

Sean Burns

List of Publications by Year in descending order

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86
papers

7,362
citations

76326

40
h-index

54911

84
g-index

107
all docs

107
docs citations

107
times ranked

8033
citing authors

#	ARTICLE	IF	CITATIONS
1	The Community Land Model Version 5: Description of New Features, Benchmarking, and Impact of Forcing Uncertainty. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 4245-4287.	3.8	692
2	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. <i>Scientific Data</i> , 2020, 7, 225.	5.3	646
3	Evaluation of remote sensing based terrestrial productivity from MODIS using regional tower eddy flux network observations. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2006, 44, 1908-1925.	6.3	562
4	Winter forest soil respiration controlled by climate and microbial community composition. <i>Nature</i> , 2006, 439, 711-714.	27.8	468
5	CASES-99: A Comprehensive Investigation of the Stable Nocturnal Boundary Layer. <i>Bulletin of the American Meteorological Society</i> , 2002, 83, 555-581.	3.3	418
6	Longer growing seasons lead to less carbon sequestration by a subalpine forest. <i>Global Change Biology</i> , 2010, 16, 771-783.	9.5	286
7	Estimation of net ecosystem carbon exchange for the conterminous United States by combining MODIS and AmeriFlux data. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 1827-1847.	4.8	221
8	Mechanistic evidence for tracking the seasonality of photosynthesis with solar-induced fluorescence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 11640-11645.	7.1	219
9	Atmospheric Disturbances that Generate Intermittent Turbulence in Nocturnal Boundary Layers. <i>Boundary-Layer Meteorology</i> , 2004, 110, 255-279.	2.3	185
10	Climatic influences on net ecosystem CO ₂ exchange during the transition from wintertime carbon source to springtime carbon sink in a high-elevation, subalpine forest. <i>Oecologia</i> , 2005, 146, 130-147.	2.0	169
11	Intermittent Turbulence Associated with a Density Current Passage in the Stable Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2002, 105, 199-219.	2.3	159
12	Assessing net ecosystem carbon exchange of U.S. terrestrial ecosystems by integrating eddy covariance flux measurements and satellite observations. <i>Agricultural and Forest Meteorology</i> , 2011, 151, 60-69.	4.8	157
13	Shallow Drainage Flows. <i>Boundary-Layer Meteorology</i> , 2001, 101, 243-260.	2.3	148
14	Terrestrial carbon balance in a drier world: the effects of water availability in southwestern North America. <i>Global Change Biology</i> , 2016, 22, 1867-1879.	9.5	142
15	Ecohydrological controls on snowmelt partitioning in mixed-conifer subalpine forests. <i>Ecohydrology</i> , 2009, 2, 129-142.	2.4	137
16	Climate control of terrestrial carbon exchange across biomes and continents. <i>Environmental Research Letters</i> , 2010, 5, 034007.	5.2	137
17	Greenness indices from digital cameras predict the timing and seasonal dynamics of canopy-scale photosynthesis. <i>Ecological Applications</i> , 2015, 25, 99-115.	3.8	129
18	The Canopy Horizontal Array Turbulence Study. <i>Bulletin of the American Meteorological Society</i> , 2011, 92, 593-611.	3.3	109

