S S Peng

List of Publications by Citations

195	17,205	57	129
papers	citations	h-index	g-index
232	21,956	9.7	6.22
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
195	The impacts of climate change on water resources and agriculture in China. *Nature*, **2010**, 467, 43-51	50.4	2046
194	Rice yields decline with higher night temperature from global warming. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 9971-5	11.5	1484
193	Greening of the Earth and its drivers. *Nature Climate Change*, **2016**, 6, 791-795	21.4	1036
192	Temperature increase reduces global yields of major crops in four independent estimates. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 9326-9331	11.5	886
191	Reduced carbon emission estimates from fossil fuel combustion and cement production in China. *Nature*, **2015**, 524, 335-8	50.4	804
190	The global methane budget 2000–2012. *Earth System Science Data*, **2016**, 8, 697-751	10.5	641
189	Surface urban heat island across 419 global big cities. *Environmental Science & Technology*, **2012**, 46, 696-703	10.3	598
188	The Global Methane Budget 2000–2017. *Earth System Science Data*, **2020**, 12, 1561-1623	10.5	463
187	Declining global warming effects on the phenology of spring leaf unfolding. *Nature*, **2015**, 526, 104-7	50.4	409
186	Detection and attribution of vegetation greening trend in China over the last 30 years. *Global Change Biology*, **2015**, 21, 1601-9	11.4	373
185	Global carbon budget 2014. *Earth System Science Data*, **2015**, 7, 47-85	10.5	367
184	Afforestation in China cools local land surface temperature. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 2915-9	11.5	329
183	Asymmetric effects of daytime and night-time warming on Northern Hemisphere vegetation. *Nature*, **2013**, 501, 88-92	50.4	328
182	Evidence for a weakening relationship between interannual temperature variability and northern vegetation activity. *Nature Communications*, **2014**, 5, 5018	17.4	274
181	Leaf onset in the northern hemisphere triggered by daytime temperature. *Nature Communications*, **2015**, 6, 6911	17.4	261
180	A two-fold increase of carbon cycle sensitivity to tropical temperature variations. *Nature*, **2014**, 506, 212-5	50.4	210
179	Recent change of vegetation growth trend in China. *Environmental Research Letters*, **2011**, 6, 044027	6.2	197

178	Temperature sensitivity of soil respiration in different ecosystems in China. *Soil Biology and Biochemistry*, **2009**, 41, 1008-1014	7.5	187
177	Dependence of the evolution of carbon dynamics in the northern permafrost region on the trajectory of climate change. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 3882-3887	11.5	186
176	Climate mitigation from vegetation biophysical feedbacks during the past three decades. *Nature Climate Change*, **2017**, 7, 432-436	21.4	181
175	The North American Carbon Program Multi-Scale Synthesis and Terrestrial Model Intercomparison Project Part 1: Overview and experimental design. *Geoscientific Model Development*, **2013**, 6, 2121-2133	6.3	164
174	Global patterns and controls of soil organic carbon dynamics as simulated by multiple terrestrial biosphere models: Current status and future directions. *Global Biogeochemical Cycles*, **2015**, 29, 775-792	5.9	159
173	The contribution of China's emissions to global climate forcing. *Nature*, **2016**, 531, 357-61	50.4	145
172	Air temperature optima of vegetation productivity across global biomes. *Nature Ecology and Evolution*, **2019**, 3, 772-779	12.3	128
171	Divergent hydrological response to large-scale afforestation and vegetation greening in China. *Science Advances*, **2018**, 4, eaar4182	14.3	128
170	Gross and net land cover changes in the main plant functional types derived from the annual ESA CCI land cover maps (19922015). *Earth System Science Data*, **2018**, 10, 219-234	10.5	126
169	A simplified, data-constrained approach to estimate the permafrost carbon-climate feedback. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2015**, 373,	3	125
168	Partitioning global land evapotranspiration using CMIP5 models constrained by observations. *Nature Climate Change*, **2018**, 8, 640-646	21.4	123
