Gabriel G Katul

List of Publications by Year
in descending order

469 papers	35,609 citations	4146 87 h-index	5255 165 g-index
511 all docs	511 docs citations	511 times ranked	21174 citing authors

#	Article	IF	Citations
1	FLUXNET: A New Tool to Study the Temporal and Spatial Variability of Ecosystemâ€“Scale Carbon Dioxide, Water Vapor, and Energy Flux Densities. Bulletin of the American Meteorological Society, 2001, 82, 2415-2434.	3.3	3,018
2	Gap filling strategies for defensible annual sums of net ecosystem exchange. Agricultural and Forest Meteorology, 2001, 107, 43-69.	4.8	1,579
3	Environmental controls over carbon dioxide and water vapor exchange of terrestrial vegetation. Agricultural and Forest Meteorology, 2002, 113, 97-120.	4.8	1,133
4	Survey and synthesis of intra- and interspecific variation in stomatal sensitivity to vapour pressure deficit. Plant, Cell and Environment, 1999, 22, 1515-1526.	5.7	986
5	Soil fertility limits carbon sequestration by forest ecosystems in a CO2-enriched atmosphere. Nature, 2001, 411, 469-472.	27.8	957
6	Seasonality of ecosystem respiration and gross primary production as derived from FLUXNET measurements. Agricultural and Forest Meteorology, 2002, 113, 53-74.	4.8	606
7	Mechanisms of long-distance dispersal of seeds by wind. Nature, 2002, 418, 409-413.	27.8	565
8	The Effect of Vegetation Density on Canopy Sub-Layer Turbulence. Boundary-Layer Meteorology, 2004, 111, 565-587.	2.3	550
9	Magnitude of urban heat islands largely explained by climate and population. Nature, 2019, 573, 55-60.	27.8	546
10	Observed increase in local cooling effect of deforestation at higher latitudes. Nature, 2011, 479, 384-387.	27.8	543
11	An approximate analytical model for footprint estimation of scalar fluxes in thermally stratified atmospheric flows. Advances in Water Resources, 2000, 23, 765-772.	3.8	518
12	Gap filling strategies for long term energy flux data sets. Agricultural and Forest Meteorology, 2001, 107, 71-77.	4.8	493
13	A multi-site analysis of random error in tower-based measurements of carbon and energy fluxes. Agricultural and Forest Meteorology, 2006, 136, 1-18.	4.8	398
14	Evapotranspiration: A process driving mass transport and energy exchange in the soilâ€plantâ€atmosphereâ€climate system. Reviews of Geophysics, 2012, 50, .	23.0	334
15	Canopy nitrogen, carbon assimilation, and albedo in temperate and boreal forests: Functional relations and potential climate feedbacks. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19336-19341.	7.1	326
16	ONE- and TWO-Equation Models for Canopy Turbulence. Boundary-Layer Meteorology, 2004, 113, 81-109.	2.3	311
17	A stomatal optimization theory to describe the effects of atmospheric CO2 on leaf photosynthesis and transpiration. Annals of Botany, 2010, 105, 431-442.	2.9	282
18	Mechanistic Analytical Models for Longâ€Distance Seed Dispersal by Wind. American Naturalist, 2005, 166, 368-381.	2.1	245

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19	Leaf stomatal responses to vapour pressure deficit under current and CO₂â€enriched atmosphere explained by the economics of gas exchange. Plant, Cell and Environment, 2009, 32, 968-979.	5.7	244
20	Homogenization of the terrestrial water cycle. Nature Geoscience, 2020, 13, 656-658.	12.9	242
21	DETERMINANTS OF LONG-DISTANCE SEED DISPERSAL BY WIND IN GRASSLANDS. Ecology, 2004, 85, 3056-3068.	3.2	235
22	Intensity and frequency of extreme novel epidemics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	225
23	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
24	A theoretical analysis of microbial eco-physiological and diffusion limitations to carbon cycling in drying soils. Soil Biology and Biochemistry, 2014, 73, 69-83.	8.8	220
25	Separating the effects of climate and vegetation on evapotranspiration along a successional chronosequence in the southeastern US. Global Change Biology, 2006, 12, 2115-2135.	9.5	219
