

# Jianwu Tang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

118  
papers

8,301  
citations

43  
h-index

90  
g-index

127  
ext. papers

9,708  
ext. citations

6.6  
avg, IF

5.9  
L-index

#	Paper	IF	Citations
118	Nitrogen removal by eutrophic coastal wetlands accomplished with CH <sub>4</sub> emission reduction. <i>Journal of Cleaner Production</i> , <b>2022</b> , 332, 130082	10.3	0
117	Tidal influence on the relationship between solar-induced chlorophyll fluorescence and canopy photosynthesis in a coastal salt marsh. <i>Remote Sensing of Environment</i> , <b>2022</b> , 270, 112865	13.2	2
116	Responses of root phenology in ecotypes of <i>Eriophorum vaginatum</i> to transplantation and warming in the Arctic. <i>Science of the Total Environment</i> , <b>2022</b> , 805, 149926	10.2	0
115	Landscape Genomics Provides Evidence of Ecotypic Adaptation and a Barrier to Gene Flow at Treeline for the Arctic Foundation Species .. <i>Frontiers in Plant Science</i> , <b>2022</b> , 13, 860439	6.2	
114	Building a Global Ecosystem Research Infrastructure to Address Global Grand Challenges for Macro-system Ecology. <i>Earth's Future</i> , <b>2022</b> , 10,	7.9	1
113	Global blue carbon accumulation in tidal wetlands increases with climate change. <i>National Science Review</i> , <b>2021</b> , 8, nwaa296	10.8	31
112	Variability of dissolved organic matter in two coastal wetlands along the Changjiang River Estuary: Responses to tidal cycles, seasons, and degradation processes. <i>Science of the Total Environment</i> , <b>2021</b> , 150993	10.2	0
111	ChinaSpec: A Network for Long-Term Ground-Based Measurements of Solar-Induced Fluorescence in China. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2021</b> , 126, e2020JG006042	3.7	5
110	Plant biomass and rates of carbon dioxide uptake are enhanced by successful restoration of tidal connectivity in salt marshes. <i>Science of the Total Environment</i> , <b>2021</b> , 750, 141566	10.2	4
109	Comparative transcriptomics of an arctic foundation species, tussock cottongrass ( <i>Eriophorum vaginatum</i> ), during an extreme heat event. <i>Scientific Reports</i> , <b>2020</b> , 10, 8990	4.9	3
108	Restoring wetlands outside of the seawalls and to provide clean water habitat. <i>Science of the Total Environment</i> , <b>2020</b> , 721, 137788	10.2	3
107	Arctic River Dissolved and Biogenic Silicon Exports: Current Conditions and Future Changes With Warming. <i>Global Biogeochemical Cycles</i> , <b>2020</b> , 34, no	5.9	5
106	Enhanced Carbon Uptake and Reduced Methane Emissions in a Newly Restored Wetland. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2020</b> , 125, e2019JG005222	3.7	5
105	Conversion of coastal wetlands, riparian wetlands, and peatlands increases greenhouse gas emissions: A global meta-analysis. <i>Global Change Biology</i> , <b>2020</b> , 26, 1638-1653	11.4	37
104	Integrating cover crops with chicken grazing to improve soil nitrogen in rice fields and increase economic output. <i>Science of the Total Environment</i> , <b>2020</b> , 713, 135218	10.2	4
103	Comparison of total emitted solar-induced chlorophyll fluorescence (SIF) and top-of-canopy (TOC) SIF in estimating photosynthesis. <i>Remote Sensing of Environment</i> , <b>2020</b> , 251, 112083	13.2	13
102	Tidal effects on ecosystem CO <sub>2</sub> exchange in a <i>Phragmites</i> salt marsh of an intertidal shoal. <i>Agricultural and Forest Meteorology</i> , <b>2020</b> , 292-293, 108108	5.8	2