167	Impact of large-scale climate extremes on biospheric carbon fluxes: An intercomparison based on MsTMIP data. *Global Biogeochemical Cycles*, **2014**, 28, 585-600	5.9	112
166	Uncertainty in the response of terrestrial carbon sink to environmental drivers undermines carbon-climate feedback predictions. *Scientific Reports*, **2017**, 7, 4765	4.9	108
165	Weakening temperature control on the interannual variations of spring carbon uptake across northern lands. *Nature Climate Change*, **2017**, 7, 359-363	21.4	107
164	Extension of the growing season increases vegetation exposure to frost. *Nature Communications*, **2018**, 9, 426	17.4	106
163	Precipitation amount, seasonality and frequency regulate carbon cycling of a semi-arid grassland ecosystem in Inner Mongolia, China: A modeling analysis. *Agricultural and Forest Meteorology*, **2013**, 178-179, 46-55	5.8	102
162	ORCHIDEE-MICT (v8.4.1), a land surface model for the high latitudes: model description and validation. *Geoscientific Model Development*, **2018**, 11, 121-163	6.3	100
161	Global wetland contribution to 20002012 atmospheric methane growth rate dynamics. *Environmental Research Letters*, **2017**, 12, 094013	6.2	97

160	Global forest carbon uptake due to nitrogen and phosphorus deposition from 1850 to 2100. *Global Change Biology*, **2017**, 23, 4854-4872	11.4	95
159	Disentangling climatic and anthropogenic controls on global terrestrial evapotranspiration trends. *Environmental Research Letters*, **2015**, 10, 094008	6.2	93
158	Change in snow phenology and its potential feedback to temperature in the Northern Hemisphere over the last three decades. *Environmental Research Letters*, **2013**, 8, 014008	6.2	91
157	Are ecological gradients in seasonal Q10 of soil respiration explained by climate or by vegetation seasonality?. *Soil Biology and Biochemistry*, **2010**, 42, 1728-1734	7.5	87
156	Global evapotranspiration over the past three decades: estimation based on the water balance equation combined with empirical models. *Environmental Research Letters*, **2012**, 7, 014026	6.2	86
155	Winter soil CO2 efflux and its contribution to annual soil respiration in different ecosystems of a forest-steppe ecotone, north China. *Soil Biology and Biochemistry*, **2010**, 42, 451-458	7.5	86
154	Variability in the sensitivity among model simulations of permafrost and carbon dynamics in the permafrost region between 1960 and 2009. *Global Biogeochemical Cycles*, **2016**, 30, 1015-1037	5.9	83
153	The carbon budget of terrestrial ecosystems in East Asia over the last two decades. *Biogeosciences*, **2012**, 9, 3571-3586	4.6	83
152	Declining snow cover may affect spring phenological trend on the Tibetan Plateau. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, E2854-5	11.5	79
151	A representation of the phosphorus cycle for ORCHIDEE (revision 4520). *Geoscientific Model Development*, **2017**, 10, 3745-3770	6.3	78
150	Five decades of northern land carbon uptake revealed by the interhemispheric CO gradient. *Nature*, **2019**, 568, 221-225	50.4	77
149	Variability and quasi-decadal changes in the methane budget over the period 2000 2012. *Atmospheric Chemistry and Physics*, **2017**, 17, 11135-11161	6.8	69
148	Increasingly Important Role of Atmospheric Aridity on Tibetan Alpine Grasslands. *Geophysical Research Letters*, **2018**, 45, 2852-2859	4.9	65
147	Inventory of anthropogenic methane emissions in mainland China from 1980 to 2010. *Atmospheric Chemistry and Physics*, **2016**, 16, 14545-14562	6.8	64
146	Global patterns and climate drivers of water-use efficiency in terrestrial ecosystems deduced from satellite-based datasets and carbon cycle models. *Global Ecology and Biogeography*, **2016**, 25, 311-323	6.1	63
145	Afforestation neutralizes soil pH. *Nature Communications*, **2018**, 9, 520	17.4	62
144	Lower land-use emissions responsible for increased net land carbon sink during the slow warming period. *Nature Geoscience*, **2018**, 11, 739-743	18.3	62
143	Deceleration of China's human water use and its key drivers. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 7702-7711	11.5	61