26	Carbon dioxide and water vapor exchange in a warm temperate grassland. Oecologia, 2004, 138, 259-274.	2.0	216
27	A continuous measure of gross primary production for the conterminous United States derived from MODIS and AmeriFlux data. Remote Sensing of Environment, 2010, 114, 576-591.	11.0	210
28	Scaling xylem sap flux and soil water balance and calculating variance: a method for partitioning water flux in forests. Annales Des Sciences ForestiÃ¨res, 1998, 55, 191-216.	1.2	208
29	Optimizing stomatal conductance for maximum carbon gain under water stress: a meta-analysis across plant functional types and climates. Functional Ecology, 2011, 25, 456-467.	3.6	207
30	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, .	4.0	195
31	Relationship between plant hydraulic and biochemical properties derived from a steady-state coupled water and carbon transport model. Plant, Cell and Environment, 2003, 26, 339-350.	5.7	186
32	An evaluation of models for partitioning eddy covariance-measured net ecosystem exchange into photosynthesis and respiration. Agricultural and Forest Meteorology, 2006, 141, 2-18.	4.8	186
33	Soil moisture and vegetation controls on evapotranspiration in a heterogeneous Mediterranean ecosystem on Sardinia, Italy. Water Resources Research, 2006, 42, .	4.2	182
34	Time constant for water transport in loblolly pine trees estimated from time series of evaporative demand and stem sapflow. Trees - Structure and Function, 1997, 11, 412.	1.9	171
35	The dynamic role of root-water uptake in coupling potential to actual transpiration. Advances in Water Resources, 2000, 23, 427-439.	3.8	171
36	Energy partitioning between latent and sensible heat flux during the warm season at FLUXNET sites. Water Resources Research, 2002, 38, 30-1-30-11.	4.2	169

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37	Hydraulic limits on maximum plant transpiration and the emergence of the safetyâ€“efficiency tradeâ€off. New Phytologist, 2013, 198, 169-178.	7.3	168
38	Spread of North American wind-dispersed trees in future environments. Ecology Letters, 2011, 14, 211-219.	6.4	160
39	Hydrologic balance in an intact temperate forest ecosystem under ambient and elevated atmospheric CO2 concentration. Global Change Biology, 2002, 8, 895-911.	9.5	158
40	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
41	Mechanistic models of seed dispersal by wind. Theoretical Ecology, 2011, 4, 113-132.	1.0	157
42	Gap-filling missing data in eddy covariance measurements using multiple imputation (MI) for annual estimations. Agricultural and Forest Meteorology, 2004, 121, 93-111.	4.8	146
43	Phase and amplitude of ecosystem carbon release and uptake potentials as derived from FLUXNET measurements. Agricultural and Forest Meteorology, 2002, 113, 75-95.	4.8	145
44	Albedo estimates for land surface models and support for a new paradigm based on foliage nitrogen concentration. Global Change Biology, 2010, 16, 696-710.	9.5	144
45	An Investigation of Higher-Order Closure Models for a Forested Canopy. Boundary-Layer Meteorology, 1998, 89, 47-74.	2.3	142
46	A mixing layer theory for flow resistance in shallow streams. Water Resources Research, 2002, 38, 32-1-32-8.	4.2	141
47	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.	9.5	140
48	Modelling assimilation and intercellular CO2 from measured conductance: a synthesis of approaches. Plant, Cell and Environment, 2000, 23, 1313-1328.	5.7	139
49	Interannual Invariability of Forest Evapotranspiration and Its Consequence to Water Flow Downstream. Ecosystems, 2010, 13, 421-436.	3.4	137
50	Climate control of terrestrial carbon exchange across biomes and continents. Environmental Research Letters, 2010, 5, 034007.	5.2	137
51	Multiscale analysis of vegetation surface fluxes: from seconds to years. Advances in Water Resources, 2001, 24, 1119-1132.	3.8	136
