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List of Publications by Year
in descending order

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132 papers	9,949 citations	57631 44 h-index	38300 95 g-index
163 all docs	163 docs citations	163 times ranked	9963 citing authors

#	Article	IF	Citations
1	Separation of net ecosystem exchange into assimilation and respiration using a light response curve approach: critical issues and global evaluation. Global Change Biology, 2010, 16, 187-208.	4.2	752
2	The increasing importance of atmospheric demand for ecosystem water and carbon fluxes. Nature Climate Change, 2016, 6, 1023-1027.	8.1	734
3	Evaluation of remote sensing based terrestrial productivity from MODIS using regional tower eddy flux network observations. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1908-1925.	2.7	562
4	Deriving a light use efficiency model from eddy covariance flux data for predicting daily gross primary production across biomes. Agricultural and Forest Meteorology, 2007, 143, 189-207.	1.9	547
5	A data-driven analysis of energy balance closure across FLUXNET research sites: The role of landscape scale heterogeneity. Agricultural and Forest Meteorology, 2013, 171-172, 137-152.	1.9	424
6	Land management and land-cover change haveÂimpacts of similar magnitude on surfaceÂtemperature. Nature Climate Change, 2014, 4, 389-393.	8.1	404
7	A multi-site analysis of random error in tower-based measurements of carbon and energy fluxes. Agricultural and Forest Meteorology, 2006, 136, 1-18.	1.9	398
8	Improving land surface models with FLUXNET data. Biogeosciences, 2009, 6, 1341-1359.	1.3	308
9	Photoperiodic regulation of the seasonal pattern of photosynthetic capacity and the implications for carbon cycling. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8612-8617.	3.3	247
10	Estimating components of forest evapotranspiration: A footprint approach for scaling sap flux measurements. Agricultural and Forest Meteorology, 2008, 148, 1719-1732.	1.9	237
11	Separating the effects of climate and vegetation on evapotranspiration along a successional chronosequence in the southeastern US. Global Change Biology, 2006, 12, 2115-2135.	4.2	219
12	Carbon dioxide and water vapor exchange in a warm temperate grassland. Oecologia, 2004, 138, 259-274.	0.9	216
13	Separating the effects of albedo from ecoâ€physiological changes on surface temperature along a successional chronosequence in the southeastern United States. Geophysical Research Letters, 2007, 34, .	1.5	195
14	An evaluation of models for partitioning eddy covariance-measured net ecosystem exchange into photosynthesis and respiration. Agricultural and Forest Meteorology, 2006, 141, 2-18.	1.9	186
15	Reviews and syntheses: Turning the challenges of partitioning ecosystem evaporation and transpiration into opportunities. Biogeosciences, 2019, 16, 3747-3775.	1.3	150
16	Albedo estimates for land surface models and support for a new paradigm based on foliage nitrogen concentration. Global Change Biology, 2010, 16, 696-710.	4.2	144
17	Estimating the uncertainty in annual net ecosystem carbon exchange: spatial variation in turbulent fluxes and sampling errors in eddy-covariance measurements. Global Change Biology, 2006, 12, 883-896.	4.2	140
18	Productivity, Respiration, and Light-Response Parameters of World Grassland and Agroecosystems Derived From Flux-Tower Measurements. Rangeland Ecology and Management, 2010, 63, 16-39.	1.1	133

