Timo Vesala

List of Publications by Year
in descending order

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381 papers	41,744 citations	7096 78 h-index	3106 187 g-index
430 all docs	430 docs citations	430 times ranked	23788 citing authors

#	Article	IF	Citations
1	Europe-wide reduction in primary productivity caused by the heat and drought in 2003. Nature, 2005, 437, 529-533.	27.8	3,245
2	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
3	On the separation of net ecosystem exchange into assimilation and ecosystem respiration: review and improved algorithm. Global Change Biology, 2005, 11, 1424-1439.	9.5	2,778
4	Gap filling strategies for defensible annual sums of net ecosystem exchange. Agricultural and Forest Meteorology, 2001, 107, 43-69.	4.8	1,579
5	Estimates of the Annual Net Carbon and Water Exchange of Forests: The EUROFLUX Methodology. Advances in Ecological Research, 1999, , 113-175.	2.7	1,540
6	Respiration as the main determinant of carbon balance in European forests. Nature, 2000, 404, 861-865.	27.8	1,438
7	Towards a standardized processing of Net Ecosystem Exchange measured with eddy covariance technique: algorithms and uncertainty estimation. Biogeosciences, 2006, 3, 571-583.	3.3	1,206
8	Environmental controls over carbon dioxide and water vapor exchange of terrestrial vegetation. Agricultural and Forest Meteorology, 2002, 113, 97-120.	4.8	1,133
9	Net carbon dioxide losses of northern ecosystems in response to autumn warming. Nature, 2008, 451, 49-52.	27.8	930
10	CO₂ balance of boreal, temperate, and tropical forests derived from a global database. Global Change Biology, 2007, 13, 2509-2537.	9.5	863
11	Productivity overshadows temperature in determining soil and ecosystem respiration across European forests. Global Change Biology, 2001, 7, 269-278.	9.5	843
12	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. Scientific Data, 2020, 7, 225.	5.3	646
13	Atmospheric composition change: Ecosystemsâ€“Atmosphere interactions. Atmospheric Environment, 2009, 43, 5193-5267.	4.1	609
14	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.	4.8	547
15	Advantages of diffuse radiation for terrestrial ecosystem productivity. Journal of Geophysical Research, 2002, 107, ACL 2-1-ACL 2-23.	3.3	518
16	Evidence for soil water control on carbon and water dynamics in European forests during the extremely dry year: 2003. Agricultural and Forest Meteorology, 2007, 143, 123-145.	4.8	509
17	Gap filling strategies for long term energy flux data sets. Agricultural and Forest Meteorology, 2001, 107, 71-77.	4.8	493
18	Reduction of ecosystem productivity and respiration during the European summer 2003 climate anomaly: a joint flux tower, remote sensing and modelling analysis. Global Change Biology, 2007, 13, 634-651.	9.5	486

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19	Terrestrial biogeochemical feedbacks in the climate system. Nature Geoscience, 2010, 3, 525-532.	12.9	486
20	Temporal and amongâ€site variability of inherent water use efficiency at the ecosystem level. Global Biogeochemical Cycles, 2009, 23, .	4.9	422
21	Comparison of different chamber techniques for measuring soil CO2 efflux. Agricultural and Forest Meteorology, 2004, 123, 159-176.	4.8	420
22	A new feedback mechanism linking forests, aerosols, and climate. Atmospheric Chemistry and Physics, 2004, 4, 557-562.	4.9	337
23	Evaluation of forest snow processes models (SnowMIP2). Journal of Geophysical Research, 2009, 114, .	3.3	290
24	Air temperature triggers the recovery of evergreen boreal forest photosynthesis in spring. Global Change Biology, 2003, 9, 1410-1426.	9.5	273
25	Joint control of terrestrial gross primary productivity by plant phenology and physiology. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2788-2793.	7.1	265
26	Objective threshold determination for nighttime eddy flux filtering. Agricultural and Forest Meteorology, 2005, 128, 179-197.	4.8	241