142	The influence of local spring temperature variance on temperature sensitivity of spring phenology. *Global Change Biology*, **2014**, 20, 1473-80	11.4	61
141	Change in winter snow depth and its impacts on vegetation in China. *Global Change Biology*, **2010**, 16, no-no	11.4	59
140	A new high-resolution N2O emission inventory for China in 2008. *Environmental Science & Technology*, **2014**, 48, 8538-47	10.3	57
139	Evaluation of an improved intermediate complexity snow scheme in the ORCHIDEE land surface model. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 6064-6079	4.4	57
138	Seasonal responses of terrestrial ecosystem water-use efficiency to climate change. *Global Change Biology*, **2016**, 22, 2165-77	11.4	57
137	Plausible rice yield losses under future climate warming. *Nature Plants*, **2016**, 3, 16202	11.5	55
136	The impacts of climate extremes on the terrestrial carbon cycle: A review. *Science China Earth Sciences*, **2019**, 62, 1551-1563	4.6	54
135	Identification of typical diurnal patterns for clear-sky climatology of surface urban heat islands. *Remote Sensing of Environment*, **2018**, 217, 203-220	13.2	50
134	Seasonally different response of photosynthetic activity to daytime and night-time warming in the Northern Hemisphere. *Global Change Biology*, **2015**, 21, 377-87	11.4	48
133	Age-Related Modulation of the Nitrogen Resorption Efficiency Response to Growth Requirements and Soil Nitrogen Availability in a Temperate Pine Plantation. *Ecosystems*, **2016**, 19, 698-709	3.9	46
132	Major forest changes and land cover transitions based on plant functional types derived from the ESA CCI Land Cover product. *International Journal of Applied Earth Observation and Geoinformation*, **2016**, 47, 30-39	7.3	46
131	Soil moisture and hydrology projections of the permafrost region – a model intercomparison. *Cryosphere*, **2020**, 14, 445-459	5.5	44
130	Testing conceptual and physically based soil hydrology schemes against observations for the Amazon Basin. *Geoscientific Model Development*, **2014**, 7, 1115-1136	6.3	44
129	Velocity of change in vegetation productivity over northern high latitudes. *Nature Ecology and Evolution*, **2017**, 1, 1649-1654	12.3	43
128	Quantifying uncertainties of permafrost carbon–climate feedbacks. *Biogeosciences*, **2017**, 14, 3051-3066	4.6	43
127	Benchmarking the seasonal cycle of CO2 fluxes simulated by terrestrial ecosystem models. *Global Biogeochemical Cycles*, **2015**, 29, 46-64	5.9	42
126	Temporal trade-off between gymnosperm resistance and resilience increases forest sensitivity to extreme drought. *Nature Ecology and Evolution*, **2020**, 4, 1075-1083	12.3	42
125	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. *Biogeosciences*, **2017**, 14, 5053-5067	4.6	42

124	Toward Optimal Integration of terrestrial biosphere models. *Geophysical Research Letters*, **2015**, 42, 4418-4428	4.9	42
123	Revisiting enteric methane emissions from domestic ruminants and their C source signature. *Nature Communications*, **2019**, 10, 3420	17.4	40
122	Field warming experiments shed light on the wheat yield response to temperature in China. *Nature Communications*, **2016**, 7, 13530	17.4	39
121	Modelling the impacts of climate and land use changes on soil water erosion: Model applications, limitations and future challenges. *Journal of Environmental Management*, **2019**, 250, 109403	7.9	38
120	The effects of teleconnections on carbon fluxes of global terrestrial ecosystems. *Geophysical Research Letters*, **2017**, 44, 3209-3218	4.9	36
119	Rapid degradation of permafrost underneath waterbodies in tundra landscapes Toward a representation of thermokarst in land surface models. *Journal of Geophysical Research F: Earth Surface*, **2016**, 121, 2446-2470	3.8	36
118	Terrestrial ecosystem model performance in simulating productivity and its vulnerability to climate change in the northern permafrost region. *Journal of Geophysical Research G: Biogeosciences*, **2017**, 122, 430-446	3.7	35
117	On the causes of trends in the seasonal amplitude of atmospheric CO. *Global Change Biology*, **2018**, 24, 608-616	11.4	35