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19	Biosphere-atmosphere exchange of CO₂ in relation to climate: a cross-biome analysis across multiple time scales. Biogeosciences, 2009, 6, 2297-2312.	1.3	132
20	Variability in net ecosystem exchange from hourly to inter-annual time scales at adjacent pine and hardwood forests: a wavelet analysis. Tree Physiology, 2005, 25, 887-902.	1.4	129
21	Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. Agricultural and Forest Meteorology, 2021, 301-302, 108350.	1.9	125
22	Nocturnal evapotranspiration in eddy-covariance records from three co-located ecosystems in the Southeastern U.S.: Implications for annual fluxes. Agricultural and Forest Meteorology, 2009, 149, 1491-1504.	1.9	112
23	Thermal optimality of net ecosystem exchange of carbon dioxide and underlying mechanisms. New Phytologist, 2012, 194, 775-783.	3.5	111
24	Atmospheric dryness reduces photosynthesis along a large range of soil water deficits. Nature Communications, 2022, 13, 989.	5.8	100
25	Are ecosystem carbon inputs and outputs coupled at short time scales? A case study from adjacent pine and hardwood forests using impulse?response analysis. Plant, Cell and Environment, 2007, 30, 700-710.	2.8	89
26	Role of vegetation in determining carbon sequestration along ecological succession in the southeastern United States. Global Change Biology, 2008, 14, 1409-1427.	4.2	87
27	Linking flux network measurements to continental scale simulations: ecosystem carbon dioxide exchange capacity under nonâ€waterâ€stressed conditions. Global Change Biology, 2007, 13, 734-760.	4.2	81
28	Multiscale model intercomparisons of CO2 and H2 O exchange rates in a maturing southeastern US pine forest. Global Change Biology, 2006, 12, 1189-1207.	4.2	80
29	Artificial drainage and associated carbon fluxes (CO₂/CH₄) in a tundra ecosystem. Global Change Biology, 2009, 15, 2599-2614.	4.2	78
30	Causality and Persistence in Ecological Systems: A Nonparametric Spectral Granger Causality Approach. American Naturalist, 2012, 179, 524-535.	1.0	78
31	On the spectrum of soil moisture from hourly to interannual scales. Water Resources Research, 2007, 43, .	1.7	77
32	Investigating a Hierarchy of Eulerian Closure Models for Scalar Transfer Inside Forested Canopies. Boundary-Layer Meteorology, 2008, 128, 1-32.	1.2	72
33	Characterizing the performance of ecosystem models across time scales: A spectral analysis of the North American Carbon Program site-level synthesis. Journal of Geophysical Research, 2011, 116, .	3.3	72
34	Sensitivity of gross primary productivity to climatic drivers during the summer drought of 2018 in Europe. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190747.	1.8	71
35	The relationship between reference canopy conductance and simplified hydraulic architecture. Advances in Water Resources, 2009, 32, 809-819.	1.7	70
36	Characterizing the diurnal patterns of errors in the prediction of evapotranspiration by several landâ€surface models: An NACP analysis. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1458-1473.	1.3	69

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37	Interannual variability of ecosystem carbon exchange: From observation to prediction. Global Ecology and Biogeography, 2017, 26, 1225-1237.	2.7	68
38	On the difference in the net ecosystem exchange of <scp>CO</scp>₂ between deciduous and evergreen forests in the southeastern United States. Global Change Biology, 2015, 21, 827-842.	4.2	65
39	Climate controls over the net carbon uptake period and amplitude of net ecosystem production in temperate and boreal ecosystems. Agricultural and Forest Meteorology, 2017, 243, 9-18.	1.9	64
40	THE STRUCTURE OF TURBULENCE NEAR A TALL FOREST EDGE: THE BACKWARD-FACING STEP FLOW ANALOGY REVISITED. , 2008, 18, 1420-1435.		62
41	Maximum carbon uptake rate dominates the interannual variability of global net ecosystem exchange. Global Change Biology, 2019, 25, 3381-3394.	4.2	62
42	Hydrologic and atmospheric controls on initiation of convective precipitation events. Water Resources Research, 2007, 43, .	1.7	60
43	Fineâ€root respiration in a loblolly pine (Pinus taeda L.) forest exposed to elevated CO₂ and N fertilization. Plant, Cell and Environment, 2008, 31, 1663-1672.	2.8	60
44	Linking Meteorology, Turbulence, and Air Chemistry in the Amazon Rain Forest. Bulletin of the American Meteorological Society, 2016, 97, 2329-2342.	1.7	59
45	Opportunities and Trade-offs among BECCS and the Food, Water, Energy, Biodiversity, and Social Systems Nexus at Regional Scales. BioScience, 2018, 68, 100-111.	2.2	53
46	Downward transport of ozone rich air and implications for atmospheric chemistry in the Amazon rainforest. Atmospheric Environment, 2016, 124, 64-76.	1.9	48
47	Convective suppression before and during the United States Northern Great Plains flash drought of 2017. Hydrology and Earth System Sciences, 2018, 22, 4155-4163.	1.9	46
48	Different response of surface temperature and air temperature to deforestation in climate models. Earth System Dynamics, 2019, 10, 473-484.	2.7	46
49	Ecoâ€hydrological controls on summertime convective rainfall triggers. Global Change Biology, 2007, 13, 887-896.	4.2	44
50	Reforestation and surface cooling in temperate zones: Mechanisms and implications. Global Change Biology, 2020, 26, 3384-3401.	4.2	44
51	Redefinition and global estimation of basal ecosystem respiration rate. Global Biogeochemical Cycles, 2011, 25, n/a-n/a.	1.9	43
52	Seasonal bryophyte productivity in the subâ€Arctic: a comparison with vascular plants. Functional Ecology, 2012, 26, 365-378.	1.7	40
53	Controls on seasonal patterns of maximum ecosystem carbon uptake and canopy-scale photosynthetic light response: contributions from both temperature and photoperiod. Photosynthesis Research, 2014, 119, 49-64.	1.6	40
54	Connecting Landâ€“Atmosphere Interactions to Surface Heterogeneity in CHEESEHEAD19. Bulletin of the American Meteorological Society, 2021, 102, E421-E445.	1.7	40