27	Annual cycle of methane emission from a boreal fen measured by the eddy covariance technique. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 449-457.	1.6	224
28	Modeling xylem and phloem water flows in trees according to cohesion theory and MÃ¼nch hypothesis. Trees - Structure and Function, 2006, 20, 67-78.	1.9	206
29	Factors controlling regional differences in forest soil emission of nitrogen oxides (NO and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	3.3	205
30	Challenges in quantifying biosphereâ€“atmosphere exchange of nitrogen species. Environmental Pollution, 2007, 150, 125-139.	7.5	203
31	Flux and concentration footprint modelling: State of the art. Environmental Pollution, 2008, 152, 653-666.	7.5	199
32	Quality control of CarboEurope flux data â€“ Part 1: Coupling footprint analyses with flux data quality assessment to evaluate sites in forest ecosystems. Biogeosciences, 2008, 5, 433-450.	3.3	192
33	Quality analysis applied on eddy covariance measurements at complex forest sites using footprint modelling. Theoretical and Applied Climatology, 2005, 80, 121-141.	2.8	173
34	The uncertain climate footprint of wetlands under human pressure. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4594-4599.	7.1	171
35	Inventories of N₂O and NO emissions from European forest soils. Biogeosciences, 2005, 2, 353-375.	3.3	170
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	Long-term energy flux measurements and energy balance over a small boreal lake using eddy covariance technique. Journal of Geophysical Research, 2011, 116, .	3.3	168
38	Autoregressive filtering versus linear detrending in estimation of fluxes by the eddy covariance method. Boundary-Layer Meteorology, 1999, 91, 259-280.	2.3	164
39	Assimilate transport in phloem sets conditions for leaf gas exchange. Plant, Cell and Environment, 2013, 36, 655-669.	5.7	161
40	Effect of thinning on surface fluxes in a boreal forest. Global Biogeochemical Cycles, 2005, 19, n/a-n/a.	4.9	157
41	Footprint Analysis For Measurements Over A Heterogeneous Forest. Boundary-Layer Meteorology, 2000, 97, 137-166.	2.3	151
42	Estimating parameters in a land-surface model by applying nonlinear inversion to eddy covariance flux measurements from eight FLUXNET sites. Global Change Biology, 2007, 13, 652-670.	9.5	144
43	Interannual variability of net ecosystem productivity in forests is explained by carbon flux phenology in autumn. Global Ecology and Biogeography, 2013, 22, 994-1006.	5.8	144
44	Partitioning forest carbon fluxes with overstory and understory eddy-covariance measurements: A synthesis based on FLUXNET data. Agricultural and Forest Meteorology, 2007, 144, 14-31.	4.8	138
45	A review of measurement and modelling results of particle atmosphereâ€“surface exchange. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 42.	1.6	138
46	The effect of atmospheric nitric acid vapor on cloud condensation nucleus activation. Journal of Geophysical Research, 1993, 98, 22949-22958.	3.3	137
47	Evaluation of six process-based forest growth models using eddy-covariance measurements of CO2 and H2 O fluxes at six forest sites in Europe. Global Change Biology, 2002, 8, 213-230.	9.5	135
48	New insights into the covariation of stomatal, mesophyll and hydraulic conductances from optimization models incorporating nonstomatal limitations to photosynthesis. New Phytologist, 2018, 217, 571-585.	7.3	135
49	Developing an empirical model of stand GPP with the LUE approach: analysis of eddy covariance data at five contrasting conifer sites in Europe. Global Change Biology, 2008, 14, 92-108.	9.5	132
50	Hydrocarbon fluxes above a Scots pine forest canopy: measurements and modeling. Atmospheric Chemistry and Physics, 2007, 7, 3361-3372.	4.9	131
51	Sustainable urban metabolism as a link between bio-physical sciences and urban planning: The BRIDGE project. Landscape and Urban Planning, 2013, 112, 100-117.	7.5	131
52	Foliage surface ozone deposition: a role for surface moisture?. Biogeosciences, 2006, 3, 209-228.	3.3	128
