D M Lawrence

List of Publications by Year
in descending order

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188 papers	35,971 citations	4942 84 h-index	3476 182 g-index
243 all docs	243 docs citations	243 times ranked	26648 citing authors

#	Article	IF	Citations
1	The Community Climate System Model Version 4. Journal of Climate, 2011, 24, 4973-4991.	1.2	2,428
2	Climate change and the permafrost carbon feedback. Nature, 2015, 520, 171-179.	13.7	2,369
3	Regions of Strong Coupling Between Soil Moisture and Precipitation. Science, 2004, 305, 1138-1140.	6.0	2,337
4	The Community Earth System Model: A Framework for Collaborative Research. Bulletin of the American Meteorological Society, 2013, 94, 1339-1360.	1.7	1,848
5	The Community Earth System Model (CESM) Large Ensemble Project: A Community Resource for Studying Climate Change in the Presence of Internal Climate Variability. Bulletin of the American Meteorological Society, 2015, 96, 1333-1349.	1.7	1,723
6	The Community Earth System Model Version 2 (CESM2). Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001916.	1.3	935
7	The Community Land Model Version 5: Description of New Features, Benchmarking, and Impact of Forcing Uncertainty. Journal of Advances in Modeling Earth Systems, 2019, 11, 4245-4287.	1.3	692
8	Parameterization improvements and functional and structural advances in Version 4 of the Community Land Model. Journal of Advances in Modeling Earth Systems, 2011, 3, .	1.3	666
9	Improvements to the Community Land Model and their impact on the hydrological cycle. Journal of Geophysical Research, 2008, 113, .	3.3	649
10	GLACE: The Global Landâ€“Atmosphere Coupling Experiment. Part I: Overview. Journal of Hydrometeorology, 2006, 7, 590-610.	0.7	616
11	Improving canopy processes in the Community Land Model version 4 (CLM4) using global flux fields empirically inferred from FLUXNET data. Journal of Geophysical Research, 2011, 116, .	3.3	522
12	The Seasonal Atmospheric Response to Projected Arctic Sea Ice Loss in the Late Twenty-First Century. Journal of Climate, 2010, 23, 333-351.	1.2	447
13	Agricultural intensification and changes in cultivated areas, 1970â€“2005. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20675-20680.	3.3	436
14	Carbon release through abrupt permafrost thaw. Nature Geoscience, 2020, 13, 138-143.	5.4	434
15	Large influence of soil moisture on long-term terrestrial carbon uptake. Nature, 2019, 565, 476-479.	13.7	409
16	Harmonization of global land use change and management for the period 850â€“2100 (LUH2) for CMIP6. Geoscientific Model Development, 2020, 13, 5425-5464.	1.3	408
17	The Partitioning of Evapotranspiration into Transpiration, Soil Evaporation, and Canopy Evaporation in a GCM: Impacts on Landâ€“Atmosphere Interaction. Journal of Hydrometeorology, 2007, 8, 862-880.	0.7	399
18	A projection of severe near-surface permafrost degradation during the 21st century. Geophysical Research Letters, 2005, 32, .	1.5	370

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19	Parameterization improvements and functional and structural advances in Version 4 of the Community Land Model. Journal of Advances in Modeling Earth Systems, 2011, 3, n/a-n/a.	1.3	367
20	Improving the representation of hydrologic processes in Earth System Models. Water Resources Research, 2015, 51, 5929-5956.	1.7	366
21	The effect of vertically resolved soil biogeochemistry and alternate soil C and N models on C dynamics of CLM4. Biogeosciences, 2013, 10, 7109-7131.	1.3	359
22	Observed 20th century desert dust variability: impact on climate and biogeochemistry. Atmospheric Chemistry and Physics, 2010, 10, 10875-10893.	1.9	355
23	The Boreal Summer Intraseasonal Oscillation: Relationship between Northward and Eastward Movement of Convection. Journals of the Atmospheric Sciences, 2002, 59, 1593-1606.	0.6	352
