Sean Burns

List of Publications by Year
in descending order

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	Resolving temperature limitation on spring productivity in an evergreen conifer forest using a modelâ€“data fusion framework. Biogeosciences, 2022, 19, 541-558.	3.3	6
2	Challenges and Capabilities in Estimating Snow Mass Intercepted in Conifer Canopies With Tree Sway Monitoring. Water Resources Research, 2022, 58, .	4.2	6
3	Gross primary production (GPP) and red solar induced fluorescence (SIF) respond differently to light and seasonal environmental conditions in a subalpine conifer forest. Agricultural and Forest Meteorology, 2022, 317, 108904.	4.8	18
4	Coupling of Tree Growth and Photosynthetic Carbon Uptake Across Six North American Forests. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	3
5	Revisiting the Surface Energy Imbalance. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034219.	3.3	4
6	The effect of static pressure-wind covariance on vertical carbon dioxide exchange at a windy subalpine forest site. Agricultural and Forest Meteorology, 2021, 306, 108402.	4.8	10
7	Integrating continuous atmospheric boundary layer and tower-based flux measurements to advance understanding of land-atmosphere interactions. Agricultural and Forest Meteorology, 2021, 307, 108509.	4.8	31
8	Seasonality in aerodynamic resistance across a range of North American ecosystems. Agricultural and Forest Meteorology, 2021, 310, 108613.	4.8	14
9	Implementation and Evaluation of a Unified Turbulence Parameterization Throughout the Canopy and Roughness Sublayer in Noahâ€MP Snow Simulations. Journal of Advances in Modeling Earth Systems, 2021, 13, .	3.8	8
10	Wide discrepancies in the magnitude and direction of modeled solar-induced chlorophyll fluorescence in response to light conditions. Biogeosciences, 2020, 17, 3733-3755.	3.3	24
11	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. Scientific Data, 2020, 7, 225.	5.3	646
12	Montane forest productivity across a semiarid climatic gradient. Global Change Biology, 2020, 26, 6945-6958.	9.5	22
13	Hillslope Hydrology Influences the Spatial and Temporal Patterns of Remotely Sensed Ecosystem Productivity. Water Resources Research, 2020, 56, e2020WR027630.	4.2	21
14	Decomposing reflectance spectra to track gross primary production in a subalpine evergreen forest. Biogeosciences, 2020, 17, 4523-4544.	3.3	20
15	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.	3.8	692
16	Sustained Nonphotochemical Quenching Shapes the Seasonal Pattern of Solarâ€Induced Fluorescence at a Highâ€Elevation Evergreen Forest. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2005-2020.	3.0	32
17	Mechanistic evidence for tracking the seasonality of photosynthesis with solar-induced fluorescence. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11640-11645.	7.1	219
18	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.	3.8	21

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19	Limitations to winter and spring photosynthesis of a Rocky Mountain subalpine forest. Agricultural and Forest Meteorology, 2018, 252, 241-255.	4.8	72
20	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.	3.8	19
21	Estimating Soil Respiration in a Subalpine Landscape Using Point, Terrain, Climate, and Greenness Data. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 3231-3249.	3.0	15
22	Assessing the interplay between canopy energy balance and photosynthesis with cellulose Î´18O: large-scale patterns and independent ground-truthing. Oecologia, 2018, 187, 995-1007.	2.0	13
23	Temporal Dynamics of Aerodynamic Canopy Height Derived From Eddy Covariance Momentum Flux Data Across North American Flux Networks. Geophysical Research Letters, 2018, 45, 9275-9287.	4.0	31
24	Climate controls over ecosystem metabolism: insights from a fifteen-year inductive artificial neural network synthesis for a subalpine forest. Oecologia, 2017, 184, 25-41.	2.0	22
25	Optimization of anÂenclosed gas analyzer sampling system for measuring eddy covariance fluxes of H₂O and CO₂. Atmospheric Measurement Techniques, 2016, 9, 1341-1359.	3.1	18
26	The Niwot Ridge Subalpine Forest US-NR1 AmeriFlux site â€“ PartÂ1: Data acquisition and site record-keeping. Geoscientific Instrumentation, Methods and Data Systems, 2016, 5, 451-471.	1.6	12
27	Terrestrial carbon balance in a drier world: the effects of water availability in southwestern North America. Global Change Biology, 2016, 22, 1867-1879.	9.5	142
28	Earlier snowmelt reduces atmospheric carbon uptake in midlatitude subalpine forests. Geophysical Research Letters, 2016, 43, 8160-8168.	4.0	48
29	Convergent approaches to determine an ecosystem's transpiration fraction. Global Biogeochemical Cycles, 2016, 30, 933-951.	4.9	75
30	Measuring spatiotemporal variation in snow optical grain size under a subalpine forest canopy using contact spectroscopy. Water Resources Research, 2016, 52, 7513-7522.	4.2	16
31	The relative contributions of alpine and subalpine ecosystems to the water balance of a mountainous, headwater catchment. Hydrological Processes, 2015, 29, 4794-4808.	2.6	51
32	The influence of warm-season precipitation on the diel cycle of the surface energy balance and carbon dioxide at a Colorado subalpine forest site. Biogeosciences, 2015, 12, 7349-7377.	3.3	39
33	Greenness indices from digital cameras predict the timing and seasonal dynamics of canopyâ€scale photosynthesis. Ecological Applications, 2015, 25, 99-115.	3.8	129
34	Fluxes of energy, water, and carbon dioxide from mountain ecosystems at Niwot Ridge, Colorado. Plant Ecology and Diversity, 2015, 8, 663-676.	2.4	47
35	Snow Temperature Changes within a Seasonal Snowpack and Their Relationship to Turbulent Fluxes of Sensible and Latent Heat. Journal of Hydrometeorology, 2014, 15, 117-142.	1.9	38
36	Ecological processes dominate the ¹³C land disequilibrium in a Rocky Mountain subalpine forest. Global Biogeochemical Cycles, 2014, 28, 352-370.	4.9	27

