SÃ¶nke Zaehle

List of Publications by Year
in descending order

174 papers	35,083 citations	8172 76 h-index	4427 172 g-index
282 all docs	282 docs citations	282 times ranked	31978 citing authors

#	Article	IF	Citations
1	Longâ€term ecosystem nitrogen limitation from foliar Î´¹⁵N data and a land surface model. Global Change Biology, 2022, 28, 493-508.	4.2	7
2	Vertically Divergent Responses of SOC Decomposition to Soil Moisture in a Changing Climate. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	1.3	2
3	Are Landâ€Use Change Emissions in Southeast Asia Decreasing or Increasing?. Global Biogeochemical Cycles, 2022, 36, .	1.9	7
4	Are Terrestrial Biosphere Models Fit for Simulating the Global Land Carbon Sink?. Journal of Advances in Modeling Earth Systems, 2022, 14, .	1.3	28
5	Global Carbon Budget 2021. Earth System Science Data, 2022, 14, 1917-2005.	3.7	663
6	Predicting resilience through the lens of competing adjustments to vegetation function. Plant, Cell and Environment, 2022, 45, 2744-2761.	2.8	8
7	Contrasting anatomical and biochemical controls on mesophyll conductance across plant functional types. New Phytologist, 2022, 236, 357-368.	3.5	8
8	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO₂. New Phytologist, 2021, 229, 2413-2445.	3.5	286
9	Plant phenology evaluation of CRESCENDO land surface models â€" Part 1: Start and end of the growing season. Biogeosciences, 2021, 18, 2405-2428.	1.3	19
10	JULES-CN: a coupled terrestrial carbonâ€"nitrogen scheme (JULES vn5.1). Geoscientific Model Development, 2021, 14, 2161-2186.	1.3	32
11	Modelled land use and land cover change emissions â€" a spatio-temporal comparison of different approaches. Earth System Dynamics, 2021, 12, 635-670.	2.7	29
12	Linking global terrestrial CO₂ fluxes and environmental drivers: inferences from the Orbiting Carbon ObservatoryÂ2 satellite and terrestrial biospheric models. Atmospheric Chemistry and Physics, 2021, 21, 6663-6680.	1.9	10
13	Competing effects of nitrogen deposition and ozone exposure on northern hemispheric terrestrial carbon uptake and storage, 1850â€"2099. Biogeosciences, 2021, 18, 3219-3241.	1.3	5
14	Five years of variability in the global carbon cycle: comparing an estimate from the Orbiting Carbon Observatory-2 and process-based models. Environmental Research Letters, 2021, 16, 054041.	2.2	8
15	Dynamic global vegetation models underestimate net CO₂ flux mean and inter-annual variability in dryland ecosystems. Environmental Research Letters, 2021, 16, 094023.	2.2	23
16	The three major axes of terrestrial ecosystem function. Nature, 2021, 598, 468-472.	13.7	99
17	Slowdown of the greening trend in natural vegetation with further rise in atmospheric CO₂. Biogeosciences, 2021, 18, 4985-5010.	1.3	49
18	Vulnerability of European ecosystems to two compound dry and hot summers in 2018 and 2019. Earth System Dynamics, 2021, 12, 1015-1035.	2.7	49

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19	Assessing the representation of the Australian carbon cycle in global vegetation models. Biogeosciences, 2021, 18, 5639-5668.	1.3	21
20	Magnitude and Uncertainty of Nitrous Oxide Emissions From North America Based on Bottomâ€Up and Topâ€Down Approaches: Informing Future Research and National Inventories. Geophysical Research Letters, 2021, 48, e2021GL095264.	1.5	7
21	Mesophyll conductance in land surface models: effects on photosynthesis and transpiration. Plant Journal, 2020, 101, 858-873.	2.8	30
22	Wholeâ€plant optimality predicts changes in leaf nitrogen under variable <scp>CO</scp>₂ and nutrient availability. New Phytologist, 2020, 225, 2331-2346.	3.5	27