24	The Land Use Model Intercomparison Project (LUMIP) contribution to CMIP6: rationale and experimental design. Geoscientific Model Development, 2016, 9, 2973-2998.	1.3	343
25	GLACE: The Global Landâ€“Atmosphere Coupling Experiment. Part II: Analysis. Journal of Hydrometeorology, 2006, 7, 611-625.	0.7	337
26	Contribution of land surface initialization to subseasonal forecast skill: First results from a multiâ€model experiment. Geophysical Research Letters, 2010, 37, .	1.5	330
27	Barriers to predicting changes in global terrestrial methane fluxes: analyses using CLM4Me, a methane biogeochemistry model integrated in CESM. Biogeosciences, 2011, 8, 1925-1953.	1.3	325
28	Impact of soil moistureâ€climate feedbacks on CMIP5 projections: First results from the GLACEâ€CMIP5 experiment. Geophysical Research Letters, 2013, 40, 5212-5217.	1.5	314
29	Incorporating organic soil into a global climate model. Climate Dynamics, 2008, 30, 145-160.	1.7	306
30	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.	3.3	296
31	Hillslope Hydrology in Global Change Research and Earth System Modeling. Water Resources Research, 2019, 55, 1737-1772.	1.7	281
32	The CCSM4 Land Simulation, 1850â€“2005: Assessment of Surface Climate and New Capabilities. Journal of Climate, 2012, 25, 2240-2260.	1.2	276
33	A framework for benchmarking land models. Biogeosciences, 2012, 9, 3857-3874.	1.3	267
34	A new synoptic scale resolving global climate simulation using the Community Earth System Model. Journal of Advances in Modeling Earth Systems, 2014, 6, 1065-1094.	1.3	262
35	Diagnosing Present and Future Permafrost from Climate Models. Journal of Climate, 2013, 26, 5608-5623.	1.2	258
36	Soil Moisture Memory in AGCM Simulations: Analysis of Global Landâ€“Atmosphere Coupling Experiment (GLACE) Data. Journal of Hydrometeorology, 2006, 7, 1090-1112.	0.7	257

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37	Expert assessment of vulnerability of permafrost carbon to climate change. Climatic Change, 2013, 119, 359-374.	1.7	257
38	Simulating the Biogeochemical and Biogeophysical Impacts of Transient Land Cover Change and Wood Harvest in the Community Climate System Model (CCSM4) from 1850 to 2100. Journal of Climate, 2012, 25, 3071-3095.	1.2	255
39	Carbonâ€“concentration and carbonâ€“climate feedbacks in CMIP6 models and their comparison to CMIP5 models. Biogeosciences, 2020, 17, 4173-4222.	1.3	255
40	High Climate Sensitivity in the Community Earth System Model Version 2 (CESM2). Geophysical Research Letters, 2019, 46, 8329-8337.	1.5	249
41	Climate Change Projections in CESM1(CAM5) Compared to CCSM4. Journal of Climate, 2013, 26, 6287-6308.	1.2	243
42	Climate Change Projections for the Twenty-First Century and Climate Change Commitment in the CCSM3. Journal of Climate, 2006, 19, 2597-2616.	1.2	239
43	Sensitivity of a model projection of nearâ€surface permafrost degradation to soil column depth and representation of soil organic matter. Journal of Geophysical Research, 2008, 113, .	3.3	239
44	Permafrost collapse is accelerating carbon release. Nature, 2019, 569, 32-34.	13.7	237
45	Permafrost carbonâ^'climate feedback is sensitive to deep soil carbon decomposability but not deep soil nitrogen dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3752-3757.	3.3	233
46	Arctic Landscapes in Transition: Responses to Thawing Permafrost. Eos, 2010, 91, 229-230.	0.1	230
47	Global gridded crop model evaluation: benchmarking, skills, deficiencies and implications. Geoscientific Model Development, 2017, 10, 1403-1422.	1.3	213
48	Implementing Plant Hydraulics in the Community Land Model, Version 5. Journal of Advances in Modeling Earth Systems, 2019, 11, 485-513.	1.3	213
49	Use of FLUXNET in the Community Land Model development. Journal of Geophysical Research, 2008, 113, .	3.3	210
50	Permafrost thaw and resulting soil moisture changes regulate projected high-latitude CO ₂ and CH ₄ emissions. Environmental Research Letters, 2015, 10, 094011.	2.2	208
