Kevin M Schaefer

List of Publications by Year
in descending order

72 papers	9,058 citations	76326 40 h-index	79698 73 g-index
78 all docs	78 docs citations	78 times ranked	10965 citing authors

#	Article	IF	Citations
1	Climate change and the permafrost carbon feedback. Nature, 2015, 520, 171-179.	27.8	2,369
2	Terrestrial biosphere models need better representation of vegetation phenology: results from the <scp>N</scp>orth <scp>A</scp>merican <scp>C</scp>arbon <scp>P</scp>rogram <scp>S</scp>ite <scp>S</scp>ynthesis. Global Change Biology, 2012, 18, 566-584.	9.5	583
3	Global patterns of drought recovery. Nature, 2017, 548, 202-205.	27.8	560
4	Amount and timing of permafrost carbon release in response to climate warming. Tellus, Series B: Chemical and Physical Meteorology, 2011, 63, 165-180.	1.6	344
5	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
6	The impact of the permafrost carbon feedback on global climate. Environmental Research Letters, 2014, 9, 085003.	5.2	279
7	A modelâ€data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2012, 117, .	3.3	274
8	A modelâ€data intercomparison of CO₂ exchange across North America: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2010, 115, .	3.3	247
9	Permafrost Stores a Globally Significant Amount of Mercury. Geophysical Research Letters, 2018, 45, 1463-1471.	4.0	245
10	Terrestrial biosphere model performance for interâ€annual variability of landâ€atmosphere <scp><scp>CO₂</scp></scp> exchange. Global Change Biology, 2012, 18, 1971-1987.	9.5	232
11	Large loss of CO2 in winter observed across the northern permafrost region. Nature Climate Change, 2019, 9, 852-857.	18.8	225
12	Seven years of recent European net terrestrial carbon dioxide exchange constrained by atmospheric observations. Global Change Biology, 2010, 16, 1317-1337.	9.5	223
13	The North American Carbon Program Multi-Scale Synthesis and Terrestrial Model Intercomparison Project â€" Part 1: Overview and experimental design. Geoscientific Model Development, 2013, 6, 2121-2133.	3.6	212
14	The North American Carbon Program Multi-scale Synthesis and Terrestrial Model Intercomparison Project â€" Part 2: Environmental driver data. Geoscientific Model Development, 2014, 7, 2875-2893.	3.6	207
15	Enhanced peak growth of global vegetation and its key mechanisms. Nature Ecology and Evolution, 2018, 2, 1897-1905.	7.8	169
16	Uncertainty in the response of terrestrial carbon sink to environmental drivers undermines carbon-climate feedback predictions. Scientific Reports, 2017, 7, 4765.	3.3	156
17	Incorporation of crop phenology in Simple Biosphere Model (SiBcrop) to improve land-atmosphere carbon exchanges from croplands. Biogeosciences, 2009, 6, 969-986.	3.3	144
18	Combined Simple Biosphere/Carnegieâ€Amesâ€Stanford Approach terrestrial carbon cycle model. Journal of Geophysical Research, 2008, 113, .	3.3	138