23	A comprehensive quantification of global nitrous oxide sources and sinks. Nature, 2020, 586, 248-256.	13.7	814
24	Low phosphorus supply constrains plant responses to elevated CO₂: A metaâ€analysis. Global Change Biology, 2020, 26, 5856-5873.	4.2	37
25	Impacts of extreme summers on European ecosystems: a comparative analysis of 2003, 2010 and 2018. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190507.	1.8	64
26	The European carbon cycle response to heat and drought as seen from atmospheric CO ₂ data for 1999â€“2018. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190506.	1.8	19
27	Organizing principles for vegetation dynamics. Nature Plants, 2020, 6, 444-453.	4.7	95
28	Direct and seasonal legacy effects of the 2018 heat wave and drought on European ecosystem productivity. Science Advances, 2020, 6, eaba2724.	4.7	229
29	Jena Soil Model (JSM v1.0; revision 1934): a microbial soil organic carbon model integrated with nitrogen and phosphorus processes. Geoscientific Model Development, 2020, 13, 783-803.	1.3	29
30	The fate of carbon in a mature forest under carbon dioxide enrichment. Nature, 2020, 580, 227-231.	13.7	218
31	Enhanced regional terrestrial carbon uptake over Korea revealed by atmospheric CO 2 measurements from 1999 to 2017. Global Change Biology, 2020, 26, 3368-3383.	4.2	7
32	Ensemble projections elucidate effects of uncertainty in terrestrial nitrogen limitation on future carbon uptake. Global Change Biology, 2020, 26, 3978-3996.	4.2	41
33	Evaluation of global terrestrial evapotranspiration using state-of-the-art approaches in remote sensing, machine learning and land surface modeling. Hydrology and Earth System Sciences, 2020, 24, 1485-1509.	1.9	130
34	Sources of Uncertainty in Regional and Global Terrestrial CO₂ Exchange Estimates. Global Biogeochemical Cycles, 2020, 34, e2019GB006393.	1.9	59
35	Nitrogen cycling in CMIP6 land surface models: progress and limitations. Biogeosciences, 2020, 17, 5129-5148.	1.3	60
36	Evaluating two soil carbon models within the global land surface model JSBACH using surface and spaceborne observations of atmospheric CO₂. Biogeosciences, 2020, 17, 5721-5743.	1.3	6

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37	Global Carbon Budget 2020. Earth System Science Data, 2020, 12, 3269-3340.	3.7	1,477
38	Modeling Soil Responses to Nitrogen and Phosphorus Fertilization Along a Soil Phosphorus Stock Gradient. Frontiers in Forests and Global Change, 2020, 3, .	1.0	2
39	Amazon forest response to CO2 fertilization dependent on plant phosphorus acquisition. Nature Geoscience, 2019, 12, 736-741.	5.4	177
40	Parameter calibration and stomatal conductance formulation comparison for boreal forests with adaptive population importance sampler in the land surface model JSBACH. Geoscientific Model Development, 2019, 12, 4075-4098.	1.3	10
41	Towards a more physiological representation of vegetation phosphorus processes in land surface models. New Phytologist, 2019, 222, 1223-1229.	3.5	58
42	The quasi-equilibrium framework revisited: analyzing long-term CO₂ enrichment responses in plantâ€"soil models. Geoscientific Model Development, 2019, 12, 2069-2089.	1.3	5
43	Decadal biomass increment in early secondary succession woody ecosystems is increased by CO2 enrichment. Nature Communications, 2019, 10, 454.	5.8	68
44	Effects of mesophyll conductance on vegetation responses to elevated CO₂ concentrations in a land surface model. Global Change Biology, 2019, 25, 1820-1838.	4.2	38
45	Accounting for carbon and nitrogen interactions in the global terrestrial ecosystem model ORCHIDEE (trunk version, rev 4999): multi-scale evaluation of gross primary production. Geoscientific Model Development, 2019, 12, 4751-4779.	1.3	45