116	Summer soil moisture regulated by precipitation frequency in China. *Environmental Research Letters*, **2009**, 4, 044012	6.2	34
115	Climate warming from managed grasslands cancels the cooling effect of carbon sinks in sparsely grazed and natural grasslands. *Nature Communications*, **2021**, 12, 118	17.4	34
114	Diagnosing phosphorus limitations in natural terrestrial ecosystems in carbon cycle models. *Earth's Future*, **2017**, 5, 730-749	7.9	33
113	Site-level model intercomparison of high latitude and high altitude soil thermal dynamics in tundra and barren landscapes. *Cryosphere*, **2015**, 9, 1343-1361	5.5	32
112	ORCHIDEE-PEAT (revision 4596), a model for northern peatland CO₂, water, and energy fluxes on daily to annual scales. *Geoscientific Model Development*, **2018**, 11, 497-519	6.3	32
111	Grassland restoration reduces water yield in the headstream region of Yangtze River. *Scientific Reports*, **2017**, 7, 2162	4.9	31
110	Carbon stocks and fluxes in the high latitudes: using site-level data to evaluate Earth system models. *Biogeosciences*, **2017**, 14, 5143-5169	4.6	30
109	Single-leaf and canopy photosynthesis of rice. *Studies in Plant Science*, **2000**, 7, 213-228		30
108	Empirical estimates of regional carbon budgets imply reduced global soil heterotrophic respiration. *National Science Review*, **2021**, 8, nwaa145	10.8	30
107	Global land carbon sink response to temperature and precipitation varies with ENSO phase. *Environmental Research Letters*, **2017**, 12, 064007	6.2	29

106	Improving the dynamics of Northern Hemisphere high-latitude vegetation in the ORCHIDEE ecosystem model. *Geoscientific Model Development*, **2015**, 8, 2263-2283	6.3	29
105	Evaluation of air□oil temperature relationships simulated by land surface models during winter across the permafrost region. *Cryosphere*, **2016**, 10, 1721-1737	5.5	29
104	How have past fire disturbances contributed to the current carbon balance of boreal ecosystems?. *Biogeosciences*, **2016**, 13, 675-690	4.6	29
103	Reducing uncertainties in decadal variability of the global carbon budget with multiple datasets. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 13104-13108	11.5	28
102	Future impacts of climate change on inland Ramsar wetlands. *Nature Climate Change*, **2021**, 11, 45-51	21.4	28
101	Evaluating biases in simulated land surface albedo from CMIP5 global climate models. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 6178-6190	4.4	27
100	Sensitivity of land use change emission estimates to historical land use and land cover mapping. *Global Biogeochemical Cycles*, **2017**, 31, 626-643	5.9	26
99	Attribution of seasonal leaf area index trends in the northern latitudes with "optimally" integrated ecosystem models. *Global Change Biology*, **2017**, 23, 4798-4813	11.4	26
98	The large mean body size of mammalian herbivores explains the productivity paradox during the Last Glacial Maximum. *Nature Ecology and Evolution*, **2018**, 2, 640-649	12.3	25
97	The Effect of Afforestation on Soil Moisture Content in Northeastern China. *PLoS ONE*, **2016**, 11, e0160776	3.6	25
96	Assessment of model estimates of land-atmosphere CO₂ exchange across Northern Eurasia. *Biogeosciences*, **2015**, 12, 4385-4405	4.6	24
95	Decadal trends in the seasonal-cycle amplitude of terrestrial CO2 exchange resulting from the ensemble of terrestrial biosphere models. *Tellus, Series B: Chemical and Physical Meteorology*, **2016**, 68, 28968	3.3	24
94	Temporal response of soil organic carbon after grassland-related land-use change. *Global Change Biology*, **2018**, 24, 4731-4746	11.4	24
93	Increased light-use efficiency in northern terrestrial ecosystems indicated by CO2 and greening observations. *Geophysical Research Letters*, **2016**, 43, 11,339	4.9	23
92	Benchmarking carbon fluxes of the ISIMIP2a biome models. *Environmental Research Letters*, **2017**, 12, 045002	6.2	23
91	Combining livestock production information in a process-based vegetation model to reconstruct the history of grassland management. *Biogeosciences*, **2016**, 13, 3757-3776	4.6	23