52	Estimation of surface heat and momentum fluxes using the flux-variance method above uniform and non-uniform terrain. Boundary-Layer Meteorology, 1995, 74, 237-260.	2.3	133
53	Exposure to an enriched CO2 atmosphere alters carbon assimilation and allocation in a pine forest ecosystem. Global Change Biology, 2003, 9, 1378-1400.	9.5	133
54	Biosphere-atmosphere exchange of CO₂ in relation to climate: a cross-biome analysis across multiple time scales. Biogeosciences, 2009, 6, 2297-2312.	3.3	132

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55	WATER BALANCE DELINEATES THE SOIL LAYER IN WHICH MOISTURE AFFECTS CANOPY CONDUCTANCE. , 1998, 8, 990-1002.		131
56	Vegetationâ€infiltration relationships across climatic and soil type gradients. Journal of Geophysical Research, 2010, 115, .	3.3	130
57	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.	3.1	129
58	The hysteretic evapotranspirationâ€"Vapor pressure deficit relation. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 125-140.	3.0	128
59	A Note On The Contribution Of Dispersive Fluxes To Momentum Transfer Within Canopies. Boundary-Layer Meteorology, 2004, 111, 615-621.	2.3	126
60	THE EJECTION-SWEEP CHARACTER OF SCALAR FLUXES IN THE UNSTABLE SURFACE LAYER. Boundary-Layer Meteorology, 1997, 83, 1-26.	2.3	125
61	Finite element tree crown hydrodynamics model (FETCH) using porous media flow within branching elements: A new representation of tree hydrodynamics. Water Resources Research, 2005, 41, .	4.2	123
62	Effects of canopy heterogeneity, seed abscission and inertia on windâ€driven dispersal kernels of tree seeds. Journal of Ecology, 2008, 96, 569-580.	4.0	122
63	Effects of stomatal delays on the economics of leaf gas exchange under intermittent light regimes. New Phytologist, 2011, 192, 640-652.	7.3	122
64	Momentum Transfer and Turbulent Kinetic Energy Budgets within a Dense Model Canopy. Boundary-Layer Meteorology, 2004, 111, 589-614.	2.3	121
65	The structure of turbulent flow through submerged flexible vegetation. Journal of Hydrodynamics, 2019, 31, 274-292.	3.2	121
66	Foliage shedding in deciduous forests lifts up long-distance seed dispersal by wind. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8251-8256.	7.1	116
67	Partitioning interannual variability in net ecosystem exchange between climatic variability and functional change. Tree Physiology, 2003, 23, 433-442.	3.1	115
68	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.	4.8	112
69	Spatial Variability of Turbulent Fluxes in the Roughness Sublayer of an Even-Aged Pine Forest. Boundary-Layer Meteorology, 1999, 93, 1-28.	2.3	111
70	An advection-aridity evaporation model. Water Resources Research, 1992, 28, 127-132.	4.2	110
71	Biological constraints on water transport in the soilâ€"plantâ€"atmosphere system. Advances in Water Resources, 2013, 51, 292-304.	3.8	110
72	First passage time statistics of Brownian motion with purely time dependent drift and diffusion. Physica A: Statistical Mechanics and Its Applications, 2011, 390, 1841-1852.	2.6	109

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73	Reduction of forest floor respiration by fertilization on both carbon dioxide-enriched and reference 17-year-old loblolly pine stands. Global Change Biology, 2003, 9, 849-861.	9.5	108
74	Plant hydraulics accentuates the effect of atmospheric moisture stress on transpiration. Nature Climate Change, 2020, 10, 691-695.	18.8	108
75	Turbulent eddy motion at the forest-atmosphere interface. Journal of Geophysical Research, 1997, 102, 13409-13421.	3.3	107
76	The Effects of Canopy Leaf Area Index on Airflow Across Forest Edges: Large-eddy Simulation and Analytical Results. Boundary-Layer Meteorology, 2008, 126, 433-460.	2.3	107
77	The Influence of Hilly Terrain on Canopy-Atmosphere Carbon Dioxide Exchange. Boundary-Layer Meteorology, 2006, 118, 189-216.	2.3	106
78	Flow dynamics and sediment transport in vegetated rivers: A review. Journal of Hydrodynamics, 2021, 33, 400-420.	3.2	105