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19	Turbulence statistics of a Kelvinâ€“Helmholtz billow event observed in the night-time boundary layer during the Cooperative Atmosphereâ€“Surface Exchange Study field program. <i>Dynamics of Atmospheres and Oceans</i> , 2001, 34, 189-204.	1.8	102
20	CO2 transport over complex terrain. <i>Agricultural and Forest Meteorology</i> , 2007, 145, 1-21.	4.8	93
21	Improved Wind Measurements on Research Aircraft. <i>Journal of Atmospheric and Oceanic Technology</i> , 1999, 16, 860-875.	1.3	87
22	The contribution of beneath-snow soil respiration to total ecosystem respiration in a high-elevation, subalpine forest. <i>Global Biogeochemical Cycles</i> , 2006, 20, n/a-n/a.	4.9	84
23	THE CONTRIBUTION OF ADVECTIVE FLUXES TO NET ECOSYSTEM EXCHANGE IN A HIGHâ€“ELEVATION, SUBALPINE FOREST. <i>Ecological Applications</i> , 2008, 18, 1379-1390.	3.8	81
24	Convergent approaches to determine an ecosystem's transpiration fraction. <i>Global Biogeochemical Cycles</i> , 2016, 30, 933-951.	4.9	75
25	Modeling and measuring the nocturnal drainage flow in a high-elevation, subalpine forest with complex terrain. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	74
26	Limitations to winter and spring photosynthesis of a Rocky Mountain subalpine forest. <i>Agricultural and Forest Meteorology</i> , 2018, 252, 241-255.	4.8	72
27	Extensive observations of CO2 carbon isotope content in and above a high-elevation subalpine forest. <i>Global Biogeochemical Cycles</i> , 2005, 19, .	4.9	69
28	A comparison of water and carbon dioxide exchange at a windy alpine tundra and subalpine forest site near Niwot Ridge, Colorado. <i>Biogeochemistry</i> , 2009, 95, 61-76.	3.5	65
29	An Evaluation of Bulk Ri-Based Surface Layer Flux Formulas for Stable and Very Stable Conditions with Intermittent Turbulence. <i>Journals of the Atmospheric Sciences</i> , 2003, 60, 2523-2537.	1.7	61
30	Modeling wholeâ€“tree carbon assimilation rate using observed transpiration rates and needle sugar carbon isotope ratios. <i>New Phytologist</i> , 2010, 185, 1000-1015.	7.3	58
31	Biological and physical influences on the carbon isotope content of CO2 in a subalpine forest snowpack, Niwot Ridge, Colorado. <i>Biogeochemistry</i> , 2009, 95, 37-59.	3.5	57
32	Airflows and turbulent flux measurements in mountainous terrain. <i>Agricultural and Forest Meteorology</i> , 2004, 125, 187-205.	4.8	54
33	The relative contributions of alpine and subalpine ecosystems to the water balance of a mountainous, headwater catchment. <i>Hydrological Processes</i> , 2015, 29, 4794-4808.	2.6	51
34	Heat Balance in the Nocturnal Boundary Layer during CASES-99. <i>Journal of Applied Meteorology and Climatology</i> , 2003, 42, 1649-1666.	1.7	49
35	Tree species effects on ecosystem water-use efficiency in a high-elevation, subalpine forest. <i>Oecologia</i> , 2010, 162, 491-504.	2.0	49
36	Measuring sea surface mean square slope with a 36-GHz scanning radar altimeter. <i>Journal of Geophysical Research</i> , 1998, 103, 12587-12601.	3.3	48