46	Three decades of simulated global terrestrial carbon fluxes from a data assimilation system confronted with different periods of observations. Biogeosciences, 2019, 16, 3009-3032.	1.3	4
47	A new model of the coupled carbon, nitrogen, and phosphorus cycles in the terrestrial biosphere (QUINCY v1.0; revision 1996). Geoscientific Model Development, 2019, 12, 4781-4802.	1.3	39
48	Global soil nitrous oxide emissions since the preindustrial era estimated by an ensemble of terrestrial biosphere models: Magnitude, attribution, and uncertainty. Global Change Biology, 2019, 25, 640-659.	4.2	214
49	Global Carbon Budget 2019. Earth System Science Data, 2019, 11, 1783-1838.	3.7	1,159
50	The Global N2O Model Intercomparison Project. Bulletin of the American Meteorological Society, 2018, 99, 1231-1251.	1.7	123
51	Plant Regrowth as a Driver of Recent Enhancement of Terrestrial CO₂ Uptake. Geophysical Research Letters, 2018, 45, 4820-4830.	1.5	32
52	Identifying differences in carbohydrate dynamics of seedlings and mature trees to improve carbon allocation in models for trees and forests. Environmental and Experimental Botany, 2018, 152, 7-18.	2.0	115
53	Land use change and El NiÃ±o-Southern Oscillation drive decadal carbon balance shifts in Southeast Asia. Nature Communications, 2018, 9, 1154.	5.8	28
54	Towards physiologically meaningful waterâ€use efficiency estimates from eddy covariance data. Global Change Biology, 2018, 24, 694-710.	4.2	105

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55	Evaluation of simulated ozone effects in forest ecosystems against biomass damage estimates from fumigation experiments. Biogeosciences, 2018, 15, 6941-6957.	1.3	11
56	Implementing the nitrogen cycle into the dynamic global vegetation, hydrology, and crop growth model LPJmL (version 5.0). Geoscientific Model Development, 2018, 11, 2789-2812.	1.3	61
57	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.	1.3	32
58	Controls of terrestrial ecosystem nitrogen loss on simulated productivity responses to elevated CO₂. Biogeosciences, 2018, 15, 5677-5698.	1.3	10
59	Reconciling global-model estimates and country reporting of anthropogenic forest CO2 sinks. Nature Climate Change, 2018, 8, 914-920.	8.1	101
60	History of El NiÃ±o impacts on the global carbon cycle 1957â€“2017: a quantification from atmospheric CO ₂ data. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170303.	1.8	42
61	Impact of the 2015/2016 El NiÃ±o on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170304.	1.8	63
62	How does the terrestrial carbon exchange respond to inter-annual climatic variations? A quantification based on atmospheric CO₂ data. Biogeosciences, 2018, 15, 2481-2498.	1.3	68
63	Using research networks to create the comprehensive datasets needed to assess nutrient availability as a key determinant of terrestrial carbon cycling. Environmental Research Letters, 2018, 13, 125006.	2.2	36
64	Year-round simulated methane emissions from a permafrost ecosystem in Northeast Siberia. Biogeosciences, 2018, 15, 2691-2722.	1.3	9
65	Bigleafâ€"An R package for the calculation of physical and physiological ecosystem properties from eddy covariance data. PLoS ONE, 2018, 13, e0201114.	1.1	67
66	Global Carbon Budget 2018. Earth System Science Data, 2018, 10, 2141-2194.	3.7	1,167
67	Global Carbon Budget 2017. Earth System Science Data, 2018, 10, 405-448.	3.7	801
68	Historical carbon dioxide emissions caused by land-use changes are possibly larger than assumed. Nature Geoscience, 2017, 10, 79-84.	5.4	284
69	Challenging terrestrial biosphere models with data from the longâ€term multifactor Prairie Heating and <scp>CO</scp>₂ Enrichment experiment. Global Change Biology, 2017, 23, 3623-3645.	4.2	42