51	Simulation of Present-Day and Future Permafrost and Seasonally Frozen Ground Conditions in CCSM4. Journal of Climate, 2012, 25, 2207-2225.	1.2	207
52	Evaluation of the carbon cycle components in the Norwegian Earth System Model (NorESM). Geoscientific Model Development, 2013, 6, 301-325.	1.3	207
53	Accelerated Arctic land warming and permafrost degradation during rapid sea ice loss. Geophysical Research Letters, 2008, 35, .	1.5	195
54	Higher climatological temperature sensitivity of soil carbon in cold than warm climates. Nature Climate Change, 2017, 7, 817-822.	8.1	195

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55	Fire dynamics during the 20th century simulated by the Community Land Model. Biogeosciences, 2010, 7, 1877-1902.	1.3	194
56	Presentâ€day irrigation mitigates heat extremes. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1403-1422.	1.2	194
57	Taking off the training wheels: the properties of a dynamic vegetation model without climate envelopes, CLM4.5(ED). Geoscientific Model Development, 2015, 8, 3593-3619.	1.3	192
58	Towards a multiscale crop modelling framework for climate change adaptation assessment. Nature Plants, 2020, 6, 338-348.	4.7	181
59	Improved modeling of permafrost dynamics in a GCM land-surface scheme. Geophysical Research Letters, 2007, 34, .	1.5	179
60	The International Land Model Benchmarking (ILAMB) System: Design, Theory, and Implementation. Journal of Advances in Modeling Earth Systems, 2018, 10, 2731-2754.	1.3	175
61	The contribution of snow condition trends to future ground climate. Climate Dynamics, 2010, 34, 969-981.	1.7	172
62	Contrasting urban and rural heat stress responses to climate change. Geophysical Research Letters, 2012, 39, .	1.5	170
63	Estimating the near-surface permafrost-carbon feedback on global warming. Biogeosciences, 2012, 9, 649-665.	1.3	160
64	Preindustrial-Control and Twentieth-Century Carbon Cycle Experiments with the Earth System Model CESM1(BGC). Journal of Climate, 2014, 27, 8981-9005.	1.2	156
65	LS3MIP (v1.0) contribution to CMIP6: the Land Surface, Snow and Soil moisture Model Intercomparison Project â€“ aims, setup and expected outcome. Geoscientific Model Development, 2016, 9, 2809-2832.	1.3	152
66	A simplified, data-constrained approach to estimate the permafrost carbonâ€“climate feedback. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140423.	1.6	149
67	Interannual Variations of the Intraseasonal Oscillation in the South Asian Summer Monsoon Region. Journal of Climate, 2001, 14, 2910-2922.	1.2	145
68	Projected changes in tropical cyclone activity under future warming scenarios using a high-resolution climate model. Climatic Change, 2018, 146, 547-560.	1.7	142
69	On the influence of shrub height and expansion on northern high latitude climate. Environmental Research Letters, 2012, 7, 015503.	2.2	140
70	Improved simulation of the terrestrial hydrological cycle in permafrost regions by the Community Land Model. Journal of Advances in Modeling Earth Systems, 2012, 4, .	1.3	135
71	Interannual Coupling between Summertime Surface Temperature and Precipitation over Land: Processes and Implications for Climate Change*. Journal of Climate, 2015, 28, 1308-1328.	1.2	135
72	A new fractional snowâ€covered area parameterization for the Community Land Model and its effect on the surface energy balance. Journal of Geophysical Research, 2012, 117, .	3.3	134

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73	Observed changes in dry-season water availability attributed to human-induced climate change. Nature Geoscience, 2020, 13, 477-481.	5.4	132
74	ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. Geoscientific Model Development, 2018, 11, 5027-5049.	1.3	119
75	Warming of hot extremes alleviated by expanding irrigation. Nature Communications, 2020, 11, 290.	5.8	118