90	Representing anthropogenic gross land use change, wood harvest, and forest age dynamics in a global vegetation model ORCHIDEE-MICT v8.4.2. *Geoscientific Model Development*, **2018**, 11, 409-428	6.3	23
89	The weakening relationship between Eurasian spring snow cover and Indian summer monsoon rainfall. *Science Advances*, **2019**, 5, eaau8932	14.3	22

88	Novel Representation of Leaf Phenology Improves Simulation of Amazonian Evergreen Forest Photosynthesis in a Land Surface Model. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2018MS001565	7.1	22
87	Vegetation Functional Properties Determine Uncertainty of Simulated Ecosystem Productivity: A Traceability Analysis in the East Asian Monsoon Region. *Global Biogeochemical Cycles*, **2019**, 33, 668-689	5.9	21
86	Spring snow cover deficit controlled by intraseasonal variability of the surface energy fluxes. *Environmental Research Letters*, **2015**, 10, 024018	6.2	21
85	Root respiration and its relation to nutrient contents in soil and root and EVI among 8 ecosystems, northern China. *Plant and Soil*, **2010**, 333, 391-401	4.2	21
84	Global terrestrial carbon fluxes of 1999-2019 estimated by upscaling eddy covariance data with a random forest. *Scientific Data*, **2020**, 7, 313	8.2	21
83	GOLUM-CNP v1.0: a data-driven modeling of carbon, nitrogen and phosphorus cycles in major terrestrial biomes. *Geoscientific Model Development*, **2018**, 11, 3903-3928	6.3	21
82	The role of northern peatlands in the global carbon cycle for the 21st century. *Global Ecology and Biogeography*, **2020**, 29, 956-973	6.1	20
81	Was the extreme Northern Hemisphere greening in 2015 predictable?. *Environmental Research Letters*, **2017**, 12, 044016	6.2	18
80	Regional patterns of future runoff changes from Earth system models constrained by observation. *Geophysical Research Letters*, **2017**, 44, 5540-5549	4.9	18
79	A global yield dataset for major lignocellulosic bioenergy crops based on field measurements. *Scientific Data*, **2018**, 5, 180169	8.2	17
78	Dominant regions and drivers of the variability of the global land carbon sink across timescales. *Global Change Biology*, **2018**, 24, 3954-3968	11.4	16
77	Temperature sensitivity of soil respiration across multiple time scales in a temperate plantation forest. *Science of the Total Environment*, **2019**, 688, 479-485	10.2	16
76	Simulating soil organic carbon in yedoma deposits during the Last Glacial Maximum in a land surface model. *Geophysical Research Letters*, **2016**, 43, 5133-5142	4.9	16
75	Surface conductance for evapotranspiration of tropical forests: Calculations, variations, and controls. *Agricultural and Forest Meteorology*, **2019**, 275, 317-328	5.8	15
74	Inventory of methane emissions from livestock in China from 1980 to 2013. *Atmospheric Environment*, **2018**, 184, 69-76	5.3	15
73	The Global Methane Budget: 20002012		15
72	Contributions of Climate Change, CO2, Land-Use Change, and Human Activities to Changes in River Flow across 10 Chinese Basins. *Journal of Hydrometeorology*, **2018**, 19, 1899-1914	3.7	15
71	Changing the retention properties of catchments and their influence on runoff under climate change. *Environmental Research Letters*, **2018**, 13, 094019	6.2	15

70	Changes in forest biomass over China during the 2000s and implications for management. *Forest Ecology and Management*, **2015**, 357, 76-83	3.9	14
69	Re-evaluating the 1940s CO₂ plateau. *Biogeosciences*, **2016**, 13, 4877-4897	4.6	14
68	Regional trends and drivers of the global methane budget. *Global Change Biology*, **2022**, 28, 182-200	11.4	14
67	Simulating CH₄ and CO₂ over South and East Asia using the zoomed chemistry transport model LMDz-INCA. *Atmospheric Chemistry and Physics*, **2018**, 18, 9475-9497	6.8	13
66	Broad Consistency Between Satellite and Vegetation Model Estimates of Net Primary Productivity Across Global and Regional Scales. *Journal of Geophysical Research G: Biogeosciences*, **2018**, 123, 3603-3616	3.7	13
65	Emerging negative impact of warming on summer carbon uptake in northern ecosystems. *Nature Communications*, **2018**, 9, 5391	17.4	13