101	Carbon budget of the Harvard Forest Long-Term Ecological Research site: pattern, process, and response to global change. <i>Ecological Monographs</i> , <b>2020</b> , 90, e01423	9	26
100	Cover crops and chicken grazing in a winter fallow field improve soil carbon and nitrogen contents and decrease methane emissions. <i>Scientific Reports</i> , <b>2020</b> , 10, 12607	4.9	2
99	External carbon addition increases nitrate removal and decreases nitrous oxide emission in a restored wetland. <i>Ecological Engineering</i> , <b>2019</b> , 138, 200-208	3.9	9
98	Soil Warming Accelerates Biogeochemical Silica Cycling in a Temperate Forest. <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 1097	6.2	7
97	Advantage of multi-band solar-induced chlorophyll fluorescence to derive canopy photosynthesis in a temperate forest. <i>Agricultural and Forest Meteorology</i> , <b>2019</b> , 279, 107691	5.8	6
96	Temperature sensitivity of soil carbon <b>2019</b> , 175-208		7
95	Differential responses of ecotypes to climate in a ubiquitous Arctic sedge: implications for future ecosystem C cycling. <i>New Phytologist</i> , <b>2019</b> , 223, 180-192	9.8	9
94	Water salinity and inundation control soil carbon decomposition during salt marsh restoration: An incubation experiment. <i>Ecology and Evolution</i> , <b>2019</b> , 9, 1911-1921	2.8	15
93	Effects of cultivation techniques on CH <sub>4</sub> emissions, net ecosystem production, and rice yield in a paddy ecosystem. <i>Atmospheric Pollution Research</i> , <b>2019</b> , 10, 274-282	4.5	4
92	A meta-analysis of 1,119 manipulative experiments on terrestrial carbon-cycling responses to global change. <i>Nature Ecology and Evolution</i> , <b>2019</b> , 3, 1309-1320	12.3	150
91	Meteorological controls on evapotranspiration over a coastal salt marsh ecosystem under tidal influence. <i>Agricultural and Forest Meteorology</i> , <b>2019</b> , 279, 107755	5.8	6
90	Tidal wetland resilience to sea level rise increases their carbon sequestration capacity in United States. <i>Nature Communications</i> , <b>2019</b> , 10, 5434	17.4	26
89	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. <i>Soil and Tillage Research</i> , <b>2019</b> , 185, 94-101	6.5	25
88	Foliar phosphorus fractions reveal how tropical plants maintain photosynthetic rates despite low soil phosphorus availability. <i>Functional Ecology</i> , <b>2019</b> , 33, 503-513	5.6	42
87	Potential of solar-induced chlorophyll fluorescence to estimate transpiration in a temperate forest. <i>Agricultural and Forest Meteorology</i> , <b>2018</b> , 252, 75-87	5.8	35
86	Early stage litter decomposition across biomes. <i>Science of the Total Environment</i> , <b>2018</b> , 628-629, 1369-1394	4.2	117
85	Coastal blue carbon: Concept, study method, and the application to ecological restoration. <i>Science China Earth Sciences</i> , <b>2018</b> , 61, 637-646	4.6	30
84	Effect of growth temperature on photosynthetic capacity and respiration in three ecotypes of. <i>Ecology and Evolution</i> , <b>2018</b> , 8, 3711-3725	2.8	12

83	Stover retention rather than no-till decreases the global warming potential of rainfed continuous maize cropland. <i>Field Crops Research</i> , <b>2018</b> , 219, 14-23	5.5	18
82	Using canopy greenness index to identify leaf ecophysiological traits during the foliar senescence in an oak forest. <i>Ecosphere</i> , <b>2018</b> , 9, e02337	3.1	8
81	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. <i>Remote Sensing</i> , <b>2018</b> , 10, 932	5	20
80	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. <i>Science of the Total Environment</i> , <b>2018</b> , 644, 439-451	10.2	10
79	Opportunities and challenges of applications of satellite-derived sun-induced fluorescence at relatively high spatial resolution. <i>Science of the Total Environment</i> , <b>2018</b> , 619-620, 649-653	10.2	21
78	A Robust Calibration Method for Continental-Scale Soil Water Content Measurements. <i>Vadose Zone Journal</i> , <b>2018</b> , 17, 1-19	2.7	8
77	Contributions of photosynthetic organs to the seed yield of hybrid rice: the effects of gibberellin application examined by carbon isotope technology. <i>Seed Science and Technology</i> , <b>2018</b> , 46, 533-546	0.6	6
76	Environmental controls on light inhibition of respiration and leaf and canopy daytime carbon exchange in a temperate deciduous forest. <i>Tree Physiology</i> , <b>2018</b> , 38, 1886-1902	4.2	8
75	Passive experimental warming decouples air and sediment temperatures in a salt marsh. <i>Limnology and Oceanography: Methods</i> , <b>2018</b> , 16, 640-648	2.6	2
74	Steering operational synergies in terrestrial observation networks: opportunity for advancing Earth system dynamics modelling. <i>Earth System Dynamics</i> , <b>2018</b> , 9, 593-609	4.8	23
73	Performance of Solar-Induced Chlorophyll Fluorescence in Estimating Water-Use Efficiency in a Temperate Forest. <i>Remote Sensing</i> , <b>2018</b> , 10, 796	5	3
72	Environmental Controls, Emergent Scaling, and Predictions of Greenhouse Gas (GHG) Fluxes in Coastal Salt Marshes. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2018</b> , 123, 2234-2256	3.7	23
71	Extreme rainfall and snowfall alter responses of soil respiration to nitrogen fertilization: a 3-year field experiment. <i>Global Change Biology</i> , <b>2017</b> , 23, 3403-3417	11.4	28
70	Tropical forest restoration: Fast resilience of plant biomass contrasts with slow recovery of stable soil C stocks. <i>Functional Ecology</i> , <b>2017</b> , 31, 2344-2355	5.6	25
69	A novel combined recirculating treatment system for intensive marine aquaculture. <i>Aquaculture Research</i> , <b>2017</b> , 48, 5062-5071	1.9	3
68	Chlorophyll fluorescence tracks seasonal variations of photosynthesis from leaf to canopy in a temperate forest. <i>Global Change Biology</i> , <b>2017</b> , 23, 2874-2886	11.4	88
67	Aerial photography based census of Adèle Penguin and its application in CH and NO budget estimation in Victoria Land, Antarctic. <i>Scientific Reports</i> , <b>2017</b> , 7, 12942	4.9	7
66	Restoring tides to reduce methane emissions in impounded wetlands: A new and potent Blue Carbon climate change intervention. <i>Scientific Reports</i> , <b>2017</b> , 7, 11914	4.9	86

