes. Environmental Research Letters, 2012, 7, 024013.	5.2	102
14	An extreme value analysis of UK drought and projections of change in the future. Journal of Hydrology, 2010, 388, 131-143.	5.4	99
15	Uncertainties in the global temperature change caused by carbon release from permafrost thawing. Cryosphere, 2012, 6, 1063-1076.	3.9	94
16	Path-dependent reductions in CO2 emission budgets caused by permafrost carbon release. Nature Geoscience, 2018, 11, 830-835.	12.9	86
17	Soil moisture and hydrology projections of the permafrost region â€“ a model intercomparison. Cryosphere, 2020, 14, 445-459.	3.9	85
18	Historical Simulations With HadGEM3â€GC3.1 for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001995.	3.8	84

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19	An improved representation of physical permafrost dynamics in the JULES land-surface model. Geoscientific Model Development, 2015, 8, 1493-1508.	3.6	79
20	Evaluating permafrost physics in the Coupled Model Intercomparison Project 6 (CMIP6) models and their sensitivity to climate change. Cryosphere, 2020, 14, 3155-3174.	3.9	77
21	Carbon budgets for 1.5 and 2â€‰Â°C targets lowered by natural wetland and permafrost feedbacks. Nature Geoscience, 2018, 11, 568-573.	12.9	74
22	Simulation of permafrost and seasonal thaw depth in the JULES land surface scheme. Cryosphere, 2011, 5, 773-790.	3.9	73
23	The impact of climate mitigation on projections of future drought. Hydrology and Earth System Sciences, 2013, 17, 2339-2358.	4.9	71
24	A 16-year record (2002â€“2017) of permafrost, active-layer, and meteorological conditions at the Samoylov Island Arctic permafrost research site, Lena River delta, northern Siberia: an opportunity to validate remote-sensing data and land surface, snow, and permafrost models. Earth System Science Data, 2019, 11, 261-299.	9.9	69
25	Estimating the Permafrost-Carbon Climate Response in the CMIP5 Climate Models Using a Simplified Approach. Journal of Climate, 2013, 26, 4897-4909.	3.2	67
26	A vertical representation of soil carbon in the JULES land surface scheme (vn4.3_permafrost) with a focus on permafrost regions. Geoscientific Model Development, 2017, 10, 959-975.	3.6	63
27	Quantifying uncertainties of permafrost carbonâ€“climate feedbacks. Biogeosciences, 2017, 14, 3051-3066.	3.3	59
28	Regional drought over the UK and changes in the future. Journal of Hydrology, 2010, 394, 471-485.	5.4	56
29	Impact of model developments on present and future simulations of permafrost in a global land-surface model. Cryosphere, 2015, 9, 1505-1521.	3.9	54
30	A spatial emergent constraint on the sensitivity of soil carbon turnover to global warming. Nature Communications, 2020, 11, 5544.	12.8	50
31	Calibrating a soil water and energy budget model with remotely sensed data to obtain quantitative information about the soil. Water Resources Research, 1997, 33, 1689-1697.	4.2	48
32	Terrestrial ecosystem model performance in simulating productivity and its vulnerability to climate change in the northern permafrost region. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 430-446.	3.0	47
33	A 20-year record (1998â€“2017) of permafrost, active layer and meteorological conditions at a high Arctic permafrost research site (Bayelva, Spitsbergen). Earth System Science Data, 2018, 10, 355-390.	9.9	47
34	Research Note:Derivation of temperature lapse rates in semi-arid south-eastern Arizona. Hydrology and Earth System Sciences, 2004, 8, 1179-1185.	4.9	45
35	Response of the HadGEM2 Earth System Model to Future Greenhouse Gas Emissions Pathways to the Year 2300*. Journal of Climate, 2013, 26, 3275-3284.	3.2	45
36	Carbon stocks and fluxes in the high latitudes: using site-level data to evaluate Earth system models. Biogeosciences, 2017, 14, 5143-5169.	3.3	43

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37	Understanding the Sensitivity of Different Drought Metrics to the Drivers of Drought under Increased Atmospheric CO2. Journal of Hydrometeorology, 2011, 12, 1378-1394.	1.9	42
38	Site-level model intercomparison of high latitude and high altitude soil thermal dynamics in tundra and barren landscapes. Cryosphere, 2015, 9, 1343-1361.	3.9	41
39	Evaluation of airâ€“soil temperature relationships simulated by land surface models during winter across the permafrost region. Cryosphere, 2016, 10, 1721-1737.	3.9	38
40	Evaluation of model-derived and remotely sensed precipitation products for continental South America. Journal of Geophysical Research, 2006, 111, .	3.3	37
41	How uncertain are climate model projections of water availability indicators across the Middle East?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 5117-5135.	3.4	37
42	A retrospective analysis of pan Arctic permafrost using the JULES land surface model. Climate Dynamics, 2013, 41, 1025-1038.	3.8	35
43	Modeled Microbial Dynamics Explain the Apparent Temperature Sensitivity of Wetland Methane Emissions. Global Biogeochemical Cycles, 2020, 34, e2020GB006678.	4.9	34
44	JULES-CN: a coupled terrestrial carbonâ€“nitrogen scheme (JULES vn5.1). Geoscientific Model Development, 2021, 14, 2161-2186.	3.6	32
45	Diagnostic and model dependent uncertainty of simulated Tibetan permafrost area. Cryosphere, 2016, 10, 287-306.	3.9	29
46	Assessment of model estimates of land-atmosphere CO₂ exchange across Northern Eurasia. Biogeosciences, 2015, 12, 4385-4405.	3.3	25
47	CO ₂ loss by permafrost thawing implies additional emissions reductions to limit warming to 1.5 or 2â€‰Â°C. Environmental Research Letters, 2018, 13, 024024.	5.2	22
48	Toward a South America Land Data Assimilation System: Aspects of land surface model spin-up using the Simplified Simple Biosphere. Journal of Geophysical Research, 2006, 111, .	3.3	21
49	Climate change reduces winter overland travel across the Pan-Arctic even under low-end global warming scenarios. Environmental Research Letters, 2021, 16, 024049.	5.2	20
50	Simulated high-latitude soil thermal dynamics during the past 4 decades. Cryosphere, 2016, 10, 179-192.	3.9	17
51	The GRENE-TEA model intercomparison project (GTMIP): overview and experiment protocol for Stage 1. Geoscientific Model Development, 2015, 8, 2841-2856.	3.6	16
52	Research Note:The comparison of two models that determine the effects of a vegetation canopy on passive microwave emission. Hydrology and Earth System Sciences, 1999, 3, 439-444.	4.9	14
53	Implementing surface parameter aggregation rules in the CCM3 global climate model: regional responses at the land surface. Hydrology and Earth System Sciences, 1999, 3, 463-476.	4.9	14
54	The impact of the parameterization of heterogeneous vegetation on the modeled large-scale circulation in CCM3-BATS. Geophysical Research Letters, 2000, 27, 397-400.	4.0	14