53	Vertical aerosol particle fluxes measured by eddy covariance technique using condensational particle counter. Journal of Aerosol Science, 1998, 29, 157-171.	3.8	127
54	Surfaceâ€“atmosphere interactions over complex urban terrain in Helsinki, Finland. Tellus, Series B: Chemical and Physical Meteorology, 2022, 60, 188.	1.6	125

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55	Models for condensational growth and evaporation of binary aerosol particles. Journal of Aerosol Science, 1997, 28, 565-598.	3.8	122
56	Tree stem diameter variations and transpiration in Scots pine: an analysis using a dynamic sap flow model. Tree Physiology, 2001, 21, 889-897.	3.1	122
57	On the temporal upscaling of evapotranspiration from instantaneous remote sensing measurements to 8-day mean daily-sums. Agricultural and Forest Meteorology, 2012, 152, 212-222.	4.8	121
58	Similarities in ground- and satellite-based NDVI time series and their relationship to physiological activity of a Scots pine forest in Finland. Remote Sensing of Environment, 2004, 93, 225-237.	11.0	118
59	Boreal pine forest floor biogenic volatile organic compound emissions peak in early summer and autumn. Agricultural and Forest Meteorology, 2011, 151, 682-691.	4.8	118
60	Wintertime photosynthesis and water uptake in a boreal forest. Tree Physiology, 2006, 26, 749-757.	3.1	117
61	CO₂ exchange of a sedge fen in southern Finlandâ€"the impact of a drought period. Tellus, Series B: Chemical and Physical Meteorology, 2022, 59, 826.	1.6	117
62	Thermal optimality of net ecosystem exchange of carbon dioxide and underlying mechanisms. New Phytologist, 2012, 194, 775-783.	7.3	111
63	Exceptional carbon uptake in European forests during the warm spring of 2007: a dataâ€"model analysis. Global Change Biology, 2009, 15, 1455-1474.	9.5	110
64	Spatial variation in plant community functions regulates carbon gas dynamics in a boreal fen ecosystem. Tellus, Series B: Chemical and Physical Meteorology, 2022, 59, 838.	1.6	109
65	Modeling air-mediated dispersal of spores, pollen and seeds in forested areas. Ecological Modelling, 2007, 208, 177-188.	2.5	109
66	Relative Humidity Effect on the High-Frequency Attenuation of Water Vapor Flux Measured by a Closed-Path Eddy Covariance System. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1856-1866.	1.3	108
67	The summertime Boreal forest field measurement intensive (HUMPPA-COPEC-2010): an overview of meteorological and chemical influences. Atmospheric Chemistry and Physics, 2011, 11, 10599-10618.	4.9	108
68	Time lags for xylem and stem diameter variations in a Scots pine tree. Plant, Cell and Environment, 2002, 25, 1071-1077.	5.7	106
69	Mass and Thermal Accommodation during Gas-Liquid Condensation of Water. Physical Review Letters, 2004, 93, 075701.	7.8	105
70	Eddy covariance measurements of carbon exchange and latent and sensible heat fluxes over a boreal lake for a full open-water period. Journal of Geophysical Research, 2006, 111, .	3.3	105
71	Biosphereâ€"atmosphere exchange of reactive nitrogen and greenhouse gases at the NitroEurope core flux measurement sites: Measurement strategy and first data sets. Agriculture, Ecosystems and Environment, 2009, 133, 139-149.	5.3	104
72	Long-term direct CO₂flux measurements over a boreal lake: Five years of eddy covariance data. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	104

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73	Turbulence Statistics Inside and Over Forest: Influence on Footprint Prediction. Boundary-Layer Meteorology, 2003, 109, 163-189.	2.3	103
74	Reviews and syntheses: Carbonyl sulfide as aÂmulti-scale tracer for carbon and water cycles. Biogeosciences, 2018, 15, 3625-3657.	3.3	98
75	Comparison between static chamber and tunable diode laser-based eddy covariance techniques for measuring nitrous oxide fluxes from a cotton field. Agricultural and Forest Meteorology, 2013, 171-172, 9-19.	4.8	97
76	Interannual variability and timing of growing-season CO2exchange in a boreal forest. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	95