79	Net ecosystem exchange of grassland in contrasting wet and dry years. Agricultural and Forest Meteorology, 2006, 139, 323-334.	4.8	101
80	Increasing water use efficiency along the C3 to C4 evolutionary pathway: a stomatal optimization perspective. Journal of Experimental Botany, 2014, 65, 3683-3693.	4.8	101
81	Sensible Heat Flux From Arid Regions: A Simple Flux-Variance Method. Water Resources Research, 1995, 31, 969-973.	4.2	99
82	A Theoretical and Experimental Investigation of Energy-Containing Scales in the Dynamic Sublayer of Boundary-Layer Flows. Boundary-Layer Meteorology, 1998, 86, 279-312.	2.3	99
83	Understanding strategies for seed dispersal by wind under contrasting atmospheric conditions. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19084-19089.	7.1	99
84	Long-distance biological transport processes through the air: can nature's complexity be unfolded in silico?. Diversity and Distributions, 2005, 11, 131-137.	4.1	98
85	Latent and sensible heat flux predictions from a uniform pine forest using surface renewal and flux variance methods. Boundary-Layer Meteorology, 1996, 80, 249-282.	2.3	96
86	Contrasting responses to drought of forest floor CO2 efflux in a Loblolly pine plantation and a nearby Oak-Hickory forest. Global Change Biology, 2005, 11, 421-434.	9.5	95
87	Intermittency, local isotropy, and nonâ€Gaussian statistics in atmospheric surface layer turbulence. Physics of Fluids, 1994, 6, 2480-2492.	4.0	93
88	Exploring the Effects of Microscale Structural Heterogeneity of Forest Canopies Using Large-Eddy Simulations. Boundary-Layer Meteorology, 2009, 132, 351-382.	2.3	93
89	Onset of water stress, hysteresis in plant conductance, and hydraulic lift: Scaling soil water dynamics from millimeters to meters. Water Resources Research, 2008, 44, .	4.2	92
90	Modeling CO2and water vapor turbulent flux distributions within a forest canopy. Journal of Geophysical Research, 2000, 105, 26333-26351.	3.3	90

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91	Organised Motion and Radiative Perturbations in the Nocturnal Canopy Sublayer above an Even-Aged Pine Forest. Boundary-Layer Meteorology, 2004, 112, 129-157.	2.3	90
92	A Penman-Brutsaert Model for wet surface evaporation. Water Resources Research, 1992, 28, 121-126.	4.2	89
93	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.	5.7	89
94	Evaporation from three water bodies of different sizes and climates: Measurements and scaling analysis. Advances in Water Resources, 2008, 31, 160-172.	3.8	89
95	A Lagrangian dispersion model for predicting CO2sources, sinks, and fluxes in a uniform loblolly pine (Pinus taeda L.) stand. Journal of Geophysical Research, 1997, 102, 9309-9321.	3.3	88
96	Role of vegetation in determining carbon sequestration along ecological succession in the southeastern United States. Global Change Biology, 2008, 14, 1409-1427.	9.5	87
97	Reduced resilience as an early warning signal of forest mortality. Nature Climate Change, 2019, 9, 880-885.	18.8	87
98	Role of microtopography in rainfallâ€runoff partitioning: An analysis using idealized geometry. Water Resources Research, 2010, 46, .	4.2	86
99	The effect of plant water storage on water fluxes within the coupled soilâ€“plant system. New Phytologist, 2017, 213, 1093-1106.	7.3	86
100	Optimization of stomatal conductance for maximum carbon gain under dynamic soil moisture. Advances in Water Resources, 2013, 62, 90-105.	3.8	84
101	Soil Moisture Feedbacks on Convection Triggers: The Role of Soilâ€“Plant Hydrodynamics. Journal of Hydrometeorology, 2009, 10, 96-112.	1.9	83
102	Temporal variability in 13C of respired CO2 in a pine and a hardwood forest subject to similar climatic conditions. Oecologia, 2005, 142, 57-69.	2.0	82
103	Multiscale model intercomparisons of CO2 and H2 O exchange rates in a maturing southeastern US pine forest. Global Change Biology, 2006, 12, 1189-1207.	9.5	80