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37	Earlier snowmelt reduces atmospheric carbon uptake in midlatitude subalpine forests. <i>Geophysical Research Letters</i> , 2016, 43, 8160-8168.	4.0	48
38	Using sonic anemometer temperature to measure sensible heat flux in strong winds. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 2095-2111.	3.1	47
39	Fluxes of energy, water, and carbon dioxide from mountain ecosystems at Niwot Ridge, Colorado. <i>Plant Ecology and Diversity</i> , 2015, 8, 663-676.	2.4	47
40	Canopy structure and atmospheric flows in relation to the $\delta^{13}\text{C}$ of respired CO_2 in a subalpine coniferous forest. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 592-605.	4.8	41
41	Atmospheric Stability Effects on Wind Fields and Scalar Mixing Within and Just Above a Subalpine Forest in Sloping Terrain. <i>Boundary-Layer Meteorology</i> , 2011, 138, 231-262.	2.3	41
42	Controls over ozone deposition to a high elevation subalpine forest. <i>Agricultural and Forest Meteorology</i> , 2009, 149, 1447-1459.	4.8	40
43	The influence of warm-season precipitation on the diel cycle of the surface energy balance and carbon dioxide at a Colorado subalpine forest site. <i>Biogeosciences</i> , 2015, 12, 7349-7377.	3.3	39
44	Snow Temperature Changes within a Seasonal Snowpack and Their Relationship to Turbulent Fluxes of Sensible and Latent Heat. <i>Journal of Hydrometeorology</i> , 2014, 15, 117-142.	1.9	38
45	Partitioning net ecosystem carbon exchange and the carbon isotopic disequilibrium in a subalpine forest. <i>Global Change Biology</i> , 2008, 14, 1785-1800.	9.5	35
46	Seasonal pattern of regional carbon balance in the central Rocky Mountains from surface and airborne measurements. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	33
47	Soil, plant, and transport influences on methane in a subalpine forest under high ultraviolet irradiance. <i>Biogeosciences</i> , 2009, 6, 1311-1324.	3.3	32
48	Sustained Nonphotochemical Quenching Shapes the Seasonal Pattern of Solar-Induced Fluorescence at a High-Elevation Evergreen Forest. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 2005-2020.	3.0	32
49	Temporal Dynamics of Aerodynamic Canopy Height Derived From Eddy Covariance Momentum Flux Data Across North American Flux Networks. <i>Geophysical Research Letters</i> , 2018, 45, 9275-9287.	4.0	31
50	Integrating continuous atmospheric boundary layer and tower-based flux measurements to advance understanding of land-atmosphere interactions. <i>Agricultural and Forest Meteorology</i> , 2021, 307, 108509.	4.8	31
51	A Multiscale and Multidisciplinary Investigation Of Ecosystem's Atmosphere CO_2 Exchange Over the Rocky Mountains of Colorado. <i>Bulletin of the American Meteorological Society</i> , 2010, 91, 209-230.	3.3	29
52	Ecological processes dominate the $\delta^{13}\text{C}$ land disequilibrium in a Rocky Mountain subalpine forest. <i>Global Biogeochemical Cycles</i> , 2014, 28, 352-370.	4.9	27
53	Wide discrepancies in the magnitude and direction of modeled solar-induced chlorophyll fluorescence in response to light conditions. <i>Biogeosciences</i> , 2020, 17, 3733-3755.	3.3	24
54	Coupling of internal waves on the main thermocline to the diurnal surface layer and sea surface temperature during the Tropical Ocean-Global Atmosphere Coupled Ocean-Atmosphere Response Experiment. <i>Journal of Geophysical Research</i> , 1998, 103, 12613-12628.	3.3	23

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55	Partitioning net ecosystem exchange of CO ₂ : A comparison of a Bayesian/isotope approach to environmental regression methods. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	22
56	Climate controls over ecosystem metabolism: insights from a fifteen-year inductive artificial neural network synthesis for a subalpine forest. <i>Oecologia</i> , 2017, 184, 25-41.	2.0	22
57	Montane forest productivity across a semiarid climatic gradient. <i>Global Change Biology</i> , 2020, 26, 6945-6958.	9.5	22
58	A nonparametric method for separating photosynthesis and respiration components in CO ₂ flux measurements. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	21
59	The Impact of Biomass Heat Storage on the Canopy Energy Balance and Atmospheric Stability in the Community Land Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 83-98.	3.8	21
60	Hillslope Hydrology Influences the Spatial and Temporal Patterns of Remotely Sensed Ecosystem Productivity. <i>Water Resources Research</i> , 2020, 56, e2020WR027630.	4.2	21
61	Assessing filtering of mountaintop CO ₂ mole fractions for application to inverse models of biosphere-atmosphere carbon exchange. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 2099-2115.	4.9	20
62	Decomposing reflectance spectra to track gross primary production in a subalpine evergreen forest. <i>Biogeosciences</i> , 2020, 17, 4523-4544.	3.3	20
63	A Comparison of the Diel Cycle of Modeled and Measured Latent Heat Flux During the Warm Season in a Colorado Subalpine Forest. <i>Journal of Advances in Modeling Earth Systems</i> , 2018, 10, 617-651.	3.8	19
64	Optimization of an enclosed gas analyzer sampling system for measuring eddy covariance fluxes of H ₂ O and CO ₂ . <i>Atmospheric Measurement Techniques</i> , 2016, 9, 1341-1359.	3.1	18
65	Gross primary production (GPP) and red solar induced fluorescence (SIF) respond differently to light and seasonal environmental conditions in a subalpine conifer forest. <i>Agricultural and Forest Meteorology</i> , 2022, 317, 108904.	4.8	18
66	Measurement of Directional Wave Spectra Using Aircraft Laser Altimeters. <i>Journal of Atmospheric and Oceanic Technology</i> , 2005, 22, 869-885.	1.3	17
67	An interannual assessment of the relationship between the stable carbon isotopic composition of ecosystem respiration and climate in a high-elevation subalpine forest. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	17
68	Comparisons of aircraft, ship, and buoy radiation and SST measurements from TOGA COARE. <i>Journal of Geophysical Research</i> , 2000, 105, 15627-15652.	3.3	16
69	A Field Intercomparison Technique to Improve the Relative Accuracy of Longwave Radiation Measurements and an Evaluation of CASES-99 Pyrometer Data Quality. <i>Journal of Atmospheric and Oceanic Technology</i> , 2003, 20, 348-361.	1.3	16
70	Measuring spatiotemporal variation in snow optical grain size under a subalpine forest canopy using contact spectroscopy. <i>Water Resources Research</i> , 2016, 52, 7513-7522.	4.2	16
71	Estimating Soil Respiration in a Subalpine Landscape Using Point, Terrain, Climate, and Greenness Data. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 3231-3249.	3.0	15
72	Seasonality in aerodynamic resistance across a range of North American ecosystems. <i>Agricultural and Forest Meteorology</i> , 2021, 310, 108613.	4.8	14