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55	Temperature, Heat Flux, and Reflectance of Common Subarctic Mosses and Lichens under Field Conditions: Might Changes to Community Composition Impact Climate-Relevant Surface Fluxes?. Arctic, Antarctic, and Alpine Research, 2012, 44, 500-508.	0.4	39
56	Assessing Interactions Among Changing Climate, Management, and Disturbance in Forests: A Macrosystems Approach. BioScience, 2015, 65, 263-274.	2.2	38
57	Assessing self-organization of plant communitiesâ€"A thermodynamic approach. Ecological Modelling, 2009, 220, 784-790.	1.2	36
58	Herbivory and climate interact serially to control monoterpene emissions from pinyon pine forests. Ecology, 2014, 95, 1591-1603.	1.5	36
59	Modeling nighttime ecosystem respiration from measured CO2concentration and air temperature profiles using inverse methods. Journal of Geophysical Research, 2006, 111, .	3.3	34
60	Upscaling as ecological information transfer: a simple framework with application to Arctic ecosystem carbon exchange. Landscape Ecology, 2009, 24, 971-986.	1.9	34
61	Long term trend and interannual variability of land carbon uptakeâ€"the attribution and processes. Environmental Research Letters, 2017, 12, 014018.	2.2	34
62	Partitioning of Net Fluxes. , 2012, , 263-289.		33
63	Eddy Covariance Measurements of Methane Flux at a Tropical Peat Forest in Sarawak, Malaysian Borneo. Geophysical Research Letters, 2018, 45, 4390-4399.	1.5	32
64	Topographic controls on the leaf area index and plant functional type of a tundra ecosystem. Journal of Ecology, 2008, 96, 1238-1251.	1.9	31
65	Integrating continuous atmospheric boundary layer and tower-based flux measurements to advance understanding of land-atmosphere interactions. Agricultural and Forest Meteorology, 2021, 307, 108509.	1.9	31
66	Thermal adaptation of net ecosystem exchange. Biogeosciences, 2011, 8, 1453-1463.	1.3	30
67	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.	1.3	30
68	Sensitivity of stand transpiration to wind velocity in a mixed broadleaved deciduous forest. Agricultural and Forest Meteorology, 2014, 187, 62-71.	1.9	29
69	The surface-atmosphere exchange of carbon dioxide, water, and sensible heat across a dryland wheat-fallow rotation. Agriculture, Ecosystems and Environment, 2016, 232, 129-140.	2.5	29
70	The surface-atmosphere exchange of carbon dioxide in tropical rainforests: Sensitivity to environmental drivers and flux measurement methodology. Agricultural and Forest Meteorology, 2018, 263, 292-307.	1.9	29
71	Using Information Theory to Determine Optimum Pixel Size and Shape for Ecological Studies: Aggregating Land Surface Characteristics in Arctic Ecosystems. Ecosystems, 2009, 12, 574-589.	1.6	28
72	Robust observations of land-to-atmosphere feedbacks using the information flows of FLUXNET. Npj Climate and Atmospheric Science, 2019, 2, .	2.6	28