104	Simplified expressions for adjusting higher-order turbulent statistics obtained from open path gas analyzers. Boundary-Layer Meteorology, 2007, 122, 205-216.	2.3	80
105	Canopy conductance of Pinus taeda, Liquidambar styraciflua and Quercus phellos under varying atmospheric and soil water conditions. Tree Physiology, 1998, 18, 307-315.	3.1	79
106	Causality and Persistence in Ecological Systems: A Nonparametric Spectral Granger Causality Approach. American Naturalist, 2012, 179, 524-535.	2.1	78
107	On the spectrum of soil moisture from hourly to interannual scales. Water Resources Research, 2007, 43, .	4.2	77
108	Modelling the limits on the response of net carbon exchange to fertilization in a south-eastern pine forest. Plant, Cell and Environment, 2002, 25, 1095-1120.	5.7	76

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109	A perspective on optimal leaf stomatal conductance under CO2 and light co-limitations. Agricultural and Forest Meteorology, 2013, 182-183, 191-199.	4.8	74
110	Coupling boreal forest CO2, H2O and energy flows by a vertically structured forest canopy â€“ Soil model with separate bryophyte layer. Ecological Modelling, 2015, 312, 385-405.	2.5	74
111	Detecting forest response to droughts with global observations of vegetation water content. Global Change Biology, 2021, 27, 6005-6024.	9.5	73
112	Modeling CO2sources, sinks, and fluxes within a forest canopy. Journal of Geophysical Research, 1999, 104, 6081-6091.	3.3	72
113	The relative importance of ejections and sweeps to momentum transfer in the atmospheric boundary layer. Boundary-Layer Meteorology, 2006, 120, 367-375.	2.3	72
114	Stochastic Dynamics of Plant-Water Interactions. Annual Review of Ecology, Evolution, and Systematics, 2007, 38, 767-791.	8.3	72
115	Investigating a Hierarchy of Eulerian Closure Models for Scalar Transfer Inside Forested Canopies. Boundary-Layer Meteorology, 2008, 128, 1-32.	2.3	72
116	Increases in air temperature can promote wind-driven dispersal and spread of plants. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 3081-3087.	2.6	72
117	Probability density functions of turbulent velocity and temperature in the atmospheric surface layer. Water Resources Research, 1996, 32, 1681-1688.	4.2	71
118	A network model links wood anatomy to xylem tissue hydraulic behaviour and vulnerability to cavitation. Plant, Cell and Environment, 2018, 41, 2718-2730.	5.7	71
119	The relationship between reference canopy conductance and simplified hydraulic architecture. Advances in Water Resources, 2009, 32, 809-819.	3.8	70
120	Estimation of In-Canopy Ammonia Sources and Sinks in a Fertilized Zea mays Field. Environmental Science & Technology, 2010, 44, 1683-1689.	10.0	70
121	Hydraulic resistance of submerged rigid vegetation derived from firstâ€order closure models. Water Resources Research, 2009, 45, .	4.2	69
122	On the Active Role of Temperature in Surface-Layer Turbulence. Journals of the Atmospheric Sciences, 1994, 51, 2181-2195.	1.7	68
123	Low-wavenumber spectral characteristics of velocity and temperature in the atmospheric surface layer. Journal of Geophysical Research, 1995, 100, 14243.	3.3	68
124	The porous media model for the hydraulic system of a conifer tree: Linking sap flux data to transpiration rate. Ecological Modelling, 2006, 191, 447-468.	2.5	67
125	Empirical and optimal stomatal controls on leaf and ecosystem level CO2 and H2O exchange rates. Agricultural and Forest Meteorology, 2011, 151, 1672-1689.	4.8	67
126	A Note on the Flux-Variance Similarity Relationships for Heat and Water Vapour in the Unstable Atmospheric Surface Layer. Boundary-Layer Meteorology, 1999, 90, 327-338.	2.3	66

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127	Principal Length Scales in Second-Order Closure Models for Canopy Turbulence. Journal of Applied Meteorology and Climatology, 1999, 38, 1631-1643.	1.7	66
