Jianwu Tang

List of Publications by Year
in descending order

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120	11,111	36203	30848
papers	citations	51 h-index	102 g-index

127	127	127	12049
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reduction of forest soil respiration in response to nitrogen deposition. Nature Geoscience, 2010, 3, 315-322.	5.4	1,254
2	CO₂ balance of boreal, temperate, and tropical forests derived from a global database. Global Change Biology, 2007, 13, 2509-2537.	4.2	863
3	Soil warming, carbonâ€“nitrogen interactions, and forest carbon budgets. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9508-9512.	3.3	459
4	Tree photosynthesis modulates soil respiration on a diurnal time scale. Global Change Biology, 2005, 11, 1298-1304.	4.2	430
5	Solarâ€induced chlorophyll fluorescence that correlates with canopy photosynthesis on diurnal and seasonal scales in a temperate deciduous forest. Geophysical Research Letters, 2015, 42, 2977-2987.	1.5	397
6	How soil moisture, rain pulses, and growth alter the response of ecosystem respiration to temperature. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	1.9	380
7	Temperature response of soil respiration largely unaltered with experimental warming. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13797-13802.	3.3	308
8	A meta-analysis of 1,119 manipulative experiments on terrestrial carbon-cycling responses to global change. Nature Ecology and Evolution, 2019, 3, 1309-1320.	3.4	304
9	Assessing soil CO2 efflux using continuous measurements of CO2 profiles in soils with small solid-state sensors. Agricultural and Forest Meteorology, 2003, 118, 207-220.	1.9	285
10	Spatialâ€“temporal variation in soil respiration in an oakâ€“grass savanna ecosystem in California and its partitioning into autotrophic and heterotrophic components. Biogeochemistry, 2005, 73, 183-207.	1.7	259
11	Soil respiration under climate warming: differential response of heterotrophic and autotrophic respiration. Global Change Biology, 2014, 20, 3229-3237.	4.2	239
12	Emerging opportunities and challenges in phenology: a review. Ecosphere, 2016, 7, e01436.	1.0	225
13	Global patterns and substrateâ€based mechanisms of theÂterrestrial nitrogen cycle. Ecology Letters, 2016, 19, 697-709.	3.0	192
14	Model-based analysis of the relationship between sun-induced chlorophyll fluorescence and gross primary production for remote sensing applications. Remote Sensing of Environment, 2016, 187, 145-155.	4.6	185
15	Early stage litter decomposition across biomes. Science of the Total Environment, 2018, 628-629, 1369-1394.	3.9	177
16	Ecosystemâ€level controls on rootâ€rhizosphere respiration. New Phytologist, 2013, 199, 339-351.	3.5	175
17	Forest thinning and soil respiration in a ponderosa pine plantation in the Sierra Nevada. Tree Physiology, 2005, 25, 57-66.	1.4	160
18	Continuous measurements of soil respiration with and without roots in a ponderosa pine plantation in the Sierra Nevada Mountains. Agricultural and Forest Meteorology, 2005, 132, 212-227.	1.9	139