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73	The effects of elevated atmospheric CO2 and nitrogen amendments on subsurface CO2 production and concentration dynamics in a maturing pine forest. Biogeochemistry, 2009, 94, 271-287.	1.7	27
74	Processing arctic eddyâ€flux data using a simple carbonâ€exchange model embedded in the ensemble Kalman filter. Ecological Applications, 2010, 20, 1285-1301.	1.8	25
75	The greening of the Northern Great Plains and its biogeochemical precursors. Global Change Biology, 2020, 26, 5404-5413.	4.2	25
76	Applying Information Theory in the Geosciences to Quantify Process Uncertainty, Feedback, Scale. Eos, 2013, 94, 56-56.	0.1	24
77	Investigating the mechanisms responsible for the lack of surface energy balance closure in a central Amazonian tropical rainforest. Agricultural and Forest Meteorology, 2018, 255, 92-103.	1.9	24
78	Surface Moistening Trends in the Northern North American Great Plains Increase the Likelihood of Convective Initiation. Journal of Hydrometeorology, 2018, 19, 227-244.	0.7	23
79	Tornado seasonality in the southeastern United States. Weather and Climate Extremes, 2018, 20, 81-91.	1.6	23
80	Soil Biogenic Volatile Organic Compound Flux in a Mixed Hardwood Forest: Net Uptake at Warmer Temperatures and the Importance of Mycorrhizal Associations. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005479.	1.3	23
81	Uncovering the critical soil moisture thresholds of plant water stress for European ecosystems. Global Change Biology, 2022, 28, 2111-2123.	4.2	23
82	Energy, water, and carbon fluxes in a loblolly pine stand: Results from uniform and gappy canopy models with comparisons to eddy flux data. Journal of Geophysical Research, 2009, 114, .	3.3	22
83	Upscaling Tundra CO₂ Exchange from Chamber to Eddy Covariance Tower. Arctic, Antarctic, and Alpine Research, 2013, 45, 275-284.	0.4	22
84	Peak tornado activity is occurring earlier in the heart of â€œTornado Alleyâ€• Geophysical Research Letters, 2014, 41, 6259-6264.	1.5	22
85	Photosynthesis and productivity in heterogeneous arctic tundra: consequences for ecosystem function of mixing vegetation types at stand edges. Journal of Ecology, 2012, 100, 441-451.	1.9	21
86	Deforestation intensifies hot days. Nature Climate Change, 2018, 8, 366-368.	8.1	21
87	Systematic review on effects of bioenergy from edible versus inedible feedstocks on food security. Npj Science of Food, 2021, 5, 9.	2.5	21
88	Quantifying the periodicity of Heinrich and Dansgaardâ€“Oeschger events during Marine Oxygen Isotope Stage 3. Quaternary Research, 2013, 79, 413-423.	1.0	20
89	Environmental and biological controls on seasonal patterns of isoprene above a rain forest in central Amazonia. Agricultural and Forest Meteorology, 2018, 256-257, 391-406.	1.9	20
90	Temporal Scales of the Nocturnal Flow Within and Above a Forest Canopy in Amazonia. Boundary-Layer Meteorology, 2016, 161, 73-98.	1.2	18

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91	Preface: Impacts of extreme climate events and disturbances on carbon dynamics. Biogeosciences, 2016, 13, 3665-3675.	1.3	16
92	Reviews and syntheses: Ongoing and emerging opportunities to improve environmental science using observations from the Advanced Baseline Imager on the Geostationary Operational Environmental Satellites. Biogeosciences, 2021, 18, 4117-4141.	1.3	16
93	The Role of Vegetation on the Ecosystem Radiative Entropy Budget and Trends Along Ecological Succession. Entropy, 2014, 16, 3710-3731.	1.1	14
94	Multiâ€Sensor Approach for High Space and Time Resolution Land Surface Temperature. Earth and Space Science, 2021, 8, e2021EA001842.	1.1	14
95	Hotter droughts alter resource allocation to chemical defenses in piÃ±on pine. Oecologia, 2021, 197, 921-938.	0.9	14
96	An Evaluation of Semiempirical Models for Partitioning Photosynthetically Active Radiation Into Diffuse and Direct Beam Components. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 889-901.	1.3	13
97	Drought supersedes warming in determining volatile and tissue defenses of piÃ±on pine (Pinus edulis). Environmental Research Letters, 2019, 14, 065006.	2.2	13
98	The Diurnal Dynamics of Gross Primary Productivity Using Observations From the Advanced Baseline Imager on the Geostationary Operational Environmental Satelliteâ€R Series at an Oak Savanna Ecosystem. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	1.3	13
99	Recent Trends in the Near-Surface Climatology of the Northern North American Great Plains. Journal of Climate, 2020, 33, 461-475.	1.2	12
100	Signaling from below: rodents select for deeper fruiting truffles with stronger volatile emissions. Ecology, 2020, 101, e02964.	1.5	12
101	Reconciling carbonâ€cycle processes from ecosystem to global scales. Frontiers in Ecology and the Environment, 2021, 19, 57-65.	1.9	12
102	The impacts of mountain pine beetle disturbance on the energy balance of snow during the melt period. Hydrological Processes, 2016, 30, 588-602.	1.1	11
103	Fire and development influences on sagebrush community plant groups across a climate gradient in northern Nevada. Ecosphere, 2019, 10, e02990.	1.0	11
104	Retrieving Heterogeneous Surface Soil Moisture at 100 m Across the Globe via Fusion of Remote Sensing and Land Surface Parameters. Frontiers in Water, 2020, 2, .	1.0	11
105	The spatial variability of NDVI within a wheat field: Information content and implications for yield and grain protein monitoring. PLoS ONE, 2022, 17, e0265243.	1.1	11
106	A Comparison of Methods Reveals that Enhanced Diffusion Helps Explain Cold-Season Soil CO2 Efflux in a Lodgepole Pine Ecosystem. Cold Regions Science and Technology, 2016, 121, 16-24.	1.6	10
107	A Bornean peat swamp forest is a net source of carbon dioxide to the atmosphere. Global Change Biology, 2020, 26, 6931-6944.	4.2	10
108	Land management and climate change determine secondâ€generation bioenergy potential of the US Northern Great Plains. GCB Bioenergy, 2020, 12, 491-509.	2.5	10