128	Invariant soil water potential at zero microbial respiration explained by hydrological discontinuity in dry soils. Geophysical Research Letters, 2014, 41, 7151-7158.	4.0	66
129	Large CO ₂ effluxes at night and during synoptic weather events significantly contribute to CO ₂ emissions from a reservoir. Environmental Research Letters, 2016, 11, 064001.	5.2	66
130	Increasing atmospheric humidity and CO ₂ concentration alleviate forest mortality risk. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9918-9923.	7.1	66
131	Global convergence of COVID-19 basic reproduction number and estimation from early-time SIR dynamics. PLoS ONE, 2020, 15, e0239800.	2.5	66
132	Seasonal hysteresis of surface urban heat islands. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7082-7089.	7.1	66
133	Soil water depletion by oak trees and the influence of root water uptake on the moisture content spatial statistics. Water Resources Research, 1997, 33, 611-623.	4.2	64
134	Vertical variability and effect of stability on turbulence characteristics down to the floor of a pine forest. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 919-936.	1.6	64
135	Estimation of longâ€term basin scale evapotranspiration from streamflow time series. Water Resources Research, 2010, 46, .	4.2	64
136	An Investigation of the Conditional Sampling Method Used to Estimate Fluxes of Active, Reactive, and Passive Scalars. Journal of Applied Meteorology and Climatology, 1996, 35, 1835-1845.	1.7	63
137	Estimation of groundwater evaporation and salt flux from Owens Lake, California, USA. Journal of Hydrology, 1997, 200, 110-135.	5.4	63
138	Physical basis for a time series model of soil water content. Water Resources Research, 1992, 28, 2437-2446.	4.2	62
139	Relative importance of local and regional controls on coupled water, carbon, and energy fluxes. Advances in Water Resources, 2001, 24, 1103-1118.	3.8	62
140	HUMAN EFFECTS ON LONG-DISTANCE WIND DISPERSAL AND COLONIZATION BY GRASSLAND PLANTS. Ecology, 2004, 85, 3069-3079.	3.2	62
141	THE STRUCTURE OF TURBULENCE NEAR A TALL FOREST EDGE: THE BACKWARD-FACING STEP FLOW ANALOGY REVISITED. , 2008, 18, 1420-1435.		62
142	Persistence and memory timescales in rootâ€zone soil moisture dynamics. Water Resources Research, 2016, 52, 1427-1445.	4.2	62
143	The Persistent Challenge of Surface Heterogeneity in Boundary-Layer Meteorology: A Review. Boundary-Layer Meteorology, 2020, 177, 227-245.	2.3	62
144	Estimation of the diurnal variation of potential evaporation from a wet bare soil surface. Journal of Hydrology, 1992, 132, 71-89.	5.4	61

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145	Active Turbulence and Scalar Transport near the Forestâ€“Atmosphere Interface. Journal of Applied Meteorology and Climatology, 1998, 37, 1533-1546.	1.7	61
146	Buoyancy and The Sensible Heat Flux Budget Within Dense Canopies. Boundary-Layer Meteorology, 2006, 118, 217-240.	2.3	61
147	Partitioning ozone fluxes between canopy and forest floor by measurements and a multi-layer model. Agricultural and Forest Meteorology, 2013, 173, 85-99.	4.8	61
148	The partitioning of attached and detached eddy motion in the atmospheric surface layer using Lorentz wavelet filtering. Boundary-Layer Meteorology, 1996, 77, 153-172.	2.3	60
149	Modelling Vegetation-Atmosphere Co2 Exchange By A Coupled Eulerian-Langrangian Approach. Boundary-Layer Meteorology, 2000, 95, 91-122.	2.3	60
150	Scalar dispersion within a model canopy: Measurements and three-dimensional Lagrangian models. Advances in Water Resources, 2006, 29, 326-335.	3.8	60
151	Hydrologic and atmospheric controls on initiation of convective precipitation events. Water Resources Research, 2007, 43, .	4.2	60
152	Analysis of Land Surface Heat Fluxes Using the Orthonormal Wavelet Approach. Water Resources Research, 1995, 31, 2743-2749.	4.2	59
