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	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
2	Nitrogen cycle impacts on CO₂ fertilisation and climate forcing of land carbon stores. Environmental Research Letters, 2022, 17, 044072.	5.2	6
3	Explicitly modelling microtopography in permafrost landscapes in a land surface model (JULES) Tj ETQq1 1 0.784314 rgBT /Overlock 10	3.6	6
4	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
5	Thawing Permafrost as a Nitrogen Fertiliser: Implications for Climate Feedbacks. Nitrogen, 2022, 3, 353-375.	1.3	4
6	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
7	JULES-CN: a coupled terrestrial carbonâ€“nitrogen scheme (JULES vn5.1). Geoscientific Model Development, 2021, 14, 2161-2186.	3.6	32
8	Regional variation in the effectiveness of methane-based and land-based climate mitigation options. Earth System Dynamics, 2021, 12, 513-544.	7.1	6
9	Evaluation of soil carbon dynamics after forest cover change in CMIP6 land models using chronosequences. Environmental Research Letters, 2021, 16, 074030.	5.2	5
10	A spatial emergent constraint on the sensitivity of soil carbon turnover to global warming. Nature Communications, 2020, 11, 5544.	12.8	50
11	Modeled Microbial Dynamics Explain the Apparent Temperature Sensitivity of Wetland Methane Emissions. Global Biogeochemical Cycles, 2020, 34, e2020GB006678.	4.9	34
12	Historical Simulations With HadGEM3â€GC3.1 for CMIP6. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001995.	3.8	84
13	Soil moisture and hydrology projections of the permafrost region â€“ a model intercomparison. Cryosphere, 2020, 14, 445-459.	3.9	85
14	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
15	Snow cover duration trends observed at sites and predicted by multiple models. Cryosphere, 2020, 14, 4687-4698.	3.9	14
16	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
17	Climate policy implications of nonlinear decline of Arctic land permafrost and other cryosphere elements. Nature Communications, 2019, 10, 1900.	12.8	108
18	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

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19	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
20	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
21	Path-dependent reductions in CO2 emission budgets caused by permafrost carbon release. Nature Geoscience, 2018, 11, 830-835.	12.9	86
22	Land-use emissions play a critical role in land-based mitigation for Paris climate targets. Nature Communications, 2018, 9, 2938.	12.8	194
23	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
24	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
25	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
26	An observation-based constraint on permafrost loss as a function of global warming. Nature Climate Change, 2017, 7, 340-344.	18.8	257
27	Reconciliation of top-down and bottom-up CO ₂ fluxes in Siberian larch forest. Environmental Research Letters, 2017, 12, 125012.	5.2	13
28	Quantifying uncertainties of permafrost carbonâ€“climate feedbacks. Biogeosciences, 2017, 14, 3051-3066.	3.3	59
29	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
30	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
31	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
32	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
33	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
34	Diagnostic and model dependent uncertainty of simulated Tibetan permafrost area. Cryosphere, 2016, 10, 287-306.	3.9	29
35	Simulated high-latitude soil thermal dynamics during the past 4 decades. Cryosphere, 2016, 10, 179-192.	3.9	17
36	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

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37	Assessment of model estimates of land-atmosphere CO₂ exchange across Northern Eurasia. Biogeosciences, 2015, 12, 4385-4405.	3.3	25
38	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
39	The GRENE-TEA model intercomparison project (GTMIP): overview and experiment protocol for Stage 1. Geoscientific Model Development, 2015, 8, 2841-2856.	3.6	16
40	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
41	An improved representation of physical permafrost dynamics in the JULES land-surface model. Geoscientific Model Development, 2015, 8, 1493-1508.	3.6	79
42	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
43	A retrospective analysis of pan Arctic permafrost using the JULES land surface model. Climate Dynamics, 2013, 41, 1025-1038.	3.8	35
44	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
45	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
46	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
47	The impact of climate mitigation on projections of future drought. Hydrology and Earth System Sciences, 2013, 17, 2339-2358.	4.9	71
48	Reversibility in an Earth System model in response to CO ₂ concentration changes. Environmental Research Letters, 2012, 7, 024013.	5.2	102
49	Uncertainties in the global temperature change caused by carbon release from permafrost thawing. Cryosphere, 2012, 6, 1063-1076.	3.9	94
50	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
51	Simulation of permafrost and seasonal thaw depth in the JULES land surface scheme. Cryosphere, 2011, 5, 773-790.	3.9	73
52	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
53	An extreme value analysis of UK drought and projections of change in the future. Journal of Hydrology, 2010, 388, 131-143.	5.4	99
54	Regional drought over the UK and changes in the future. Journal of Hydrology, 2010, 394, 471-485.	5.4	56

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55	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
56	Evaluating Uncertainties in the Projection of Future Drought. Journal of Hydrometeorology, 2008, 9, 292-299.	1.9	219
57	Evaluation of model-derived and remotely sensed precipitation products for continental South America. Journal of Geophysical Research, 2006, 111, .	3.3	37
58	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
59	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
60	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
61	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
62	APPLICATION OF IMPROVED ECOSYSTEM AERODYNAMICS IN REGIONAL WEATHER FORECASTS. , 2004, 14, 17-21.		3
63	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
64	Measuring Water Content in Saline Sands Using Impulse Time Domain Transmission Techniques. Vadose Zone Journal, 2003, 2, 433-439.	2.2	13
65	Measuring Spectral Dielectric Properties Using Gated Time Domain Transmission Measurements. Vadose Zone Journal, 2003, 2, 424-432.	2.2	7
66	Using MICRO-SWEAT to Model Microwave Brightness Temperatures Measured during SGP97. Journal of Hydrometeorology, 2003, 4, 460-472.	1.9	3
67	Influence of vegetation on SMOS mission retrievals. Hydrology and Earth System Sciences, 2002, 6, 153-166.	4.9	9
68	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
69	A simple parameterisation for retrieving soil moisture from passive microwave data. Hydrology and Earth System Sciences, 2001, 5, 39-48.	4.9	10
70	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
71	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
72	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

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73	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
74	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
75	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
76	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
77	TEST OF A SENSIBLE HEAT FLUX â€“ RADIOMETRIC SURFACE TEMPERATURE RELATIONSHIP FOR HAPEX-SAHEL. Boundary-Layer Meteorology, 1997, 84, 329-337.	2.3	6