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19	Restoring tides to reduce methane emissions in impounded wetlands: A new and potent Blue Carbon climate change intervention. Scientific Reports, 2017, 7, 11914.	1.6	138
20	Heterotrophic respiration in disturbed forests: A review with examples from North America. Journal of Geophysical Research, 2011, 116, .	3.3	137
21	Chlorophyll fluorescence tracks seasonal variations of photosynthesis from leaf to canopy in a temperate forest. Global Change Biology, 2017, 23, 2874-2886.	4.2	135
22	Global blue carbon accumulation in tidal wetlands increases with climate change. National Science Review, 2021, 8, nwaa296.	4.6	132
23	How switches and lags in biophysical regulators affect spatial-temporal variation of soil respiration in an oak-grass savanna. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	130
24	Simulating the impacts of disturbances on forest carbon cycling in North America: Processes, data, models, and challenges. Journal of Geophysical Research, 2011, 116, .	3.3	129
25	Seasonal variability of multiple leaf traits captured by leaf spectroscopy at two temperate deciduous forests. Remote Sensing of Environment, 2016, 179, 1-12.	4.6	121
26	Looking deeper into the soil: biophysical controls and seasonal lags of soil CO₂ production and efflux. Ecological Applications, 2010, 20, 1569-1582.	1.8	120
27	Short-term nitrogen additions can shift a coastal wetland from a sink to a source of N2O. Atmospheric Environment, 2011, 45, 4390-4397.	1.9	117
28	Beyond leaf color: Comparing cameraâ€based phenological metrics with leaf biochemical, biophysical, and spectral properties throughout the growing season of a temperate deciduous forest. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 181-191.	1.3	115
29	Steeper declines in forest photosynthesis than respiration explain age-driven decreases in forest growth. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8856-8860.	3.3	114
30	Influences of recovery from clear-cut, climate variability, and thinning on the carbon balance of a young ponderosa pine plantation. Agricultural and Forest Meteorology, 2005, 130, 207-222.	1.9	112
31	Sap flux-upscaled canopy transpiration, stomatal conductance, and water use efficiency in an old growth forest in the Great Lakes region of the United States. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	108
32	Biophysical control of whole tree transpiration under an urban environment in Northern China. Journal of Hydrology, 2011, 402, 388-400.	2.3	108
33	Influence of vegetation and seasonal forcing on carbon dioxide fluxes across the Upper Midwest, USA: Implications for regional scaling. Agricultural and Forest Meteorology, 2008, 148, 288-308.	1.9	106
34	Diel patterns of autotrophic and heterotrophic respiration among phenological stages. Global Change Biology, 2013, 19, 1151-1159.	4.2	106
35	Soil respiration at mean annual temperature predicts annual total across vegetation types and biomes. Biogeosciences, 2010, 7, 2147-2157.	1.3	99
36	Ecosystem respiration and its components in an old-growth forest in the Great Lakes region of the United States. Agricultural and Forest Meteorology, 2008, 148, 171-185.	1.9	91

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37	Soil carbon fluxes and stocks in a Great Lakes forest chronosequence. Global Change Biology, 2009, 15, 145-155.	4.2	91
38	Greening China Naturally. Ambio, 2011, 40, 828-831.	2.8	90
39	Conversion of coastal wetlands, riparian wetlands, and peatlands increases greenhouse gas emissions: A global metaâ€analysis. Global Change Biology, 2020, 26, 1638-1653.	4.2	89
40	The value of soil respiration measurements for interpreting and modeling terrestrial carbon cycling. Plant and Soil, 2017, 413, 1-25.	1.8	81
41	Foliar phosphorus fractions reveal how tropical plants maintain photosynthetic rates despite low soil phosphorus availability. Functional Ecology, 2019, 33, 503-513.	1.7	80
42	Regionalâ€scale phenology modeling based on meteorological records and remote sensing observations. Journal of Geophysical Research, 2012, 117, .	3.3	75
43	Influences of canopy photosynthesis and summer rain pulses on root dynamics and soil respiration in a young ponderosa pine forest. Tree Physiology, 2006, 26, 833-844.	1.4	70
44	Coastal blue carbon: Concept, study method, and the application to ecological restoration. Science China Earth Sciences, 2018, 61, 637-646.	2.3	70
45	Carbon budget of the Harvard Forest Longâ€Term Ecological Research site: pattern, process, and response to global change. Ecological Monographs, 2020, 90, e01423.	2.4	67
46	Seasonal variations of leaf and canopy properties tracked by ground-based NDVI imagery in a temperate forest. Scientific Reports, 2017, 7, 1267.	1.6	64
47	Consequence of altered nitrogen cycles in the coupled human and ecological system under changing climate: The need for long-term and site-based research. Ambio, 2015, 44, 178-193.	2.8	63
48	Potential of solar-induced chlorophyll fluorescence to estimate transpiration in a temperate forest. Agricultural and Forest Meteorology, 2018, 252, 75-87.	1.9	59
49	Tidal wetland resilience to sea level rise increases their carbon sequestration capacity in United States. Nature Communications, 2019, 10, 5434.	5.8	59
50	Effects of experimental warming and nitrogen addition on soil respiration and CH4 fluxes from crop rotations of winter wheatâ€“soybean/fallow. Agricultural and Forest Meteorology, 2015, 207, 38-47.	1.9	58
51	Nutrient limitation of woody debris decomposition in a tropical forest: contrasting effects of N and P addition. Functional Ecology, 2016, 30, 295-304.	1.7	57
52	Root standing crop and chemistry after six years of soil warming in a temperate forest. Tree Physiology, 2011, 31, 707-717.	1.4	52
53	Response of plant nutrient stoichiometry to fertilization varied with plant tissues in a tropical forest. Scientific Reports, 2015, 5, 14605.	1.6	49
54	Intercomparison of sugar maple (Acer saccharum Marsh.) stand transpiration responses to environmental conditions from the Western Great Lakes Region of the United States. Agricultural and Forest Meteorology, 2008, 148, 231-246.	1.9	48