65	Ecotypic differences in the phenology of the tundra species reflect sites of origin. <i>Ecology and Evolution</i> , <b>2017</b> , 7, 9775-9786	2.8	13
64	Seasonal variations of leaf and canopy properties tracked by ground-based NDVI imagery in a temperate forest. <i>Scientific Reports</i> , <b>2017</b> , 7, 1267	4.9	43
63	Traditional symbiotic farming technology in China promotes the sustainability of a flooded rice production system. <i>Sustainability Science</i> , <b>2017</b> , 12, 155-161	6.4	14
62	The value of soil respiration measurements for interpreting and modeling terrestrial carbon cycling. <i>Plant and Soil</i> , <b>2017</b> , 413, 1-25	4.2	60
61	Ecosystem fluxes of hydrogen in a mid-latitude forest driven by soil microorganisms and plants. <i>Global Change Biology</i> , <b>2017</b> , 23, 906-919	11.4	11
60	Biogenic silica accumulation varies across tussock tundra plant functional type. <i>Functional Ecology</i> , <b>2017</b> , 31, 2177-2187	5.6	8
59	Model-based analysis of the relationship between sun-induced chlorophyll fluorescence and gross primary production for remote sensing applications. <i>Remote Sensing of Environment</i> , <b>2016</b> , 187, 145-155	13.2	139
58	Temperature response of soil respiration largely unaltered with experimental warming. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 13797-13802	11.5	206
57	The foliar spray of <i>Rhodopseudomonas palustris</i> grown under <i>Stevia</i> residue extract promotes plant growth via changing soil microbial community. <i>Journal of Soils and Sediments</i> , <b>2016</b> , 16, 916-923	3.4	21
56	Nutrient limitation of woody debris decomposition in a tropical forest: contrasting effects of N and P addition. <i>Functional Ecology</i> , <b>2016</b> , 30, 295-304	5.6	40
55	Experimental warming-driven soil drying reduced N <sub>2</sub> O emissions from fertilized crop rotations of winter wheat-soybean/fallow, 2009-2014. <i>Agriculture, Ecosystems and Environment</i> , <b>2016</b> , 219, 71-82	5.7	25
54	Evaluation of laser-based spectrometers for greenhouse gas flux measurements in coastal marshes. <i>Limnology and Oceanography: Methods</i> , <b>2016</b> , 14, 466-476	2.6	25
53	Carbon dioxide fluxes reflect plant zonation and belowground biomass in a coastal marsh. <i>Ecosphere</i> , <b>2016</b> , 7, e01560	3.1	29
52	Global patterns and substrate-based mechanisms of the terrestrial nitrogen cycle. <i>Ecology Letters</i> , <b>2016</b> , 19, 697-709	10	128
51	Seasonal variability of multiple leaf traits captured by leaf spectroscopy at two temperate deciduous forests. <i>Remote Sensing of Environment</i> , <b>2016</b> , 179, 1-12	13.2	84
50	Emerging opportunities and challenges in phenology: a review. <i>Ecosphere</i> , <b>2016</b> , 7, e01436	3.1	144
49	Enhancement of nitrate removal at the sediment-water interface by carbon addition plus vertical mixing. <i>Chemosphere</i> , <b>2015</b> , 136, 305-10	8.4	12
48	Short-term drought response of N <sub>2</sub> O and CO <sub>2</sub> emissions from mesic agricultural soils in the US Midwest. <i>Agriculture, Ecosystems and Environment</i> , <b>2015</b> , 212, 127-133	5.7	30