77	Latitudinal patterns of magnitude and interannual variability in net ecosystem exchange regulated by biological and environmental variables. Global Change Biology, 2009, 15, 2905-2920.	9.5	94
78	Gas concentration driven fluxes of nitrous oxide and carbon dioxide in boreal forest soil. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 458-469.	1.6	92
79	Nitrous Oxide Emissions from a Municipal Landfill. Environmental Science & Technology, 2005, 39, 7790-7793.	10.0	89
80	Do small spores disperse further than large spores?. Ecology, 2014, 95, 1612-1621.	3.2	87
81	Four-year (2006â€“2009) eddy covariance measurements of CO₂ flux over an urban area in Beijing. Atmospheric Chemistry and Physics, 2012, 12, 7881-7892.	4.9	85
82	Early snowmelt significantly enhances boreal springtime carbon uptake. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11081-11086.	7.1	84
83	Micrometeorological Measurements of Methane and Carbon Dioxide Fluxes at a Municipal Landfill. Environmental Science & Technology, 2007, 41, 2717-2722.	10.0	82
84	Seasonal and annual variation of carbon dioxide surface fluxes in Helsinki, Finland, in 2006â€“2010. Atmospheric Chemistry and Physics, 2012, 12, 8475-8489.	4.9	82
85	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.	9.5	81
86	Methane and carbon dioxide fluxes over a lake: comparison between eddy covariance, floating chambers and boundary layer method. Biogeosciences, 2018, 15, 429-445.	3.3	81
87	Footprints and Fetches for Fluxes over Forest Canopies with Varying Structure and Density. Boundary-Layer Meteorology, 2003, 106, 437-459.	2.3	80
88	LAKE 2.0: a model for temperature, methane, carbon dioxide and oxygen dynamics in lakes. Geoscientific Model Development, 2016, 9, 1977-2006.	3.6	80
89	FLUXNET-CH₄: a global, multi-ecosystem dataset and analysis of methane seasonality from freshwater wetlands. Earth System Science Data, 2021, 13, 3607-3689.	9.9	79
90	Commentary on cloud modelling and the mass accommodation coefficient of water. Atmospheric Chemistry and Physics, 2005, 5, 461-464.	4.9	78

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91	Testing the applicability of neural networks as a gap-filling method using CH₄ flux data from high latitude wetlands. Biogeosciences, 2013, 10, 8185-8200.	3.3	78
92	Temporal Variation of Ecosystem Scale Methane Emission From a Boreal Fen in Relation to Temperature, Water Table Position, and Carbon Dioxide Fluxes. Global Biogeochemical Cycles, 2018, 32, 1087-1106.	4.9	78
93	Effects of water clarity on lake stratification and lakeâ€atmosphere heat exchange. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7412-7428.	3.3	77
94	Theoretical consideration on sticking probabilities. Journal of Aerosol Science, 1996, 27, 869-882.	3.8	76
95	Intra-City Variation in Urban Morphology and Turbulence Structure in Helsinki, Finland. Boundary-Layer Meteorology, 2013, 146, 469-496.	2.3	76
96	Condensation of water vapor: Experimental determination of mass and thermal accommodation coefficients. Journal of Geophysical Research, 2006, 111, .	3.3	75
97	Environmental controls on the CO₂ exchange in north European mires. Tellus, Series B: Chemical and Physical Meteorology, 2022, 59, 812.	1.6	75
98	Leaf area index is the principal scaling parameter for both gross photosynthesis and ecosystem respiration of Northern deciduous and coniferous forests. Tellus, Series B: Chemical and Physical Meteorology, 2008, 60, 129-142.	1.6	75
99	Condensation in the continuum regime. Journal of Aerosol Science, 1991, 22, 337-346.	3.8	74
100	Vertical aerosol fluxes measured by the eddy covariance method and deposition of nucleation mode particles above a Scots pine forest in southern Finland. Journal of Geophysical Research, 2000, 105, 19905-19916.	3.3	74
101	Effects of cooling and internal wave motions on gas transfer coefficients in a boreal lake. Tellus, Series B: Chemical and Physical Meteorology, 2022, 66, 22827.	1.6	74