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55	Investigations of relationships among aggregate pore structure, microbial biomass, and soil organic carbon in a Mollisol using combined non-destructive measurements and phospholipid fatty acid analysis. Soil and Tillage Research, 2019, 185, 94-101.	2.6	48
56	Nitrous oxide (N2O) emissions in response to increasing fertilizer addition in maize (Zea mays L.) agriculture in western Kenya. Nutrient Cycling in Agroecosystems, 2014, 100, 177-187.	1.1	47
57	Environmental Controls, Emergent Scaling, and Predictions of Greenhouse Gas (GHG) Fluxes in Coastal Salt Marshes. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2234-2256.	1.3	47
58	Soil CO₂ efflux of a larch forest in northern Japan. Biogeosciences, 2010, 7, 3447-3457.	1.3	46
59	Carbon dioxide fluxes reflect plant zonation and belowground biomass in a coastal marsh. Ecosphere, 2016, 7, e01560.	1.0	46
60	Extreme rainfall and snowfall alter responses of soil respiration to nitrogen fertilization: a 3â€year field experiment. Global Change Biology, 2017, 23, 3403-3417.	4.2	45
61	Comparison of total emitted solar-induced chlorophyll fluorescence (SIF) and top-of-canopy (TOC) SIF in estimating photosynthesis. Remote Sensing of Environment, 2020, 251, 112083.	4.6	45
62	Experimental warming-driven soil drying reduced N2O emissions from fertilized crop rotations of winter wheatâ€“soybean/fallow, 2009â€“2014. Agriculture, Ecosystems and Environment, 2016, 219, 71-82.	2.5	42
63	Using long-term ecosystem service and biodiversity data to study the impacts and adaptation options in response to climate change: insights from the global ILTER sites network. Current Opinion in Environmental Sustainability, 2013, 5, 53-66.	3.1	39
64	Tropical forest restoration: Fast resilience of plant biomass contrasts with slow recovery of stable soil C stocks. Functional Ecology, 2017, 31, 2344-2355.	1.7	39
65	Comparison of Phenology Estimated from Reflectance-Based Indices and Solar-Induced Chlorophyll Fluorescence (SIF) Observations in a Temperate Forest Using GPP-Based Phenology as the Standard. Remote Sensing, 2018, 10, 932.	1.8	38
66	Short-term drought response of N2O and CO2 emissions from mesic agricultural soils in the US Midwest. Agriculture, Ecosystems and Environment, 2015, 212, 127-133.	2.5	35
67	Evaluation of laserâ€based spectrometers for greenhouse gas flux measurements in coastal marshes. Limnology and Oceanography: Methods, 2016, 14, 466-476.	1.0	35
68	Impacts of rice varieties and management on yield-scaled greenhouse gas emissions from rice fields in China: A meta-analysis. Biogeosciences, 2014, 11, 3685-3693.	1.3	33
69	Water salinity and inundation control soil carbon decomposition during salt marsh restoration: An incubation experiment. Ecology and Evolution, 2019, 9, 1911-1921.	0.8	33
70	The foliar spray of Rhodopseudomonas palustris grown under Stevia residue extract promotes plant growth via changing soil microbial community. Journal of Soils and Sediments, 2016, 16, 916-923.	1.5	32
71	Traditional symbiotic farming technology in China promotes the sustainability of a flooded rice production system. Sustainability Science, 2017, 12, 155-161.	2.5	30
72	Steering operational synergies in terrestrial observation networks: opportunity for advancing Earth system dynamics modelling. Earth System Dynamics, 2018, 9, 593-609.	2.7	28

