Ray Leuning

List of Publications by Year
in descending order

47 papers	5,978 citations	87888 38 h-index	243625 44 g-index
48 all docs	48 docs citations	48 times ranked	5970 citing authors

#	Article	IF	Citations
1	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. Scientific Data, 2020, 7, 225.	5.3	646
2	Regional evaporation estimates from flux tower and MODIS satellite data. Remote Sensing of Environment, 2007, 106, 285-304.	11.0	623
3	Reflections on the surface energy imbalance problem. Agricultural and Forest Meteorology, 2012, 156, 65-74.	4.8	400
4	A simple surface conductance model to estimate regional evaporation using MODIS leaf area index and the Penman–Monteith equation. Water Resources Research, 2008, 44, .	4.2	351
5	Carbon and water fluxes over a temperate Eucalyptus forest and a tropical wet/dry savanna in Australia: measurements and comparison with MODIS remote sensing estimates. Agricultural and Forest Meteorology, 2005, 129, 151-173.	4.8	322
6	Scaling of potential evapotranspiration with MODIS data reproduces flux observations and catchment water balance observations across Australia. Journal of Hydrology, 2009, 369, 107-119.	5.4	216
7	The relative merits of open- and closed-path analysers for measurement of eddy fluxes. Global Change Biology, 1996, 2, 241-253.	9.5	188
8	Carbon dioxide and methane fluxes from an intermittently flooded paddy field. Agricultural and Forest Meteorology, 2000, 102, 287-303.	4.8	176
9	Diagnosing errors in a land surface model (CABLE) in the time and frequency domains. Journal of Geophysical Research, 2011, 116, .	3.3	172
10	Parameter estimation in surface exchange models using nonlinear inversion: how many parameters can we estimate and which measurements are most useful?. Global Change Biology, 2001, 7, 495-510.	9.5	164
11	An introduction to the Australian and New Zealand flux tower network – OzFlux. Biogeosciences, 2016, 13, 5895-5916.	3.3	159
12	Evaluating the Performance of Land Surface Models. Journal of Climate, 2008, 21, 5468-5481.	3.2	154
13	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
14	Scaling to a common temperature improves the correlation between the photosynthesis parameters J_{max} and V_{cmax}. Journal of Experimental Botany, 1997, 48, 345-347.	4.8	141
15	Climate control of terrestrial carbon exchange across biomes and continents. Environmental Research Letters, 2010, 5, 034007.	5.2	137
16	Using long–term water balances to parameterize surface conductances and calculate evaporation at 0.05° spatial resolution. Water Resources Research, 2010, 46, .	4.2	135
17	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
18	Evaluation of optical remote sensing to estimate actual evapotranspiration and canopy conductance. Remote Sensing of Environment, 2013, 129, 250-261.	11.0	119