47	Solar-induced chlorophyll fluorescence that correlates with canopy photosynthesis on diurnal and seasonal scales in a temperate deciduous forest. <i>Geophysical Research Letters</i> , <b>2015</b> , 42, 2977-2987	4.9	303
46	Effects of experimental warming and nitrogen addition on soil respiration and CH <sub>4</sub> fluxes from crop rotations of winter wheat/soybean/fallow. <i>Agricultural and Forest Meteorology</i> , <b>2015</b> , 207, 38-47	5.8	43
45	Accelerated phosphorus accumulation and acidification of soils under plastic greenhouse condition in four representative organic vegetable cultivation sites. <i>Scientia Horticulturae</i> , <b>2015</b> , 195, 67-73	4.1	17
44	Seasonal and interannual variations of carbon exchange over a rice-wheat rotation system on the North China Plain. <i>Advances in Atmospheric Sciences</i> , <b>2015</b> , 32, 1365-1380	2.9	16
43	Relationship between leaf physiologic traits and canopy color indices during the leaf expansion period in an oak forest. <i>Ecosphere</i> , <b>2015</b> , 6, art259	3.1	16
42	Response of plant nutrient stoichiometry to fertilization varied with plant tissues in a tropical forest. <i>Scientific Reports</i> , <b>2015</b> , 5, 14605	4.9	35
41	Consequence of altered nitrogen cycles in the coupled human and ecological system under changing climate: The need for long-term and site-based research. <i>Ambio</i> , <b>2015</b> , 44, 178-93	6.5	49
40	Soil respiration under climate warming: differential response of heterotrophic and autotrophic respiration. <i>Global Change Biology</i> , <b>2014</b> , 20, 3229-37	11.4	177
39	Steeper declines in forest photosynthesis than respiration explain age-driven decreases in forest growth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 8856-8860	11.5	79
38	Phosphorus Availability and Sorption as Affected by Long-Term Fertilization. <i>Agronomy Journal</i> , <b>2014</b> , 106, 1583-1592	2.2	12
37	Impacts of rice varieties and management on yield-scaled greenhouse gas emissions from rice fields in China: A meta-analysis. <i>Biogeosciences</i> , <b>2014</b> , 11, 3685-3693	4.6	23
36	Beyond leaf color: Comparing camera-based phenological metrics with leaf biochemical, biophysical, and spectral properties throughout the growing season of a temperate deciduous forest. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2014</b> , 119, 181-191	3.7	95
35	Nitrous oxide (N <sub>2</sub> O) emissions in response to increasing fertilizer addition in maize ( <i>Zea mays</i> L.) agriculture in western Kenya. <i>Nutrient Cycling in Agroecosystems</i> , <b>2014</b> , 100, 177-187	3.3	37
34	Ecosystem fluxes of hydrogen: a comparison of flux-gradient methods. <i>Atmospheric Measurement Techniques</i> , <b>2014</b> , 7, 2787-2805	4	14
33	Aggregate-Associated Organic Carbon and Nitrogen Impacted by the Long-Term Application of Fertilizers, Rice Straw, and Pig Manure. <i>Soil Science</i> , <b>2014</b> , 179, 522-528	0.9	6
32	Linking Spatial Pattern and Biophysical Parameters of Urban Vegetation by Multitemporal Landsat Imagery. <i>IEEE Geoscience and Remote Sensing Letters</i> , <b>2013</b> , 10, 1263-1267	4.1	2
31	Ecosystem-level controls on root-rhizosphere respiration. <i>New Phytologist</i> , <b>2013</b> , 199, 339-51	9.8	140
30	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. <i>Current Opinion in Environmental Sustainability</i> , <b>2013</b> , 5, 53-66	7.2	33