70	Compensatory water effects link yearly global land CO2 sink changes to temperature. Nature, 2017, 541, 516-520.	13.7	480
71	Comment on â€œMycorrhizal association as a primary control of the CO ₂ fertilization effectâ€• Science, 2017, 355, 358-358.	6.0	16
72	Plant functional traits and canopy structure control the relationship between photosynthetic <scp>CO</scp>₂ uptake and farâ€red sunâ€induced fluorescence in a Mediterranean grassland under different nutrient availability. New Phytologist, 2017, 214, 1078-1091.	3.5	158

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73	A roadmap for improving the representation of photosynthesis in Earth system models. New Phytologist, 2017, 213, 22-42.	3.5	365
74	Gross primary production responses to warming, elevated <scp>CO</scp>₂, and irrigation: quantifying the drivers of ecosystem physiology in a semiarid grassland. Global Change Biology, 2017, 23, 3092-3106.	4.2	43
75	Adaptation of microbial resource allocation affects modelled long term soil organic matter and nutrient cycling. Soil Biology and Biochemistry, 2017, 115, 322-336.	4.2	44
76	The response of ecosystem waterâ€use efficiency to rising atmospheric <scp>CO</scp>₂ concentrations: sensitivity and largeâ€scale biogeochemical implications. New Phytologist, 2017, 213, 1654-1666.	3.5	92
77	A representation of the phosphorus cycle for ORCHIDEE (revisionÂ4520). Geoscientific Model Development, 2017, 10, 3745-3770.	1.3	122
78	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. Biogeosciences, 2017, 14, 5053-5067.	1.3	58
79	Modelling sun-induced fluorescence and photosynthesis with a land surface model at local and regional scales in northern Europe. Biogeosciences, 2017, 14, 1969-1987.	1.3	40
80	Development and evaluation of an ozone deposition scheme for coupling to a terrestrial biosphere model. Biogeosciences, 2017, 14, 45-71.	1.3	18
81	C4MIP â€" The Coupled Climateâ€"Carbon Cycle Model Intercomparison Project: experimental protocol for CMIP6. Geoscientific Model Development, 2016, 9, 2853-2880.	1.3	186
82	Role of CO₂, climate and land use in regulating the seasonal amplitude increase of carbon fluxes in terrestrial ecosystems: a multimodel analysis. Biogeosciences, 2016, 13, 5121-5137.	1.3	26
83	Variability of projected terrestrial biosphere responses to elevated levels of atmospheric CO₂ due to uncertainty in biological nitrogen fixation. Biogeosciences, 2016, 13, 1491-1518.	1.3	67
84	The carbon cycle in Mexico: past, present and future of C stocks and fluxes. Biogeosciences, 2016, 13, 223-238.	1.3	24
85	Constraining a land-surface model with multiple observations by application of the MPI-Carbon Cycle Data Assimilation System V1.0. Geoscientific Model Development, 2016, 9, 2999-3026.	1.3	30
86	The dry season intensity as a key driver of NPP trends. Geophysical Research Letters, 2016, 43, 2632-2639.	1.5	60
87	Terrestrial nitrogen cycling in Earth system models revisited. New Phytologist, 2016, 210, 1165-1168.	3.5	35
88	Global patterns and substrateâ€based mechanisms of theÂterrestrial nitrogen cycle. Ecology Letters, 2016, 19, 697-709.	3.0	192
89	Modelâ€"data synthesis for the next generation of forest freeâ€air <scp>CO</scp>₂ enrichment (<scp>FACE</scp>) experiments. New Phytologist, 2016, 209, 17-28.	3.5	178
90	Greening of the Earth and its drivers. Nature Climate Change, 2016, 6, 791-795.	8.1	1,675

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91	Regional carbon fluxes from land use and land cover change in Asia, 1980â€“2009. Environmental Research Letters, 2016, 11, 074011.	2.2	31