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19	Disentangling climatic and anthropogenic controls on global terrestrial evapotranspiration trends. Environmental Research Letters, 2015, 10, 094008.	5.2	119
20	Climate policy implications of nonlinear decline of Arctic land permafrost and other cryosphere elements. Nature Communications, 2019, 10, 1900.	12.8	108
21	Estimating 1992â€"2000 average active layer thickness on the Alaskan North Slope from remotely sensed surface subsidence. Journal of Geophysical Research, 2012, 117, .	3.3	106
22	Mechanisms of water supply and vegetation demand govern the seasonality and magnitude of evapotranspiration in Amazonia and Cerrado. Agricultural and Forest Meteorology, 2014, 191, 33-50.	4.8	105
23	Carbon cycle uncertainty in the Alaskan Arctic. Biogeosciences, 2014, 11, 4271-4288.	3.3	92
24	Potential impacts of mercury released from thawing permafrost. Nature Communications, 2020, 11, 4650.	12.8	77
25	Evaluation of continental carbon cycle simulations with North American flux tower observations. Ecological Monographs, 2013, 83, 531-556.	5.4	75
26	InSAR detects increase in surface subsidence caused by an Arctic tundra fire. Geophysical Research Letters, 2014, 41, 3906-3913.	4.0	64
27	Inference of the impact of wildfire on permafrost and active layer thickness in a discontinuous permafrost region using the remotely sensed active layer thickness (ReSALT) algorithm. Environmental Research Letters, 2019, 14, 035007.	5.2	64
28	Missing pieces to modeling the Arctic-Boreal puzzle. Environmental Research Letters, 2018, 13, 020202.	5.2	61
29	Improving simulated soil temperatures and soil freeze/thaw at highâ€latitude regions in the Simple Biosphere/Carnegieâ€Amesâ€Stanford Approach model. Journal of Geophysical Research, 2009, 114, .	3.3	59
30	Remotely Sensed Active Layer Thickness (ReSALT) at Barrow, Alaska Using Interferometric Synthetic Aperture Radar. Remote Sensing, 2015, 7, 3735-3759.	4.0	59
31	Global monthly averaged CO₂ fluxes recovered using a geostatistical inverse modeling approach: 2. Results including auxiliary environmental data. Journal of Geophysical Research, 2008, 113, .	3.3	57
32	Overview of the Large-Scale Biosphereâ€"Atmosphere Experiment in Amazonia Data Model Intercomparison Project (LBA-DMIP). Agricultural and Forest Meteorology, 2013, 182-183, 111-127.	4.8	55
33	Economic impacts of carbon dioxide and methane released from thawing permafrost. Nature Climate Change, 2016, 6, 56-59.	18.8	53
34	Effect of climate on interannual variability of terrestrial CO2fluxes. Global Biogeochemical Cycles, 2002, 16, 49-1-49-12.	4.9	51
35	Active layer freeze-thaw and water storage dynamics in permafrost environments inferred from InSAR. Remote Sensing of Environment, 2020, 248, 112007.	11.0	51
36	Impact of hydrological variations on modeling of peatland CO₂ fluxes: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2012, 117, .	3.3	50

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37	Toward â€œoptimalâ€• integration of terrestrial biosphere models. Geophysical Research Letters, 2015, 42, 4418-4428.	4.0	48
38	Biosphere model simulations of interannual variability in terrestrial ¹³C/¹²C exchange. Global Biogeochemical Cycles, 2013, 27, 637-649.	4.9	46
39	Beyond ecosystem modeling: A roadmap to community cyberinfrastructure for ecological dataâ€•model integration. Global Change Biology, 2021, 27, 13-26.	9.5	44
40	Emergent climate and <scp>CO</scp>₂ sensitivities of net primary productivity in ecosystem models do not agree with empirical data in temperate forests of eastern North America. Global Change Biology, 2017, 23, 2755-2767.	9.5	43
41	Land carbon models underestimate the severity and duration of droughtâ€™s impact on plant productivity. Scientific Reports, 2019, 9, 2758.	3.3	42
42	Vegetation Functional Properties Determine Uncertainty of Simulated Ecosystem Productivity: A Traceability Analysis in the East Asian Monsoon Region. Global Biogeochemical Cycles, 2019, 33, 668-689.	4.9	38
43	Terrestrial cycling of ¹³CO₂ by photosynthesis, respiration, and biomass burning in SiBCASA. Biogeosciences, 2014, 11, 6553-6571.	3.3	37
44	Active layer thickness as a function of soil water content. Environmental Research Letters, 2021, 16, 055028.	5.2	35
45	The winter Arctic Oscillation, the timing of spring, and carbon fluxes in the Northern Hemisphere. Global Biogeochemical Cycles, 2005, 19, .	4.9	33
46	Decadal trends in the seasonal-cycle amplitude of terrestrial CO₂ exchange resulting from the ensemble of terrestrial biosphere models. Tellus, Series B: Chemical and Physical Meteorology, 2022, 68, 28968.	1.6	31
47	Inter-annual variability of carbon and water fluxes in Amazonian forest, Cerrado and pasture sites, as simulated by terrestrial biosphere models. Agricultural and Forest Meteorology, 2013, 182-183, 145-155.	4.8	30
48	Evaluating the agreement between measurements and models of net ecosystem exchange at different times and timescales using wavelet coherence: an example using data from the North American Carbon Program Site-Level Interim Synthesis. Biogeosciences, 2013, 10, 6893-6909.	3.3	30
49	The importance of a surface organic layer in simulating permafrost thermal and carbon dynamics. Cryosphere, 2016, 10, 465-475.	3.9	29
50	A parameterization of respiration in frozen soils based on substrate availability. Biogeosciences, 2016, 13, 1991-2001.	3.3	29
51	GPS Interferometric Reflectometry Reveals Cyclic Elevation Changes in Thaw and Freezing Seasons in a Permafrost Area (Barrow, Alaska). Geophysical Research Letters, 2018, 45, 5581-5589.	4.0	27
52	On the Ability of Spaceâ€Based Passive and Active Remote Sensing Observations of CO₂ to Detect Flux Perturbations to the Carbon Cycle. Journal of Geophysical Research D: Atmospheres, 2018, 123, 1460-1477.	3.3	25
53	Carbon and energy fluxes in cropland ecosystems: a model-data comparison. Biogeochemistry, 2016, 129, 53-76.	3.5	24
54	Forests dominate the interannual variability of the North American carbon sink. Environmental Research Letters, 2018, 13, 084015.	5.2	23