76	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.	1.9	116
77	An evaluation of deep soil configurations in the CLM3 for improved representation of permafrost. Geophysical Research Letters, 2007, 34, .	1.5	114
78	Thermal optimality of net ecosystem exchange of carbon dioxide and underlying mechanisms. New Phytologist, 2012, 194, 775-783.	3.5	111
79	Permafrost response to increasing Arctic shrub abundance depends on the relative influence of shrubs on local soil cooling versus large-scale climate warming. Environmental Research Letters, 2011, 6, 045504.	2.2	109
80	Effects of model structural uncertainty on carbon cycle projections: biological nitrogen fixation as a case study. Environmental Research Letters, 2015, 10, 044016.	2.2	109
81	Assessing a dry surface layerâ€based soil resistance parameterization for the Community Land Model using GRACE and FLUXNETâ€MTE data. Journal of Geophysical Research D: Atmospheres, 2014, 119, 10,299.	1.2	107
82	Development and assessment of a coupled crop?climate model. Global Change Biology, 2007, 13, 169-183.	4.2	103
83	The Community Earth System Model: A Framework for Collaborative Research. Bulletin of the American Meteorological Society, 0, , 130204122247009.	1.7	103
84	Influence of landâ€atmosphere feedbacks on temperature and precipitation extremes in the GLACEâ€CMIP5 ensemble. Journal of Geophysical Research D: Atmospheres, 2016, 121, 607-623.	1.2	102
85	Dynamical response of equatorial Indian Ocean to intraseasonal winds: Zonal Flow. Geophysical Research Letters, 2001, 28, 4215-4218.	1.5	94
86	Implementation and Initial Evaluation of the Glimmer Community Ice Sheet Model in the Community Earth System Model. Journal of Climate, 2013, 26, 7352-7371.	1.2	89
87	Tundra vegetation change and impacts on permafrost. Nature Reviews Earth & Environment, 2022, 3, 68-84.	12.2	87
88	Soil moisture and hydrology projections of the permafrost region â€“ a model intercomparison. Cryosphere, 2020, 14, 445-459.	1.5	85
89	Tracking Seasonal Fluctuations in Land Water Storage Using Global Models and GRACE Satellites. Geophysical Research Letters, 2019, 46, 5254-5264.	1.5	84
90	Confronting Weather and Climate Models with Observational Data from Soil Moisture Networks over the United States. Journal of Hydrometeorology, 2016, 17, 1049-1067.	0.7	83

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91	Projected Future Changes in Vegetation in Western North America in the Twenty-First Century. Journal of Climate, 2013, 26, 3671-3687.	1.2	81
92	Influence of vegetation on the local climate and hydrology in the tropics: sensitivity to soil parameters. Climate Dynamics, 2004, 23, 45-61.	1.7	80
93	Monsoon Regimes in the CCSM3. Journal of Climate, 2006, 19, 2482-2495.	1.2	79
94	Modeling the Arctic freshwater system and its integration in the global system: Lessons learned and future challenges. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 540-566.	1.3	79
95	Improving the Representation of Polar Snow and Firn in the Community Earth System Model. Journal of Advances in Modeling Earth Systems, 2017, 9, 2583-2600.	1.3	78
96	The potential to reduce uncertainty in regional runoff projections from climate models. Nature Climate Change, 2019, 9, 926-933.	8.1	75
97	Simulating coupled carbon and nitrogen dynamics following mountain pine beetle outbreaks in the western United States. Journal of Geophysical Research, 2011, 116, .	3.3	73
98	Effects of excess ground ice on projections of permafrost in a warming climate. Environmental Research Letters, 2014, 9, 124006.	2.2	71
99	Improving maize growth processes in the community land model: Implementation and evaluation. Agricultural and Forest Meteorology, 2018, 250-251, 64-89.	1.9	71
100	Parametric Controls on Vegetation Responses to Biogeochemical Forcing in the CLM5. Journal of Advances in Modeling Earth Systems, 2019, 11, 2879-2895.	1.3	69