92	Using models to guide field experiments: <i>a priori</i> predictions for the <scp>CO</scp>₂ response of a nutrientâ€and waterâ€limited native Eucalypt woodland. Global Change Biology, 2016, 22, 2834-2851.	4.2	77
93	Enhanced seasonal CO ₂ exchange caused by amplified plant productivity in northern ecosystems. Science, 2016, 351, 696-699.	6.0	319
94	Comparative carbon cycle dynamics of the present and last interglacial. Quaternary Science Reviews, 2016, 137, 15-32.	1.4	26
95	Global Carbon Budget 2016. Earth System Science Data, 2016, 8, 605-649.	3.7	905
96	Predicting longâ€term carbon sequestration in response to CO₂ enrichment: How and why do current ecosystem models differ?. Global Biogeochemical Cycles, 2015, 29, 476-495.	1.9	99
97	Evaluating stomatal models and their atmospheric drought response in a land surface scheme: A multibiome analysis. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1894-1911.	1.3	79
98	Multicriteria evaluation of discharge simulation in Dynamic Global Vegetation Models. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7488-7505.	1.2	25
99	The role of stoichiometric flexibility in modelling forest ecosystem responses to nitrogen fertilization. New Phytologist, 2015, 208, 1042-1055.	3.5	73
100	Effects of global change during the 21st century on the nitrogen cycle. Atmospheric Chemistry and Physics, 2015, 15, 13849-13893.	1.9	168
101	Recent trends and drivers of regional sources and sinks of carbon dioxide. Biogeosciences, 2015, 12, 653-679.	1.3	587
102	Soil carbon management in large-scale Earth system modelling: implications for crop yields and nitrogen leaching. Earth System Dynamics, 2015, 6, 745-768.	2.7	40
103	Nitrogen Availability Reduces CMIP5 Projections of Twenty-First-Century Land Carbon Uptake*. Journal of Climate, 2015, 28, 2494-2511.	1.2	87
104	Using ecosystem experiments to improve vegetation models. Nature Climate Change, 2015, 5, 528-534.	8.1	249
105	The dominant role of semi-arid ecosystems in the trend and variability of the land CO ₂ sink. Science, 2015, 348, 895-899.	6.0	1,002
106	Separation of the Effects of Land and Climate Model Errors on Simulated Contemporary Land Carbon Cycle Trends in the MPI Earth System Model version 1*. Journal of Climate, 2015, 28, 272-291.	1.2	20
107	Benchmarking the seasonal cycle of CO₂ fluxes simulated by terrestrial ecosystem models. Global Biogeochemical Cycles, 2015, 29, 46-64.	1.9	48
108	Does the growth response of woody plants to elevated <scp>CO</scp>₂ increase with temperature? A modelâ€oriented metaâ€analysis. Global Change Biology, 2015, 21, 4303-4319.	4.2	51

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109	Reconciling Precipitation with Runoff: Observed Hydrological Change in the Midlatitudes. Journal of Hydrometeorology, 2015, 16, 2403-2420.	0.7	7
110	Global Carbon Budget 2015. Earth System Science Data, 2015, 7, 349-396.	3.7	616
111	Implications of incorporating N cycling and N limitations on primary production in an individual-based dynamic vegetation model. Biogeosciences, 2014, 11, 2027-2054.	1.3	476
112	Where does the carbon go? A modelâ€“data intercomparison of vegetation carbon allocation and turnover processes at two temperate forest freeâ€air CO₂ enrichment sites. New Phytologist, 2014, 203, 883-899.	3.5	263
113	Evaluation of 11 terrestrial carbonâ€“nitrogen cycle models against observations from two temperate <scp>F</scp>reeâ€<scp>A</scp>ir <scp>CO</scp>₂<scp> E</scp>nrichment studies. New Phytologist, 2014, 202, 803-822.	3.5	378
114	A few extreme events dominate global interannual variability in gross primary production. Environmental Research Letters, 2014, 9, 035001.	2.2	194
115	Global carbon budget 2013. Earth System Science Data, 2014, 6, 235-263.	3.7	311