64	Recent Changes in Global Photosynthesis and Terrestrial Ecosystem Respiration Constrained From Multiple Observations. *Geophysical Research Letters*, **2018**, 45, 1058-1068	4.9	12
63	Modelling northern peatland area and carbon dynamics since the Holocene with the ORCHIDEE-PEAT land surface model (SVN r5488). *Geoscientific Model Development*, **2019**, 12, 2961-2982	6.3	12
62	Vapor Pressure Deficit and Sunlight Explain Seasonality of Leaf Phenology and Photosynthesis Across Amazonian Evergreen Broadleaved Forest. *Global Biogeochemical Cycles*, **2021**, 35, e2020GB006893	5.9	12
61	Large historical carbon emissions from cultivated northern peatlands. *Science Advances*, **2021**, 7,	14.3	12
60	Simulated high-latitude soil thermal dynamics during the past 4 decades. *Cryosphere*, **2016**, 10, 179-192	5.5	12
59	ORCHIDEE-MICT-BIOENERGY: an attempt to represent the production of lignocellulosic crops for bioenergy in a global vegetation model. *Geoscientific Model Development*, **2018**, 11, 2249-2272	6.3	12
58	Spatiotemporal variations in the difference between satellite-observed daily maximum land surface temperature and station-based daily maximum near-surface air temperature. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 2254-2268	4.4	11
57	Changes in productivity and carbon storage of grasslands in China under future global warming scenarios of 1.5□C and 2□C. *Journal of Plant Ecology*, **2019**, 12, 804-814	1.7	11
56	The carbon sequestration potential of China's grasslands. *Ecosphere*, **2018**, 9, e02452	3.1	11
55	Impacts of Satellite-Based Snow Albedo Assimilation on Offline and Coupled Land Surface Model Simulations. *PLoS ONE*, **2015**, 10, e0137275	3.7	10
54	The North American Carbon Program Multi-scale synthesis and Terrestrial Model Intercomparison Project □Part 1: Overview and experimental design		10
53	Attribution of Lake Warming in Four Shallow Lakes in the Middle and Lower Yangtze River Basin. *Environmental Science & Technology*, **2019**, 53, 12548-12555	10.3	9

52	Causes of slowing-down seasonal CO amplitude at Mauna Loa. *Global Change Biology*, **2020**, 26, 4462-4477	11.4	9
51	Quantifying the unauthorized lake water withdrawals and their impacts on the water budget of eutrophic lake Dianchi, China. *Journal of Hydrology*, **2018**, 565, 39-48	6	9
50	Multimodel projections and uncertainties of net ecosystem production in China over the twenty-first century. *Science Bulletin*, **2014**, 59, 4681-4691		9
49	Response to Comment on Surface Urban Heat Island Across 419 Global Big Cities *Environmental Science & Technology*, **2012**, 46, 6889-6890	10.3	9
48	Tropical forest soils serve as substantial and persistent methane sinks. *Scientific Reports*, **2019**, 9, 16799	4.9	9
47	Evaluation of ORCHIDEE-MICT-simulated soil moisture over China and impacts of different atmospheric forcing data. *Hydrology and Earth System Sciences*, **2018**, 22, 5463-5484	5.5	9
46	The carbon budget of terrestrial ecosystems in East Asia over the last two decades		8
45	Site-level model intercomparison of high latitude and high altitude soil thermal dynamics in tundra and barren landscapes		8
44	The Key Role of Production Efficiency Changes in Livestock Methane Emission Mitigation. *AGU Advances*, **2021**, 2, e2021AV000391	5.4	8
43	Non-uniform seasonal warming regulates vegetation greening and atmospheric CO 2 amplification over northern lands. *Environmental Research Letters*, **2018**, 13, 124008	6.2	8
42	Evidence and mapping of extinction debts for global forest-dwelling reptiles, amphibians and mammals. *Scientific Reports*, **2017**, 7, 44305	4.9	7
41	Improvement of the Irrigation Scheme in the ORCHIDEE Land Surface Model and Impacts of Irrigation on Regional Water Budgets Over China. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS001770	7.1	7
40	Comment on "Surface urban heat island across 419 global big cities". *Environmental Science & Technology*, **2012**, 46, 6888; author reply 6889-90	10.3	7
39	Stoichiometric models of microbial metabolic limitation in soil systems. *Global Ecology and Biogeography*, **2021**, 30, 2297	6.1	7
38	A warm summer is unlikely to stop transmission of COVID-19 naturally. *GeoHealth*, **2020**, 4, e2020GH000292		6