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73	Assessing the interplay between canopy energy balance and photosynthesis with cellulose $\delta^{18}\text{O}$: large-scale patterns and independent ground-truthing. <i>Oecologia</i> , 2018, 187, 995-1007.	2.0	13
74	Comparisons of aircraft, ship, and buoy meteorological measurements from TOGA COARE. <i>Journal of Geophysical Research</i> , 1999, 104, 30853-30883.	3.3	12
75	The Niwot Ridge Subalpine Forest US-NR1 AmeriFlux site â€” Part 1: Data acquisition and site record-keeping. <i>Geoscientific Instrumentation, Methods and Data Systems</i> , 2016, 5, 451-471.	1.6	12
76	Forecasting net ecosystem CO_2 exchange in a subalpine forest using model data assimilation combined with simulated climate and weather generation. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 549-565.	3.0	11
77	The effect of static pressure-wind covariance on vertical carbon dioxide exchange at a windy subalpine forest site. <i>Agricultural and Forest Meteorology</i> , 2021, 306, 108402.	4.8	10
78	An Evaluation of Calibration Techniques for In Situ Carbon Dioxide Measurements Using a Programmable Portable Trace-Gas Measuring System. <i>Journal of Atmospheric and Oceanic Technology</i> , 2009, 26, 291-316.	1.3	8
79	A Cable-Borne Tram for Atmospheric Measurements along Transects. <i>Journal of Atmospheric and Oceanic Technology</i> , 2009, 26, 462-473.	1.3	8
80	Implementation and Evaluation of a Unified Turbulence Parameterization Throughout the Canopy and Roughness Sublayer in Noahâ€”MP Snow Simulations. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, .	3.8	8
81	Observations of sea surface mean square slope under light wind during the Tropical Ocean-Global Atmosphere Coupled Ocean-Atmosphere Response Experiment. <i>Journal of Geophysical Research</i> , 1998, 103, 12603-12612.	3.3	6
82	Resolving temperature limitation on spring productivity in an evergreen conifer forest using a modelâ€”data fusion framework. <i>Biogeosciences</i> , 2022, 19, 541-558.	3.3	6
83	Challenges and Capabilities in Estimating Snow Mass Intercepted in Conifer Canopies With Tree Sway Monitoring. <i>Water Resources Research</i> , 2022, 58, .	4.2	6
84	Revisiting the Surface Energy Imbalance. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034219.	3.3	4
85	Corrigendum to “Soil, plant, and transport influences on methane in a subalpine forest under high ultraviolet irradiance” published in <i>Biogeosciences</i> , 6, 1311â€”1324, 2009. <i>Biogeosciences</i> , 2011, 8, 851-851.	3.3	3
86	Coupling of Tree Growth and Photosynthetic Carbon Uptake Across Six North American Forests. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2022, 127, .	3.0	3