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19	$\delta^{13}C$ of organic matter transported from the leaves to the roots in Eucalyptus delegatensis: short-term variations and relation to respired CO_2. Functional Plant Biology, 2007, 34, 692.	2.1	113
20	Nocturnal carbon efflux: reconciliation of eddy covariance and chamber measurements using an alternative to the u.-threshold filtering technique. Tellus, Series B: Chemical and Physical Meteorology, 2007, 59, 397-403.	1.6	113
21	Air and biomass heat storage fluxes in a forest canopy: Calculation within a soil vegetation atmosphere transfer model. Agricultural and Forest Meteorology, 2007, 147, 125-139.	4.8	100
22	Estimating nocturnal ecosystem respiration from the vertical turbulent flux and change in storage of CO_2. Agricultural and Forest Meteorology, 2009, 149, 1919-1930.	4.8	91
23	Decadal Trends in Evaporation from Global Energy and Water Balances. Journal of Hydrometeorology, 2012, 13, 379-391.	1.9	89
24	The correct form of the Webb, Pearman and Leuning equation for eddy fluxes of trace gases in steady and non-steady state, horizontally homogeneous flows. Boundary-Layer Meteorology, 2007, 123, 263-267.	2.3	84
25	Global variation of transpiration and soil evaporation and the role of their major climate drivers. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6868-6881.	3.3	77
26	The Eddy Covariance Method. , 2012, , 1-19.		73
27	The utility of the eddy covariance techniques as a tool in carbon accounting: tropical savanna as a case study. Australian Journal of Botany, 2005, 53, 663.	0.6	69
28	Improving evapotranspiration estimates in Mediterranean drylands: The role of soil evaporation. Water Resources Research, 2013, 49, 6572-6586.	4.2	64
29	Measurement of horizontal and vertical advection of CO_2 within a forest canopy. Agricultural and Forest Meteorology, 2008, 148, 1777-1797.	4.8	61
30	Documenting improvement in leaf area index estimates from MODIS using hemispherical photos for Australian savannas. Agricultural and Forest Meteorology, 2011, 151, 1453-1461.	4.8	56
31	The fundamental equation of eddy covariance and its application in flux measurements. Agricultural and Forest Meteorology, 2012, 152, 135-148.	4.8	56
32	The Turbulent Lagrangian Time Scale in Forest Canopies Constrained by Fluxes, Concentrations and Source Distributions. Boundary-Layer Meteorology, 2009, 130, 209-228.	2.3	54
33	Application of an alternative method to derive reliable estimates of nighttime respiration from eddy covariance measurements in moderately complex topography. Agricultural and Forest Meteorology, 2008, 148, 1174-1180.	4.8	53
34	Inferring terrestrial photosynthetic light use efficiency of temperate ecosystems from space. Journal of Geophysical Research, 2011, 116, .	3.3	53
35	SPECIAL—Savanna Patterns of Energy and Carbon Integrated across the Landscape. Bulletin of the American Meteorological Society, 2011, 92, 1467-1485.	3.3	52
36	Decoupling of air flow above and in plant canopies and gravity waves affect micrometeorological estimates of net scalar exchange. Agricultural and Forest Meteorology, 2011, 151, 927-933.	4.8	48

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37	Testing Lagrangian atmospheric dispersion modelling to monitor CO_2 and CH_4 leakage from geosequestration. Atmospheric Environment, 2009, 43, 2602-2611.	4.1	46
38	Global vegetation gross primary production estimation using satellite-derived light-use efficiency and canopy conductance. Remote Sensing of Environment, 2015, 163, 206-216.	11.0	43
39	A multi-angle spectrometer for automatic measurement of plant canopy reflectance spectra. Remote Sensing of Environment, 2006, 103, 236-245.	11.0	41
40	Modelling net ecosystem carbon and water exchange of a temperate Eucalyptus delegatensis forest using multiple constraints. Agricultural and Forest Meteorology, 2007, 145, 48-68.	4.8	38
41	Atmospheric Tomography: A Bayesian Inversion Technique for Determining the Rate and Location of Fugitive Emissions. Environmental Science & Technology, 2012, 46, 1739-1746.	10.0	33
42	Neural Error Regression Diagnosis (NERD): A Tool for Model Bias Identification and Prognostic Data Assimilation. Journal of Hydrometeorology, 2006, 7, 160-177.	1.9	31
43	Measurements of Trace Gas Fluxes in the Atmosphere Using Eddy Covariance: WPL Corrections Revisited. , 2004, , 119-132.		24
44	Locating and quantifying greenhouse gas emissions at a geological CO_2 storage site using atmospheric modeling and measurements. Journal of Geophysical Research D: Atmospheres, 2014, 119, 10,959-10,979.	3.3	22
45	Incorporation of a soil water modifier into MODIS predictions of temperate Douglas-fir gross primary productivity: Initial model development. Agricultural and Forest Meteorology, 2007, 147, 99-109.	4.8	16
46	Atmospheric tomography to locate CO_2 leakage at storage sites. Energy Procedia, 2011, 4, 3502-3509.	1.8	7
47	Ions and Charged Aerosol Particles in a Native Australian Eucalypt Forest. , 2007, , 902-905.		1