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109	Actual evapotranspiration and crop coefficients for tropical lowland rice (Oryza sativa L.) in eastern India. Theoretical and Applied Climatology, 2021, 146, 155-171.	1.3	10
110	Toward a Social-Ecological Theory of Forest Macrosystems for Improved Ecosystem Management. Forests, 2018, 9, 200.	0.9	9
111	The exchange of water and energy between a tropical peat forest and the atmosphere: Seasonal trends and comparison against other tropical rainforests. Science of the Total Environment, 2019, 683, 166-174.	3.9	8
112	Quantifying energy use efficiency via entropy production: a case study from longleaf pine ecosystems. Biogeosciences, 2019, 16, 1845-1863.	1.3	8
113	Probabilistic Downscaling of Remote Sensing Data with Applications for Multi-Scale Biogeochemical Flux Modeling. PLoS ONE, 2015, 10, e0128935.	1.1	7
114	On the exchange of sensible and latent heat between the atmosphere and melting snow. Agricultural and Forest Meteorology, 2018, 252, 167-174.	1.9	7
115	Influences of nitrogen oxides and isoprene on ozone-temperature relationships in the Amazon rain forest. Atmospheric Environment, 2019, 206, 280-292.	1.9	7
116	Methane efflux from an American bison herd. Biogeosciences, 2021, 18, 961-975.	1.3	7
117	Is the grass always greener? Land surface phenology reveals differences in peak and seasonâ€long vegetation productivity responses to climate and management. Ecology and Evolution, 2021, 11, 11168-11199.	0.8	7
118	The Importance of Spring Mixing in Evaluating Carbon Dioxide and Methane Flux From a Small Northâ€Temperate Lake in Wisconsin, United States. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006537.	1.3	7
119	Multiple UAV Flights across the Growing Season Can Characterize Fine Scale Phenological Heterogeneity within and among Vegetation Functional Groups. Remote Sensing, 2022, 14, 1290.	1.8	7
120	Using Metabolic Energy Density Metrics to Understand Differences in Ecosystem Function During Drought. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005335.	1.3	6
121	Forest structure and composition drive differences in metabolic energy and entropy dynamics during temperature extremes in longleaf pine savannas. Agricultural and Forest Meteorology, 2021, 297, 108252.	1.9	6
122	Toward an urgent yet deliberate conservation strategy: sustaining social-ecological systems in rangelands of the Northern Great Plains, Montana. Ecology and Society, 2021, 26, .	1.0	6
123	Eco-hydrological controls on summertime convective rainfall triggers. Global Change Biology, 2007, .	4.2	6
124	Thermodynamic approaches to ecosystem behaviour: fundamental principles with case studies from forest succession and management. , 2010, , 40-64.		5
125	Preface: Towards a full greenhouse gas balance of the biosphere. Biogeosciences, 2015, 12, 453-456.	1.3	5
126	Itâ€™s the Heat and the Humidity: The Complementary Roles of Temperature and Specific Humidity to Recent Changes in the Energy Content of the Nearâ€Surface Atmosphere. Geophysical Research Letters, 2022, 49, .	1.5	5

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127	Growing season carbon dynamics differ in intermediate wheatgrass monoculture versus biculture with red clover. Agricultural and Forest Meteorology, 2022, 323, 109062.	1.9	5
128	Vapor pressure deficit helps explain biogenic volatile organic compound fluxes from the forest floor and canopy of a temperate deciduous forest. Oecologia, 2021, 197, 971-988.	0.9	4
129	Preface "Biotic interactions and biogeochemical processes in the soil environment". Biogeosciences, 2012, 9, 1823-1825.	1.3	2
130	Turbulent transport and reactions of plant-emitted hydrocarbons in an Amazonian rain forest. Atmospheric Environment, 2022, 279, 119094.	1.9	2
131	Preface: honoring the career of Russell K. Monson. Oecologia, 2021, 197, 817-822.	0.9	1
132	Linking flux network measurements to continental scale simulations: ecosystem carbon dioxide exchange capacity under non-water-stressed conditions. Global Change Biology, 2007, .	4.2	0