37	Strong but Intermittent Spatial Covariations in Tropical Land Temperature. *Geophysical Research Letters*, **2019**, 46, 356-364	4.9	6
36	Spatial Pattern and Environmental Drivers of Acid Phosphatase Activity in Europe. *Frontiers in Big Data*, **2019**, 2, 51	2.8	5
35	Fire enhances forest degradation within forest edge zones in Africa. *Nature Geoscience*, **2021**, 14, 479-483	18.3	5

34	Ectomycorrhizal fungi respiration quantification and drivers in three differently-aged larch plantations. *Agricultural and Forest Meteorology*, **2019**, 265, 245-251	5.8	5
33	Global vegetation biomass production efficiency constrained by models and observations. *Global Change Biology*, **2020**, 26, 1474-1484	11.4	5
32	Retention of deposited ammonium and nitrate and its impact on the global forest carbon sink.. *Nature Communications*, **2022**, 13, 880	17.4	5
31	Representing anthropogenic gross land use change, wood harvest and forest age dynamics in a global vegetation model ORCHIDEE-MICT (r4259) **2017**,		4
30	Assessment of model estimates of land□tmosphere CO₂ exchange across Northern Eurasia		4
29	Gross and net land cover changes based on plant functional types derived from the annual ESA CCI land cover maps		4
28	Irrigation, damming, and streamflow fluctuations of the Yellow River. *Hydrology and Earth System Sciences*, **2021**, 25, 1133-1150	5.5	4
27	Wetlands Cool Land Surface Temperature in Tropical Regions but Warm in Boreal Regions. *Remote Sensing*, **2021**, 13, 1439	5	4
26	A Process-Based Model Integrating Remote Sensing Data for Evaluating Ecosystem Services. *Journal of Advances in Modeling Earth Systems*, **2021**, 13, e2020MS002451	7.1	4
25	Long-term linear trends mask phenological shifts. *International Journal of Biometeorology*, **2016**, 60, 1611-1613	3.7	4
24	Mapping global forest biomass and its changes over the first decade of the 21st century. *Science China Earth Sciences*, **2019**, 62, 585-594	4.6	4
23	Recent Slowdown of Anthropogenic Methane Emissions in China Driven by Stabilized Coal Production. *Environmental Science and Technology Letters*, **2021**, 8, 739-746	11	4
22	ORCHIDEE-MICT (revision 4126), a land surface model for the high-latitudes: model description and validation **2017**,		3
21	Simulated high-latitude soil thermal dynamics during the past four decades		3
20	Missed atmospheric organic phosphorus emitted by terrestrial plants, part 2: Experiment of volatile phosphorus. *Environmental Pollution*, **2020**, 258, 113728	9.3	3
19	A comparative study of anthropogenic CH₄ emissions over China based on the ensembles of bottom-up inventories. *Earth System Science Data*, **2021**, 13, 1073-1088	10.5	3
18	Soil moisture seasonality alters vegetation response to drought in the Mongolian Plateau. *Environmental Research Letters*, **2021**, 16, 014050	6.2	3
17	Gross changes in forest area shape the future carbon balance of tropical forests. *Biogeosciences*, **2018**, 15, 91-103	4.6	3

16	A global map of planting years of plantations.. *Scientific Data*, **2022**, 9, 141	8.2	3
15	Relations between bacterial communities and enzyme functions of two paddy soils. *European Journal of Soil Science*, **2018**, 69, 655-665	3.4	2
14	Greenhouse Gas Concentration and Volcanic Eruptions Controlled the Variability of Terrestrial Carbon Uptake Over the Last Millennium. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 1715-1734	7.1	2
13	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations		2
12	Improving the dynamics of northern vegetation in the ORCHIDEE ecosystem model **2015**,		1
11	ORCHIDEE-PEAT (revision 4596), a model for northern peatland CO₂, water and energy fluxes on daily to annual scales **2017**,		1
10	Simulating CH₄ and CO₂ over South and East Asia using the zoomed chemistry transport model LMDzINCA **2017**,		1
9	A strong mitigation scenario maintains climate neutrality of northern peatlands. *One Earth*, **2022**, 5, 86-97	8.1	1
8	Reply to Comment by Rigolot on "Narratives Behind Livestock Methane Mitigation Studies Matter" *AGU Advances*, **2021**, 2, e2021AV000549	5.4	1
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