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55	The winter Arctic Oscillation and the timing of snowmelt in Europe. Geophysical Research Letters, 2004, 31, .	4.0	21
56	Representing Grasslands Using Dynamic Prognostic Phenology Based on Biological Growth Stages: 1. Implementation in the Simple Biosphere Model (SiB4). Journal of Advances in Modeling Earth Systems, 2019, 11, 4423-4439.	3.8	20
57	Evaluation of simulated soil carbon dynamics in Arctic-Boreal ecosystems. Environmental Research Letters, 2020, 15, 025005.	5.2	19
58	Active Layer Stratigraphy and Organic Layer Thickness at a Thermokarst Site in Arctic Alaska Identified Using Ground Penetrating Radar. Arctic, Antarctic, and Alpine Research, 2015, 47, 195-202.	1.1	18
59	A synthesis dataset of permafrost-affected soil thermal conditions for Alaska, USA. Earth System Science Data, 2018, 10, 2311-2328.	9.9	18
60	Global vegetation biomass production efficiency constrained by models and observations. Global Change Biology, 2020, 26, 1474-1484.	9.5	15
61	Ground-penetrating radar-derived measurements of active-layer thickness on the landscape scale with sparse calibration at Toolik and Happy Valley, Alaska. Geophysics, 2016, 81, H9-H19.	2.6	14
62	Estimating active layer thickness and volumetric water content from ground penetrating radar measurements in Barrow, Alaska. Geoscience Data Journal, 2017, 4, 72-79.	4.4	14
63	Divergence in land surface modeling: linking spread to structure. Environmental Research Communications, 2019, 1, 111004.	2.3	13
64	Temperature anomaly reemergence in seasonally frozen soils. Journal of Geophysical Research, 2007, 112, .	3.3	12
65	Permafrost Dynamics Observatoryâ€"Part I: Postprocessing and Calibration Methods of UAVSAR Lâ€Band InSAR Data for Seasonal Subsidence Estimation. Earth and Space Science, 2021, 8, e2020EA001630.	2.6	11
66	Detectability of CO₂ flux signals by a spaceâ€based lidar mission. Journal of Geophysical Research D: Atmospheres, 2015, 120, 1794-1807.	3.3	9
67	Validation of Permafrost Active Layer Estimates from Airborne SAR Observations. Remote Sensing, 2021, 13, 2876.	4.0	9
68	Accuracy, Efficiency, and Transferability of a Deep Learning Model for Mapping Retrogressive Thaw Slumps across the Canadian Arctic. Remote Sensing, 2022, 14, 2747.	4.0	9
69	The CarbonTracker Data Assimilation System for CO₂ and <i>Î´</i>¹³C (CTDAS-C13 v1.0): retrieving information onÂ landâ€"atmosphere exchange processes. Geoscientific Model Development, 2018, 11, 283-304.	3.6	6
70	Comparison of Surface Subsidence Measured by Airborne and Satellite InSAR Over Permafrost Areas Near Yellowknife Canada. Earth and Space Science, 2021, 8, e2020EA001631.	2.6	5
71	The Terrestrial Biosphere Model Farm. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	5
72	Ground-penetrating radar-derived measurements of active-layer thickness on the landscape scale with sparse calibration at Toolik and Happy Valley, Alaska. Geophysics, 2016, 81, H1-H11.	2.6	3