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73	Accelerated phosphorus accumulation and acidification of soils under plastic greenhouse condition in four representative organic vegetable cultivation sites. Scientia Horticulturae, 2015, 195, 67-73.	1.7	27
74	Seasonal and interannual variations of carbon exchange over a rice-wheat rotation system on the North China Plain. Advances in Atmospheric Sciences, 2015, 32, 1365-1380.	1.9	27
75	Opportunities and challenges of applications of satellite-derived sun-induced fluorescence at relatively high spatial resolution. Science of the Total Environment, 2018, 619-620, 649-653.	3.9	26
76	Stover retention rather than no-till decreases the global warming potential of rainfed continuous maize cropland. Field Crops Research, 2018, 219, 14-23.	2.3	25
77	Phosphorus Availability and Sorption as Affected by Longâ€Term Fertilization. Agronomy Journal, 2014, 106, 1583-1592.	0.9	22
78	Relationship between leaf physiologic traits and canopy color indices during the leaf expansion period in an oak forest. Ecosphere, 2015, 6, art259.	1.0	22
79	ChinaSpec: A Network for Longâ€Term Groundâ€Based Measurements of Solarâ€Induced Fluorescence in China. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006042.	1.3	22
80	Ecosystem fluxes of hydrogen: a comparison of flux-gradient methods. Atmospheric Measurement Techniques, 2014, 7, 2787-2805.	1.2	20
81	Ecotypic differences in the phenology of the tundra species Eriophorum vaginatum reflect sites of origin. Ecology and Evolution, 2017, 7, 9775-9786.	0.8	19
82	Enhanced Carbon Uptake and Reduced Methane Emissions in a Newly Restored Wetland. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005222.	1.3	18
83	Seasonal patterns of canopy photosynthesis captured by remotely sensed sun-induced fluorescence and vegetation indexes in mid-to-high latitude forests: A cross-platform comparison. Science of the Total Environment, 2018, 644, 439-451.	3.9	17
84	Effect of growth temperature on photosynthetic capacity and respiration in three ecotypes of Eriophorum vaginatum. Ecology and Evolution, 2018, 8, 3711-3725.	0.8	16
85	Differential responses of ecotypes to climate in a ubiquitous Arctic sedge: implications for future ecosystem C cycling. New Phytologist, 2019, 223, 180-192.	3.5	16
86	Environmental controls on light inhibition of respiration and leaf and canopy daytime carbon exchange in a temperate deciduous forest. Tree Physiology, 2018, 38, 1886-1902.	1.4	15
87	External carbon addition increases nitrate removal and decreases nitrous oxide emission in a restored wetland. Ecological Engineering, 2019, 138, 200-208.	1.6	15
88	Plant biomass and rates of carbon dioxide uptake are enhanced by successful restoration of tidal connectivity in salt marshes. Science of the Total Environment, 2021, 750, 141566.	3.9	15
89	Ecosystem fluxes of hydrogen in a midâ€latitude forest driven by soil microorganisms and plants. Global Change Biology, 2017, 23, 906-919.	4.2	14
90	A Robust Calibration Method for Continentalâ€Scale Soil Water Content Measurements. Vadose Zone Journal, 2018, 17, 1-19.	1.3	14