101	Sensitivity of wetland methane emissions to model assumptions: application and model testing against site observations. Biogeosciences, 2012, 9, 2793-2819.	1.3	68
102	Effects of Soil Moisture on the Responses of Soil Temperatures to Climate Change in Cold Regions*. Journal of Climate, 2013, 26, 3139-3158.	1.2	68
103	Verification of Landâ€“Atmosphere Coupling in Forecast Models, Reanalyses, and Land Surface Models Using Flux Site Observations. Journal of Hydrometeorology, 2018, 19, 375-392.	0.7	66
104	Matrix approach to land carbon cycle modeling: A case study with the Community Land Model. Global Change Biology, 2018, 24, 1394-1404.	4.2	64
105	Terrestrial contribution to the heterogeneity in hydrological changes under global warming. Water Resources Research, 2016, 52, 3127-3142.	1.7	60
106	Beyond Static Benchmarking: Using Experimental Manipulations to Evaluate Land Model Assumptions. Global Biogeochemical Cycles, 2019, 33, 1289-1309.	1.9	59
107	Less reliable water availability in the 21st century climate projections. Earth's Future, 2014, 2, 152-160.	2.4	59
108	Revisiting trends in wetness and dryness in the presence of internal climate variability and water limitations over land. Geophysical Research Letters, 2015, 42, 10,867.	1.5	58

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109	A <scp>GRACE</scp>â€based assessment of interannual groundwater dynamics in the <scp>C</scp>ommunity <scp>L</scp>and <scp>M</scp>odel. Water Resources Research, 2015, 51, 8817-8833.	1.7	57
110	Assessing the use of subgrid land model output to study impacts of land cover change. Journal of Geophysical Research D: Atmospheres, 2016, 121, 6133-6147.	1.2	57
111	The Global Gridded Crop Model Intercomparison phase 1 simulation dataset. Scientific Data, 2019, 6, 50.	2.4	57
112	Infiltration from the Pedon to Global Grid Scales: An Overview and Outlook for Land Surface Modeling. Vadose Zone Journal, 2019, 18, 1-53.	1.3	56
113	Global climate response to idealized deforestation in CMIP6 models. Biogeosciences, 2020, 17, 5615-5638.	1.3	55
114	Role of Fire in the Global Land Water Budget during the Twentieth Century due to Changing Ecosystems. Journal of Climate, 2017, 30, 1893-1908.	1.2	54
115	Model Structure and Climate Data Uncertainty in Historical Simulations of the Terrestrial Carbon Cycle (1850â€“2014). Global Biogeochemical Cycles, 2019, 33, 1310-1326.	1.9	53
116	Simulating Agriculture in the Community Land Model Version 5. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005529.	1.3	53
117	Representation of Plant Hydraulics in the Noahâ€MP Land Surface Model: Model Development and Multiscale Evaluation. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002214.	1.3	50
118	Implementing and Evaluating Variable Soil Thickness in the Community Land Model, Version 4.5 (CLM4.5). Journal of Climate, 2016, 29, 3441-3461.	1.2	49
119	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.	1.3	47
120	An annual cycle of vegetation in a GCM. Part I: implementation and impact on evaporation. Climate Dynamics, 2004, 22, 87-105.	1.7	46
121	Interactions between land use change and carbon cycle feedbacks. Global Biogeochemical Cycles, 2017, 31, 96-113.	1.9	46
122	Detecting the permafrost carbon feedback: talik formation and increased cold-season respiration as precursors to sink-to-source transitions. Cryosphere, 2018, 12, 123-144.	1.5	46
123	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.	3.7	46
124	Impact of fire on global land surface air temperature and energy budget for the 20th century due to changes within ecosystems. Environmental Research Letters, 2017, 12, 044014.	2.2	45
125	Quantifying uncertainties in projections of extremesâ€”a perturbed land surface parameter experiment. Climate Dynamics, 2011, 37, 1381-1398.	1.7	44
126	Representing Intrahillslope Lateral Subsurface Flow in the Community Land Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 4044-4065.	1.3	43