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55	Snow cover duration trends observed at sites and predicted by multiple models. Cryosphere, 2020, 14, 4687-4698.	3.9	14
56	Estimating near-surface soil water content from passive microwave remote sensing-an application of MICRO-SWEAT. Hydrological Sciences Journal, 1998, 43, 521-534.	2.6	13
57	Effects of sub-pixel heterogeneity on the retrieval of soil moisture from passive microwave radiometry. International Journal of Remote Sensing, 2003, 24, 2085-2104.	2.9	13
58	Measuring Water Content in Saline Sands Using Impulse Time Domain Transmission Techniques. Vadose Zone Journal, 2003, 2, 433-439.	2.2	13
59	Reconciliation of top-down and bottom-up CO ₂ fluxes in Siberian larch forest. Environmental Research Letters, 2017, 12, 125012.	5.2	13
60	Flexible parameter-sparse global temperature time profiles that stabilise at 1.5 and 2.0â€¯Â°C. Earth System Dynamics, 2017, 8, 617-626.	7.1	12
61	Measuring the dielectric permittivity of a plant canopy and its response to changes in plant water status: An application of Impulse Time Domain Transmission. Plant and Soil, 2005, 268, 123-133.	3.7	11
62	A simple parameterisation for retrieving soil moisture from passive microwave data. Hydrology and Earth System Sciences, 2001, 5, 39-48.	4.9	10
63	Influence of vegetation on SMOS mission retrievals. Hydrology and Earth System Sciences, 2002, 6, 153-166.	4.9	9
64	Passive microwave emission from smooth bare soils: Developing a simple model to predict near surface water content. International Journal of Remote Sensing, 2001, 22, 3747-3761.	2.9	8
65	Application of a coupled microwave, energy and water transfer model to relate passive microwave emission from bare soils to near-surface water content and evaporation. Hydrology and Earth System Sciences, 1999, 3, 31-38.	4.9	7
66	Measuring Spectral Dielectric Properties Using Gated Time Domain Transmission Measurements. Vadose Zone Journal, 2003, 2, 424-432.	2.2	7
67	TEST OF A SENSIBLE HEAT FLUX â€" RADIOMETRIC SURFACE TEMPERATURE RELATIONSHIP FOR HAPEX-SAHEL. Boundary-Layer Meteorology, 1997, 84, 329-337.	2.3	6
68	Regional variation in the effectiveness of methane-based and land-based climate mitigation options. Earth System Dynamics, 2021, 12, 513-544.	7.1	6
69	A new approach to simulate peat accumulation, degradation and stability in a global land surface scheme (JULES vn5.8_accumulate_soil) for northern and temperate peatlands. Geoscientific Model Development, 2022, 15, 1633-1657.	3.6	6
70	Nitrogen cycle impacts on CO₂ fertilisation and climate forcing of land carbon stores. Environmental Research Letters, 2022, 17, 044072.	5.2	6
71	Explicitly modelling microtopography in permafrost landscapes in a land surface model (JULES) Tj ETQq1 1 0.784314 rgBT /Overlock 10	3.6	6
72	Evaluation of soil carbon dynamics after forest cover change in CMIP6 land models using chronosequences. Environmental Research Letters, 2021, 16, 074030.	5.2	5

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73	Application of a plane-stratified emission model to predict the effects of vegetation in passive microwave radiometry. Hydrology and Earth System Sciences, 2002, 6, 139-152.	4.9	5
74	Thawing Permafrost as a Nitrogen Fertiliser: Implications for Climate Feedbacks. Nitrogen, 2022, 3, 353-375.	1.3	4
75	APPLICATION OF IMPROVED ECOSYSTEM AERODYNAMICS IN REGIONAL WEATHER FORECASTS. , 2004, 14, 17-21.		3
76	Using MICRO-SWEAT to Model Microwave Brightness Temperatures Measured during SGP97. Journal of Hydrometeorology, 2003, 4, 460-472.	1.9	3
77	Simulating Increased Permafrost Peatland Plant Productivity in Response to Belowground Fertilisation Using the JULES Land Surface Model. Nitrogen, 2022, 3, 260-283.	1.3	2