102	Mass accommodation coefficient of water vapor on liquid water. Geophysical Research Letters, 2004, 31, .	4.0	73
103	Fraction of natural area as main predictor of net CO₂ emissions from cities. Geophysical Research Letters, 2012, 39, .	4.0	73
104	Station for Measuring Ecosystem-Atmosphere Relations: SMEAR. , 2013, , 471-487.		73
105	Ventilation and Air Quality in City Blocks Using Large-Eddy Simulationâ€”Urban Planning Perspective. Atmosphere, 2018, 9, 65.	2.3	73
106	The interdependence of evaporation and settling for airborne freely falling droplets. Journal of Aerosol Science, 1989, 20, 749-763.	3.8	72
107	Ozone deposition into a boreal forest over a decade of observations: evaluating deposition partitioning and driving variables. Atmospheric Chemistry and Physics, 2012, 12, 12165-12182.	4.9	72
108	Simulation and scaling of temporal variation in gross primary production for coniferous and deciduous temperate forests. Global Change Biology, 2004, 10, 37-51.	9.5	71

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109	Fluxes of carbon dioxide and water vapour over Scots pine forest and clearing. Agricultural and Forest Meteorology, 2002, 111, 187-202.	4.8	70
110	Photosynthesis drives anomalies in net carbon-exchange of pine forests at different latitudes. Global Change Biology, 2007, 13, 2110-2127.	9.5	69
111	Monthly gridded data product of northern wetland methane emissions based on upscaling eddy covariance observations. Earth System Science Data, 2019, 11, 1263-1289.	9.9	69
112	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
113	Changes in biogeochemistry and carbon fluxes in a boreal forest after the clear-cutting and partial burning of slash. Agricultural and Forest Meteorology, 2014, 188, 33-44.	4.8	67
114	Refilling of a Hydraulically Isolated Embolized Xylem Vessel: Model Calculations. Annals of Botany, 2003, 91, 419-428.	2.9	66
115	Leaf carbon and water status control stomatal and nonstomatal limitations of photosynthesis in trees. New Phytologist, 2020, 226, 690-703.	7.3	66
116	Sugar transport together with environmental conditions controls time lags between xylem and stem diameter changes. Plant, Cell and Environment, 2003, 26, 1257-1265.	5.7	64
117	Measurements of ozone removal by Scots pine shoots: calibration of a stomatal uptake model including the non-stomatal component. Atmospheric Environment, 2004, 38, 2387-2398.	4.1	64
118	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
119	Carbon dioxide and energy fluxes over a small boreal lake in Southern Finland. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1296-1314.	3.0	64
120	Revised eddy covariance flux calculation methodologies â€“ effect on urban energy balance. Tellus, Series B: Chemical and Physical Meteorology, 2022, 64, 18184.	1.6	63
121	On the theories of type 1 polar stratospheric cloud formation. Journal of Geophysical Research, 1995, 100, 11275.	3.3	62
122	Relaxed Eddy Accumulation System for Size-Resolved Aerosol Particle Flux Measurements. Journal of Atmospheric and Oceanic Technology, 2004, 21, 933-943.	1.3	61
123	Plantâ€mediated nitrous oxide emissions from beech (Fagus sylvatica) leaves. New Phytologist, 2005, 168, 93-98.	7.3	61
124	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
125	On the damping of temperature fluctuations in a circular tube relevant to the eddy covariance measurement technique. Journal of Geophysical Research, 1997, 102, 12789-12794.	3.3	60
126	Pan-European delta13C values of air and organic matter from forest ecosystems. Global Change Biology, 2005, 11, 1065-1093.	9.5	60

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127	Entrepreneurship and labor market institutions. Economic Modelling, 2005, 22, 828-847.	3.8	60
128	Continuous VOC flux measurements on boreal forest floor. Plant and Soil, 2013, 369, 241-256.	3.7	59
129	Identifying dominant environmental predictors of freshwater wetland methane fluxes across diurnal to seasonal time scales. Global Change Biology, 2021, 27, 3582-3604.	9.5	59