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37	Forecasting net ecosystem CO₂ exchange in a subalpine forest using model data assimilation combined with simulated climate and weather generation. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 549-565.	3.0	11
38	Using sonic anemometer temperature to measure sensible heat flux in strong winds. Atmospheric Measurement Techniques, 2012, 5, 2095-2111.	3.1	47
39	Assessing filtering of mountaintop CO₂ mole fractions for application to inverse models of biosphere-atmosphere carbon exchange. Atmospheric Chemistry and Physics, 2012, 12, 2099-2115.	4.9	20
40	An interannual assessment of the relationship between the stable carbon isotopic composition of ecosystem respiration and climate in a high-elevation subalpine forest. Journal of Geophysical Research, 2011, 116, .	3.3	17
41	Seasonal pattern of regional carbon balance in the central Rocky Mountains from surface and airborne measurements. Journal of Geophysical Research, 2011, 116, .	3.3	33
42	Assessing net ecosystem carbon exchange of U.S. terrestrial ecosystems by integrating eddy covariance flux measurements and satellite observations. Agricultural and Forest Meteorology, 2011, 151, 60-69.	4.8	157
43	Corrigendum to "Soil, plant, and transport influences on methane in a subalpine forest under high ultraviolet irradiance" published in Biogeosciences, 6, 1311â€“1324, 2009. Biogeosciences, 2011, 8, 851-851.	3.3	3
44	Atmospheric Stability Effects on Wind Fields and Scalar Mixing Within and Just Above a Subalpine Forest in Sloping Terrain. Boundary-Layer Meteorology, 2011, 138, 231-262.	2.3	41
45	The Canopy Horizontal Array Turbulence Study. Bulletin of the American Meteorological Society, 2011, 92, 593-611.	3.3	109
46	Tree species effects on ecosystem water-use efficiency in a high-elevation, subalpine forest. Oecologia, 2010, 162, 491-504.	2.0	49
47	Modeling wholeâ€tree carbon assimilation rate using observed transpiration rates and needle sugar carbon isotope ratios. New Phytologist, 2010, 185, 1000-1015.	7.3	58
48	Longer growing seasons lead to less carbon sequestration by a subalpine forest. Global Change Biology, 2010, 16, 771-783.	9.5	286
49	Climate control of terrestrial carbon exchange across biomes and continents. Environmental Research Letters, 2010, 5, 034007.	5.2	137
50	A Multiscale and Multidisciplinary Investigation Of Ecosystemâ€“Atmosphere CO2 Exchange Over the Rocky Mountains of Colorado. Bulletin of the American Meteorological Society, 2010, 91, 209-230.	3.3	29
51	Soil, plant, and transport influences on methane in a subalpine forest under high ultraviolet irradiance. Biogeosciences, 2009, 6, 1311-1324.	3.3	32
52	An Evaluation of Calibration Techniques for In Situ Carbon Dioxide Measurements Using a Programmable Portable Trace-Gas Measuring System. Journal of Atmospheric and Oceanic Technology, 2009, 26, 291-316.	1.3	8
53	A Cable-Borne Tram for Atmospheric Measurements along Transects. Journal of Atmospheric and Oceanic Technology, 2009, 26, 462-473.	1.3	8
54	Ecohydrological controls on snowmelt partitioning in mixedâ€conifer subâ€alpine forests. Ecohydrology, 2009, 2, 129-142.	2.4	137