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91	Enhancement of nitrate removal at the sedimentâ€“water interface by carbon addition plus vertical mixing. Chemosphere, 2015, 136, 305-310.	4.2	13
92	Using canopy greenness index to identify leaf ecophysiological traits during the foliar senescence in an oak forest. Ecosphere, 2018, 9, e02337.	1.0	12
93	Meteorological controls on evapotranspiration over a coastal salt marsh ecosystem under tidal influence. Agricultural and Forest Meteorology, 2019, 279, 107755.	1.9	12
94	Advantage of multi-band solar-induced chlorophyll fluorescence to derive canopy photosynthesis in a temperate forest. Agricultural and Forest Meteorology, 2019, 279, 107691.	1.9	12
95	Integrating cover crops with chicken grazing to improve soil nitrogen in rice fields and increase economic output. Science of the Total Environment, 2020, 713, 135218.	3.9	12
96	Impoundment increases methane emissions in Phragmitesâ€invaded coastal wetlands. Global Change Biology, 2022, 28, 4539-4557.	4.2	12
97	Aggregate-Associated Organic Carbon and Nitrogen Impacted by the Long-Term Application of Fertilizers, Rice Straw, and Pig Manure. Soil Science, 2014, 179, 522-528.	0.9	10
98	Soil Warming Accelerates Biogeochemical Silica Cycling in a Temperate Forest. Frontiers in Plant Science, 2019, 10, 1097.	1.7	10
99	Biogenic silica accumulation varies across tussock tundra plant functional type. Functional Ecology, 2017, 31, 2177-2187.	1.7	10
100	Variability of dissolved organic matter in two coastal wetlands along the Changjiang River Estuary: Responses to tidal cycles, seasons, and degradation processes. Science of the Total Environment, 2022, 807, 150993.	3.9	10
101	Building a Global Ecosystem Research Infrastructure to Address Global Grand Challenges for Macrosystem Ecology. Earth's Future, 2022, 10, .	2.4	10
102	Aerial photography based census of AdÃ©lie Penguin and its application in CH4 and N2O budget estimation in Victoria Land, Antarctic. Scientific Reports, 2017, 7, 12942.	1.6	9
103	Contributions of photosynthetic organs to the seed yield of hybrid rice: the effects of gibberellin application examined by carbon isotope technology. Seed Science and Technology, 2018, 46, 533-546.	0.6	9
104	Arctic River Dissolved and Biogenic Silicon Exportsâ€”Current Conditions and Future Changes With Warming. Global Biogeochemical Cycles, 2020, 34, no.	1.9	9
105	Restoring wetlands outside of the seawalls and to provide clean water habitat. Science of the Total Environment, 2020, 721, 137788.	3.9	8
106	Nitrogen removal by eutrophic coastal wetlands accomplished with CH4 emission reduction. Journal of Cleaner Production, 2022, 332, 130082.	4.6	8
107	Ratoon rice with direct seeding improves soil carbon sequestration in rice fields and increases grain quality. Journal of Environmental Management, 2022, 317, 115374.	3.8	8
108	Temperature sensitivity of soil carbon. , 2019, , 175-208.		7

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109	Tidal effects on ecosystem CO2 exchange in a Phragmites salt marsh of an intertidal shoal. Agricultural and Forest Meteorology, 2020, 292-293, 108108.	1.9	7
110	Effects of cultivation techniques on CH4 emissions, net ecosystem production, and rice yield in a paddy ecosystem. Atmospheric Pollution Research, 2019, 10, 274-282.	1.8	6
111	Tidal influence on the relationship between solar-induced chlorophyll fluorescence and canopy photosynthesis in a coastal salt marsh. Remote Sensing of Environment, 2022, 270, 112865.	4.6	6
112	Passive experimental warming decouples air and sediment temperatures in a salt marsh. Limnology and Oceanography: Methods, 2018, 16, 640-648.	1.0	5
113	Cover crops and chicken grazing in a winter fallow field improve soil carbon and nitrogen contents and decrease methane emissions. Scientific Reports, 2020, 10, 12607.	1.6	5
114	Responses of root phenology in ecotypes of Eriophorum vaginatum to transplantation and warming in the Arctic. Science of the Total Environment, 2022, 805, 149926.	3.9	5
115	Performance of Solar-Induced Chlorophyll Fluorescence in Estimating Water-Use Efficiency in a Temperate Forest. Remote Sensing, 2018, 10, 796.	1.8	4
116	Intraspecific variation in phenology offers resilience to climate change for Eriophorum vaginatum. Arctic Science, 2022, 8, 935-951.	0.9	4
117	A novel combined recirculating treatment system for intensive marine aquaculture. Aquaculture Research, 2017, 48, 5062-5071.	0.9	3
118	Comparative transcriptomics of an arctic foundation species, tussock cottongrass (Eriophorum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 38	1.6	3
119	Linking Spatial Pattern and Biophysical Parameters of Urban Vegetation by Multitemporal Landsat Imagery. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 1263-1267.	1.4	2
120	Landscape Genomics Provides Evidence of Ecotypic Adaptation and a Barrier to Gene Flow at Treeline for the Arctic Foundation Species Eriophorum vaginatum. Frontiers in Plant Science, 2022, 13, 860439.	1.7	0