29	Diel patterns of autotrophic and heterotrophic respiration among phenological stages. <i>Global Change Biology</i> , <b>2013</b> , 19, 1151-9	11.4	85
28	Regional-scale phenology modeling based on meteorological records and remote sensing observations. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		67
27	Heterotrophic respiration in disturbed forests: A review with examples from North America. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		111
26	Simulating the impacts of disturbances on forest carbon cycling in North America: Processes, data, models, and challenges. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		98
25	Biophysical control of whole tree transpiration under an urban environment in Northern China. <i>Journal of Hydrology</i> , <b>2011</b> , 402, 388-400	6	89
24	Short-term nitrogen additions can shift a coastal wetland from a sink to a source of N <sub>2</sub> O. <i>Atmospheric Environment</i> , <b>2011</b> , 45, 4390-4397	5.3	98
23	Greening China naturally. <i>Ambio</i> , <b>2011</b> , 40, 828-31	6.5	70
22	Soil warming, carbon-nitrogen interactions, and forest carbon budgets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 9508-12	11.5	357
21	Root standing crop and chemistry after six years of soil warming in a temperate forest. <i>Tree Physiology</i> , <b>2011</b> , 31, 707-17	4.2	41
20	Reduction of forest soil respiration in response to nitrogen deposition. <i>Nature Geoscience</i> , <b>2010</b> , 3, 315-323	12.3	988
19	Soil CO <sub>2</sub> efflux of a larch forest in northern Japan. <i>Biogeosciences</i> , <b>2010</b> , 7, 3447-3457	14.5	38
18	Looking deeper into the soil: biophysical controls and seasonal lags of soil CO <sub>2</sub> production and efflux <b>2010</b> , 20, 1569-82		108
17	Soil respiration at mean annual temperature predicts annual total across vegetation types and biomes. <i>Biogeosciences</i> , <b>2010</b> , 7, 2147-2157	4.6	87
16	Soil carbon fluxes and stocks in a Great Lakes forest chronosequence. <i>Global Change Biology</i> , <b>2009</b> , 15, 145-155	11.4	83
15	Influence of vegetation and seasonal forcing on carbon dioxide fluxes across the Upper Midwest, USA: Implications for regional scaling. <i>Agricultural and Forest Meteorology</i> , <b>2008</b> , 148, 288-308	5.8	95
14	Intercomparison of sugar maple ( <i>Acer saccharum</i> Marsh.) stand transpiration responses to environmental conditions from the Western Great Lakes Region of the United States. <i>Agricultural and Forest Meteorology</i> , <b>2008</b> , 148, 231-246	5.8	43
13	Ecosystem respiration and its components in an old-growth forest in the Great Lakes region of the United States. <i>Agricultural and Forest Meteorology</i> , <b>2008</b> , 148, 171-185	5.8	81
12	CO <sub>2</sub> balance of boreal, temperate, and tropical forests derived from a global database. <i>Global Change Biology</i> , <b>2007</b> , 13, 2509-2537	11.4	744

11	Influences of canopy photosynthesis and summer rain pulses on root dynamics and soil respiration in a young ponderosa pine forest. <i>Tree Physiology</i> , <b>2006</b> , 26, 833-44	4.2	66
10	How switches and lags in biophysical regulators affect spatial-temporal variation of soil respiration in an oak-grass savanna. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111, n/a-n/a		116
9	Sap flux-scaled canopy transpiration, stomatal conductance, and water use efficiency in an old growth forest in the Great Lakes region of the United States. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111, n/a-n/a		88
8	Influences of recovery from clear-cut, climate variability, and thinning on the carbon balance of a young ponderosa pine plantation. <i>Agricultural and Forest Meteorology</i> , <b>2005</b> , 130, 207-222	5.8	102
7	Continuous measurements of soil respiration with and without roots in a ponderosa pine plantation in the Sierra Nevada Mountains. <i>Agricultural and Forest Meteorology</i> , <b>2005</b> , 132, 212-227	5.8	131
6	Tree photosynthesis modulates soil respiration on a diurnal time scale. <i>Global Change Biology</i> , <b>2005</b> , 11, 1298-1304	11.4	388
5	Spatial-temporal variation in soil respiration in an oak-grass savanna ecosystem in California and its partitioning into autotrophic and heterotrophic components. <i>Biogeochemistry</i> , <b>2005</b> , 73, 183-207	3.8	237
4	Forest thinning and soil respiration in a ponderosa pine plantation in the Sierra Nevada. <i>Tree Physiology</i> , <b>2005</b> , 25, 57-66	4.2	136
3	How soil moisture, rain pulses, and growth alter the response of ecosystem respiration to temperature. <i>Global Biogeochemical Cycles</i> , <b>2004</b> , 18, n/a-n/a	5.9	308
2	Assessing soil CO <sub>2</sub> efflux using continuous measurements of CO <sub>2</sub> profiles in soils with small solid-state sensors. <i>Agricultural and Forest Meteorology</i> , <b>2003</b> , 118, 207-220	5.8	256
1	Intra-specific variation in phenology offers resilience to climate change for <i>Eriophorum vaginatum</i> . <i>Arctic Science</i> ,	2.2	3