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55	Biological and physical influences on the carbon isotope content of CO2 in a subalpine forest snowpack, Niwot Ridge, Colorado. Biogeochemistry, 2009, 95, 37-59.	3.5	57
56	A comparison of water and carbon dioxide exchange at a windy alpine tundra and subalpine forest site near Niwot Ridge, Colorado. Biogeochemistry, 2009, 95, 61-76.	3.5	65
57	Controls over ozone deposition to a high elevation subalpine forest. Agricultural and Forest Meteorology, 2009, 149, 1447-1459.	4.8	40
58	Partitioning net ecosystem carbon exchange and the carbon isotopic disequilibrium in a subalpine forest. Global Change Biology, 2008, 14, 1785-1800.	9.5	35
59	Canopy structure and atmospheric flows in relation to the Î´13C of respired CO2 in a subalpine coniferous forest. Agricultural and Forest Meteorology, 2008, 148, 592-605.	4.8	41
60	Estimation of net ecosystem carbon exchange for the conterminous United States by combining MODIS and AmeriFlux data. Agricultural and Forest Meteorology, 2008, 148, 1827-1847.	4.8	221
61	THE CONTRIBUTION OF ADVECTIVE FLUXES TO NET ECOSYSTEM EXCHANGE IN A HIGHâ€ELEVATION, SUBALPINE FOREST. Ecological Applications, 2008, 18, 1379-1390.	3.8	81
62	CO2 transport over complex terrain. Agricultural and Forest Meteorology, 2007, 145, 1-21.	4.8	93
63	Partitioning net ecosystem exchange of CO₂: A comparison of a Bayesian/isotope approach to environmental regression methods. Journal of Geophysical Research, 2007, 112, .	3.3	22
64	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.	6.3	562
65	The contribution of beneath-snow soil respiration to total ecosystem respiration in a high-elevation, subalpine forest. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	4.9	84
66	Winter forest soil respiration controlled by climate and microbial community composition. Nature, 2006, 439, 711-714.	27.8	468
67	Climatic influences on net ecosystem CO2 exchange during the transition from wintertime carbon source to springtime carbon sink in a high-elevation, subalpine forest. Oecologia, 2005, 146, 130-147.	2.0	169
68	Measurement of Directional Wave Spectra Using Aircraft Laser Altimeters. Journal of Atmospheric and Oceanic Technology, 2005, 22, 869-885.	1.3	17
69	Extensive observations of CO2carbon isotope content in and above a high-elevation subalpine forest. Global Biogeochemical Cycles, 2005, 19, .	4.9	69
70	Modeling and measuring the nocturnal drainage flow in a high-elevation, subalpine forest with complex terrain. Journal of Geophysical Research, 2005, 110, .	3.3	74
71	Atmospheric Disturbances that Generate Intermittent Turbulence in Nocturnal Boundary Layers. Boundary-Layer Meteorology, 2004, 110, 255-279.	2.3	185
72	A nonparametric method for separating photosynthesis and respiration components in CO2flux measurements. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	21

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73	Airflows and turbulent flux measurements in mountainous terrain. Agricultural and Forest Meteorology, 2004, 125, 187-205.	4.8	54
74	An Evaluation of Bulk Ri-Based Surface Layer Flux Formulas for Stable and Very Stable Conditions with Intermittent Turbulence. Journals of the Atmospheric Sciences, 2003, 60, 2523-2537.	1.7	61
75	Heat Balance in the Nocturnal Boundary Layer during CASES-99. Journal of Applied Meteorology and Climatology, 2003, 42, 1649-1666.	1.7	49
76	A Field Intercomparison Technique to Improve the Relative Accuracy of Longwave Radiation Measurements and an Evaluation of CASES-99 Pyrgeometer Data Quality. Journal of Atmospheric and Oceanic Technology, 2003, 20, 348-361.	1.3	16
77	CASES-99: A Comprehensive Investigation of the Stable Nocturnal Boundary Layer. Bulletin of the American Meteorological Society, 2002, 83, 555-581.	3.3	418
78	Intermittent Turbulence Associated with a Density Current Passage in the Stable Boundary Layer. Boundary-Layer Meteorology, 2002, 105, 199-219.	2.3	159
79	Turbulence statistics of a Kelvinâ€“Helmholtz billow event observed in the night-time boundary layer during the Cooperative Atmosphereâ€“Surface Exchange Study field program. Dynamics of Atmospheres and Oceans, 2001, 34, 189-204.	1.8	102
80	Shallow Drainage Flows. Boundary-Layer Meteorology, 2001, 101, 243-260.	2.3	148
81	Comparisons of aircraft, ship, and buoy radiation and SST measurements from TOGA COARE. Journal of Geophysical Research, 2000, 105, 15627-15652.	3.3	16
82	Improved Wind Measurements on Research Aircraft. Journal of Atmospheric and Oceanic Technology, 1999, 16, 860-875.	1.3	87
83	Comparisons of aircraft, ship, and buoy meteorological measurements from TOGA COARE. Journal of Geophysical Research, 1999, 104, 30853-30883.	3.3	12
84	Measuring sea surface mean square slope with a 36-GHz scanning radar altimeter. Journal of Geophysical Research, 1998, 103, 12587-12601.	3.3	48
85	Observations of sea surface mean square slope under light wind during the Tropical Ocean-Global Atmosphere Coupled Ocean-Atmosphere Response Experiment. Journal of Geophysical Research, 1998, 103, 12603-12612.	3.3	6
86	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. Journal of Geophysical Research, 1998, 103, 12613-12628.	3.3	23