130	ICOS eddy covariance flux-station site setup: a review. International Agrophysics, 2018, 32, 471-494.	1.7	59
131	Properties of aerosol signature size distributions in the urban environment as derived by cluster analysis. Atmospheric Environment, 2012, 61, 350-360.	4.1	58
132	Nitrous oxide emissions from a beech forest floor measured by eddy covariance and soil enclosure techniques. Biogeosciences, 2005, 2, 377-387.	3.3	57
133	Autumn temperature and carbon balance of a boreal Scots pine forest in Southern Finland. Biogeosciences, 2010, 7, 163-176.	3.3	57
134	Pan-Eurasian Experiment (PEEX): towards a holistic understanding of the feedbacks and interactions in the landâ€“atmosphereâ€“oceanâ€“society continuum in the northern Eurasian region. Atmospheric Chemistry and Physics, 2016, 16, 14421-14461.	4.9	57
135	Effect of Leaf Water Potential on Internal Humidity and CO2 Dissolution: Reverse Transpiration and Improved Water Use Efficiency under Negative Pressure. Frontiers in Plant Science, 2017, 8, 54.	3.6	57
136	Annual particle flux observations over a heterogeneous urban area. Atmospheric Chemistry and Physics, 2009, 9, 7847-7856.	4.9	56
137	Nitrogen balance of a boreal Scots pine forest. Biogeosciences, 2013, 10, 1083-1095.	3.3	55
138	Biophysical controls on CO₂fluxes of three Northern forests based on long-term eddy covariance data. Tellus, Series B: Chemical and Physical Meteorology, 2008, 60, 143-152.	1.6	53
139	Comparison between eddy covariance and automatic chamber techniques for measuring net ecosystem exchange of carbon dioxide in cotton and wheat fields. Biogeosciences, 2013, 10, 6865-6877.	3.3	53
140	Effect of chemical degradation on fluxes of reactive compounds â€“ a study with a stochastic Lagrangian transport model. Atmospheric Chemistry and Physics, 2012, 12, 4843-4854.	4.9	52
141	Latent heat exchange in the boreal and arctic biomes. Global Change Biology, 2014, 20, 3439-3456.	9.5	52
142	Uncertainties in measurement and modelling of net ecosystem exchange of a forest. Agricultural and Forest Meteorology, 2006, 138, 244-257.	4.8	51
143	Neglecting diurnal variations leads to uncertainties in terrestrial nitrous oxide emissions. Scientific Reports, 2016, 6, 25739.	3.3	51
144	Particle fluxes over forests: Analyses of flux methods and functional dependencies. Journal of Geophysical Research, 2007, 112, .	3.3	50

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145	Direct effect of aerosols on solar radiation and gross primary production in boreal and hemiboreal forests. Atmospheric Chemistry and Physics, 2018, 18, 17863-17881.	4.9	50
146	An improvement of the method for calibrating measurements of photosynthetic CO2flux. Plant, Cell and Environment, 1999, 22, 1297-1301.	5.7	49
147	Measurements of aerosol particle dry deposition velocity using the relaxed eddy accumulation technique. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 381-386.	1.6	49
148	Mass transfer from a dropâ€”II. Theoretical analysis of temperature dependent mass flux correlation. International Journal of Heat and Mass Transfer, 1995, 38, 1705-1708.	4.8	48
149	The Helsinki Testbed: A Mesoscale Measurement, Research, and Service Platform. Bulletin of the American Meteorological Society, 2011, 92, 325-342.	3.3	48
150	Flux footprints over complex terrain covered by heterogeneous forest. Agricultural and Forest Meteorology, 2004, 127, 143-158.	4.8	47
151	Quantifying the influence of climate and biological drivers on the interannual variability of carbon exchanges in European forests through process-based modelling. Agricultural and Forest Meteorology, 2012, 154-155, 99-112.	4.8	47
152	Estimation of forestâ€“atmosphere CO2 exchange by eddy covariance and profile techniques. Agricultural and Forest Meteorology, 2004, 126, 141-155.	4.8	45
153	A case study of eddy covariance flux of N₂O measured within forest ecosystems: quality control and flux error analysis. Biogeosciences, 2010, 7, 427-440.	3.3	45
154	On the choice of the driving temperature for eddy-covariance carbon dioxide flux partitioning. Biogeosciences, 2012, 9, 5243-5259.	3.3	45