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127	Advances in Land Surface Modelling. Current Climate Change Reports, 2021, 7, 45-71.	2.8	43
128	Examining the Interaction of Growing Crops with Local Climate Using a Coupled Cropâ€“Climate Model. Journal of Climate, 2009, 22, 1393-1411.	1.2	41
129	Deforestation-induced climate change reduces carbon storage in remaining tropical forests. Nature Communications, 2022, 13, 1964.	5.8	41
130	Global patterns of crop yield stability under additional nutrient and water inputs. PLoS ONE, 2018, 13, e0198748.	1.1	40
131	Evaluation of airâ€“soil temperature relationships simulated by land surface models during winter across the permafrost region. Cryosphere, 2016, 10, 1721-1737.	1.5	38
132	Weak Landâ€“Atmosphere Coupling Strength in HadAM3: The Role of Soil Moisture Variability. Journal of Hydrometeorology, 2005, 6, 670-680.	0.7	37
133	An annual cycle of vegetation in a GCM. Part II: global impacts on climate and hydrology. Climate Dynamics, 2004, 22, 107-122.	1.7	36
134	How much climate change can be avoided by mitigation?. Geophysical Research Letters, 2009, 36, .	1.5	36
135	Evaluating the strength of the landâ€“atmosphere moisture feedback in Earth system models using satellite observations. Hydrology and Earth System Sciences, 2016, 20, 4837-4856.	1.9	36
136	Soil carbon sequestration simulated in CMIP6-LUMIP models: implications for climatic mitigation. Environmental Research Letters, 2020, 15, 124061.	2.2	35
137	Process-level model evaluation: a snow and heat transfer metric. Cryosphere, 2017, 11, 989-996.	1.5	34
138	Simulations of the 2004 North American Monsoon: NAMAP2. Journal of Climate, 2009, 22, 6716-6740.	1.2	33
139	Detecting regional patterns of changing CO ₂ flux in Alaska. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7733-7738.	3.3	33
140	Utilizing SMAP Soil Moisture Data to Constrain Irrigation in the Community Land Model. Geophysical Research Letters, 2018, 45, 12,892.	1.5	33
141	Divergent patterns of experimental and model-derived permafrost ecosystem carbon dynamics in response to Arctic warming. Environmental Research Letters, 2018, 13, 105002.	2.2	31
142	Global Heat Uptake by Inland Waters. Geophysical Research Letters, 2020, 47, e2020GL087867.	1.5	31
143	Issues Related to Incorporating Northern Peatlands into Global Climate Models. Geophysical Monograph Series, 0, , 19-35.	0.1	30
144	Seasonal to multi-year soil moisture drought forecasting. Npj Climate and Atmospheric Science, 2021, 4, .	2.6	30

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145	A machine learning approach to emulation and biophysical parameter estimation with the Community Land Model, version 5. Advances in Statistical Climatology, Meteorology and Oceanography, 2020, 6, 223-244.	0.6	30
146	The Atmospheric Response to Projected Terrestrial Snow Changes in the Late Twenty-First Century. Journal of Climate, 2010, 23, 6430-6437.	1.2	29
147	How Important is Vegetation Phenology for European Climate and Heat Waves?. Journal of Climate, 2013, 26, 10077-10100.	1.2	29
148	Diagnostic and model dependent uncertainty of simulated Tibetan permafrost area. Cryosphere, 2016, 10, 287-306.	1.5	29
149	Tripling of western US particulate pollution from wildfires in a warming climate. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2111372119.	3.3	29
150	Spin-up processes in the Community Land Model version 4 with explicit carbon and nitrogen components. Ecological Modelling, 2013, 263, 308-325.	1.2	27
151	The Benefits of Reduced Anthropogenic Climate changE (BRACE): a synthesis. Climatic Change, 2018, 146, 287-301.	1.7	27
152	Assessment of model estimates of land-atmosphere CO₂ exchange across Northern Eurasia. Biogeosciences, 2015, 12, 4385-4405.	1.3	25