153	ENERGY-INERTIAL SCALE INTERACTIONS FOR VELOCITY AND TEMPERATURE IN THE UNSTABLE ATMOSPHERIC SURFACE LAYER. Boundary-Layer Meteorology, 1997, 82, 49-80.	2.3	59
154	Water cycling in a Bornean tropical rain forest under current and projected precipitation scenarios. Water Resources Research, 2004, 40, .	4.2	59
155	Tree root systems competing for soil moisture in a 3D soilâ€“plant model. Advances in Water Resources, 2014, 66, 32-42.	3.8	59
156	Linking Meteorology, Turbulence, and Air Chemistry in the Amazon Rain Forest. Bulletin of the American Meteorological Society, 2016, 97, 2329-2342.	3.3	59
157	Boundary-Layer Flow Over Complex Topography. Boundary-Layer Meteorology, 2020, 177, 247-313.	2.3	58
158	Dissipation methods, Taylor's hypothesis, and stability correction functions in the atmospheric surface layer. Journal of Geophysical Research, 1997, 102, 16391-16405.	3.3	57
159	A stochastic model for daily subsurface CO2 concentration and related soil respiration. Advances in Water Resources, 2008, 31, 987-994.	3.8	56
160	Spectral Short-circuiting and Wake Production within the Canopy Trunk Space of an Alpine Hardwood Forest. Boundary-Layer Meteorology, 2008, 126, 415-431.	2.3	56
161	Analysis of soil carbon transit times and age distributions using network theories. Journal of Geophysical Research, 2009, 114, .	3.3	56
162	Mean Velocity Profile in a Sheared and Thermally Stratified Atmospheric Boundary Layer. Physical Review Letters, 2011, 107, 268502.	7.8	56

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163	Abiotic and biotic controls of soil moisture spatiotemporal variability and the occurrence of hysteresis. Water Resources Research, 2015, 51, 3505-3524.	4.2	56
164	Non-closure of the surface energy balance explained by phase difference between vertical velocity and scalars of large atmospheric eddies. Environmental Research Letters, 2017, 12, 034025.	5.2	56
165	The hysteresis response of soil CO₂ concentration and soil respiration to soil temperature. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1605-1618.	3.0	55
166	Estimation of in situ hydraulic conductivity function from nonlinear filtering theory. Water Resources Research, 1993, 29, 1063-1070.	4.2	53
167	Estimating scalar sources, sinks, and fluxes in a forest canopy using Lagrangian, Eulerian, and hybrid inverse models. Journal of Geophysical Research, 2000, 105, 29475-29488.	3.3	53
168	Evapotranspiration Intensifies over the Conterminous United States. Journal of Water Resources Planning and Management - ASCE, 2001, 127, 354-362.	2.6	51
169	Diurnal centroid of ecosystem energy and carbon fluxes at FLUXNET sites. Journal of Geophysical Research, 2003, 108, .	3.3	51
170	Turbulent flows on forested hilly terrain: the recirculation region. Quarterly Journal of the Royal Meteorological Society, 2007, 133, 1027-1039.	2.7	51
171	Vegetation pattern shift as a result of rising atmospheric CO2 in arid ecosystems. Theoretical Population Biology, 2008, 74, 332-344.	1.1	51
172	Scaling Properties of Biologically Active Scalar Concentration Fluctuations in the Atmospheric Surface Layer over a Managed Peatland. Boundary-Layer Meteorology, 2010, 136, 407-430.	2.3	51
173	Radon measurements in well and spring water in Lebanon. Radiation Measurements, 2007, 42, 298-303.	1.4	50
174	A flow resistance model for assessing the impact of vegetation on flood routing mechanics. Water Resources Research, 2011, 47, .	4.2	50
175	Partitioning Eddy Covariance Water Flux Components Using Physiological and Micrometeorological Approaches. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 3353-3370.	3.0	50
176	Turbulence structure in open channel flow with partially covered artificial emergent vegetation. Journal of Hydrology, 2019, 573, 180-193.	5.4	50
177	Modelling night-time ecosystem respiration by a constrained source optimization method. Global Change Biology, 2002, 8, 124-141.	9.5	49
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