155	Interpretation of aerosol particle fluxes over a pine forest: Dry deposition and random errors. Journal of Geophysical Research, 2003, 108, .	3.3	44
156	Determining the contribution of vertical advection to the net ecosystem exchange at HyytiÃlÃ forest, Finland. Tellus, Series B: Chemical and Physical Meteorology, 2022, 59, 900.	1.6	44
157	Refilling of embolised conduits as a consequence of 'MÃ¼nch water' circulation. Functional Plant Biology, 2006, 33, 949.	2.1	44
158	The Integrated Carbon Observation System in Europe. Bulletin of the American Meteorological Society, 2022, 103, E855-E872.	3.3	44
159	A Three-dimensional Stomatal CO2Exchange Model Including Gaseous Phase and Leaf Mesophyll Separated by Irregular Interface. Journal of Theoretical Biology, 1999, 196, 115-128.	1.7	43
160	Ultraviolet light and leaf emission of NOx. Nature, 2003, 422, 134-134.	27.8	43
161	H2O and CO2fluxes at the floor of a boreal pine forest. Tellus, Series B: Chemical and Physical Meteorology, 2008, 60, 167-178.	1.6	43
162	Methodology for direct field measurements of ozone flux to foliage with shoot chambers. Atmospheric Environment, 2002, 36, 19-29.	4.1	42

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163	Relationships between Embolism, Stem Water Tension, and Diameter Changes. Journal of Theoretical Biology, 2002, 215, 23-38.	1.7	42
164	Effect of clearcuts on footprints and flux measurements above a forest canopy. Agricultural and Forest Meteorology, 2005, 133, 182-196.	4.8	42
165	Characterizing the Seasonal Dynamics of Plant Community Photosynthesis Across a Range of Vegetation Types. , 2009, , 35-58.		42
166	Controls on winter ecosystem respiration in temperate and boreal ecosystems. Biogeosciences, 2011, 8, 2009-2025.	3.3	42
167	Variability in cold front activities modulating cool-season evaporation from a southern inland water in the USA. Environmental Research Letters, 2011, 6, 024022.	5.2	42
168	Species traits and inertial deposition of fungal spores. Journal of Aerosol Science, 2013, 61, 81-98.	3.8	42
169	Field intercomparison of four methane gas analyzers suitable for eddy covariance flux measurements. Biogeosciences, 2013, 10, 3749-3765.	3.3	42
170	Differentiating moss from higher plants is critical in studying the carbon cycle of the boreal biome. Nature Communications, 2014, 5, 4270.	12.8	42
171	Modeling the dynamics of pressure propagation and diameter variation in tree sapwood. Tree Physiology, 2005, 25, 1091-1099.	3.1	41
172	Highâ€frequency measurements of productivity of planktonic algae using rugged nondispersive infrared carbon dioxide probes. Limnology and Oceanography: Methods, 2008, 6, 347-354.	2.0	41
173	Contributions of climate, leaf area index and leaf physiology to variation in gross primary production of six coniferous forests across Europe: a model-based analysis. Tree Physiology, 2009, 29, 621-639.	3.1	41
174	Air pollution in eastern Lapland : challenge for an environmental measurement station.. Silva Fennica, 1994, 28, .	1.3	41
175	Analysis of measurement techniques to determine dry deposition velocities of aerosol particles with diameters less than 100 nm. Journal of Aerosol Science, 2003, 34, 747-764.	3.8	40
176	Modeling GPP in the Nordic forest landscape with MODIS time series dataâ€"Comparison with the MODIS GPP product. Remote Sensing of Environment, 2012, 126, 136-147.	11.0	40
177	Greenhouse gas fluxes in a drained peatland forest during spring frost-thaw event. Biogeosciences, 2010, 7, 1715-1727.	3.3	39
178	Do the energy fluxes and surface conductance of boreal coniferous forests in Europe scale with leaf area?. Global Change Biology, 2016, 22, 4096-4113.	9.5	39
179	Experimental validation of footprint models for eddy covariance CO2 flux measurements above grassland by means of natural and artificial tracers. Agricultural and Forest Meteorology, 2017, 242, 75-84.	4.8	39
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