153	Human impacts on 20th century fire dynamics and implications for global carbon and water trajectories. Global and Planetary Change, 2018, 162, 18-27.	1.6	25
154	Diagnostic evaluation of the Community Earth System Model in simulating mineral dust emission with insight into large-scale dust storm mobilization in the Middle East and North Africa (MENA). Aeolian Research, 2016, 21, 21-35.	1.1	24
155	Compatible Fossil Fuel CO2 Emissions in the CMIP6 Earth System Modelsâ€™ Historical and Shared Socioeconomic Pathway Experiments of the Twenty-First Century. Journal of Climate, 2021, 34, 2853-2875.	1.2	23
156	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.	1.3	22
157	Cover Crops May Cause Winter Warming in Snowâ€Covered Regions. Geophysical Research Letters, 2018, 45, 9889-9897.	1.5	22
158	Representing Intercell Lateral Groundwater Flow and Aquifer Pumping in the Community Land Model. Water Resources Research, 2021, 57, .	1.7	22
159	The Impact of Biomass Heat Storage on the Canopy Energy Balance and Atmospheric Stability in the Community Land Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 83-98.	1.3	21
160	Reconciling Canopy Interception Parameterization and Rainfall Forcing Frequency in the Community Land Model for Simulating Evapotranspiration of Rainforests and Oil Palm Plantations in Indonesia. Journal of Advances in Modeling Earth Systems, 2019, 11, 732-751.	1.3	21
161	Attributing the Carbon Cycle Impacts of CMIP5 Historical and Future Land Use and Land Cover Change in the Community Earth System Model (CESM1). Journal of Geophysical Research G: Biogeosciences, 2018, 123, 1732-1755.	1.3	20
162	A Comparison of the Diel Cycle of Modeled and Measured Latent Heat Flux During the Warm Season in a Colorado Subalpine Forest. Journal of Advances in Modeling Earth Systems, 2018, 10, 617-651.	1.3	19

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163	Coupled Climate Responses to Recent Australian Wildfire and COVIDâ€19 Emissions Anomalies Estimated in CESM2. Geophysical Research Letters, 2021, 48, e2021GL093841.	1.5	19
164	Simulated high-latitude soil thermal dynamics during the past 4 decades. Cryosphere, 2016, 10, 179-192.	1.5	17
165	The Response of Permafrost and Highâ€Latitude Ecosystems Under Largeâ€Scale Stratospheric Aerosol Injection and Its Termination. Earth's Future, 2019, 7, 605-614.	2.4	17
166	Multi-century dynamics of the climate and carbon cycle under both high and net negative emissions scenarios. Earth System Dynamics, 2022, 13, 885-909.	2.7	17
167	Biomass heat storage dampens diurnal temperature variations in forests. Environmental Research Letters, 2019, 14, 084026.	2.2	16
168	Changes in Wood Biomass and Crop Yields in Response to Projected CO₂, O₃, Nitrogen Deposition, and Climate. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 3262-3282.	1.3	15
169	Strong Local Evaporative Cooling Over Land Due to Atmospheric Aerosols. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002491.	1.3	15
170	Are GRACE-era Terrestrial Water Trends Driven by Anthropogenic Climate Change?. Advances in Meteorology, 2016, 2016, 1-9.	0.6	14
171	Effects of realistic land surface initializations on subseasonal to seasonal soil moisture and temperature predictability in North America and in changing climate simulated by CCSM4. Journal of Geophysical Research D: Atmospheres, 2014, 119, 13,250.	1.2	13
172	Ground subsidence effects on simulating dynamic high-latitude surface inundation under permafrost thaw using CLM5. Geoscientific Model Development, 2019, 12, 5291-5300.	1.3	13
173	Plant Growth Nullifies the Effect of Increased Waterâ€Use Efficiency on Streamflow Under Elevated CO 2 in the Southeastern United States. Geophysical Research Letters, 2020, 47, e2019GL086940.	1.5	13
174	Sensitivities of Land Coverâ€“Precipitation Feedback to Convective Triggering. Journal of Hydrometeorology, 2017, 18, 2265-2283.	0.7	12
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