116	Evidence for a weakening relationship between interannual temperature variability and northern vegetation activity. Nature Communications, 2014, 5, 5018.	5.8	414
117	Future noâ€analogue vegetation produced by noâ€analogue combinations of temperature and insolation. Global Ecology and Biogeography, 2014, 23, 156-167.	2.7	34
118	Comprehensive ecosystem modelâ€data synthesis using multiple data sets at two temperate forest freeâ€air CO₂ enrichment experiments: Model performance at ambient CO₂ concentration. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 937-964.	1.3	95
119	Does the integration of the dynamic nitrogen cycle in a terrestrial biosphere model improve the long-term trend of the leaf area index?. Climate Dynamics, 2013, 40, 2535-2548.	1.7	8
120	The BETHY/JSBACH Carbon Cycle Data Assimilation System: experiences and challenges. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1414-1426.	1.3	86
121	Multiple greenhouse-gas feedbacks from the land biosphere under future climate change scenarios. Nature Climate Change, 2013, 3, 666-672.	8.1	209
122	Forest water use and water use efficiency at elevated <scp><scp>CO₂</scp></scp>: a modelâ€data intercomparison at two contrasting temperate forest <scp>FACE</scp> sites. Global Change Biology, 2013, 19, 1759-1779.	4.2	314
123	Evaluation of terrestrial carbon cycle models for their response to climate variability and to <scp><scp>CO₂</scp></scp> trends. Global Change Biology, 2013, 19, 2117-2132.	4.2	617
124	Terrestrial nitrogenâ€“carbon cycle interactions at the global scale. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130125.	1.8	125
125	The global carbon budget 1959â€“2011. Earth System Science Data, 2013, 5, 165-185.	3.7	527
126	Evaluation of Land Surface Models in Reproducing Satellite-Derived LAI over the High-Latitude Northern Hemisphere. Part I: Uncoupled DGVMs. Remote Sensing, 2013, 5, 4819-4838.	1.8	82

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127	Global patterns of nitrogen limitation: confronting two global biogeochemical models with observations. Global Change Biology, 2013, 19, 2986-2998.	4.2	117
128	Can we model observed soil carbon changes from a dense inventory? A case study over England and Wales using three versions of the ORCHIDEE ecosystem model (AR5, AR5-PRIM and O-CN). Geoscientific Model Development, 2013, 6, 2153-2163.	1.3	11
129	Evaluation of biospheric components in Earth system models using modern and palaeo-observations: the state-of-the-art. Biogeosciences, 2013, 10, 8305-8328.	1.3	11
130	Towards a more objective evaluation of modelled land-carbon trends using atmospheric CO₂ and satellite-based vegetation activity observations. Biogeosciences, 2013, 10, 4189-4210.	1.3	24
131	The European land and inland water CO₂, CO, CH₄ and N₂O balance between 2001 and 2005. Biogeosciences, 2012, 9, 3357-3380.	1.3	53
132	The carbon balance of South America: a review of the status, decadal trends and main determinants. Biogeosciences, 2012, 9, 5407-5430.	1.3	78
133	The carbon budget of terrestrial ecosystems in East Asia over the last two decades. Biogeosciences, 2012, 9, 3571-3586.	1.3	103
134	A framework for benchmarking land models. Biogeosciences, 2012, 9, 3857-3874.	1.3	267
135	Assessing and improving the representativeness of monitoring networks: The European flux tower network example. Journal of Geophysical Research, 2011, 116, .	3.3	32
136	Carbonâ€“nitrogen interactions on land at global scales: current understanding in modelling climate biosphere feedbacks. Current Opinion in Environmental Sustainability, 2011, 3, 311-320.	3.1	213
137	Carbon benefits of anthropogenic reactive nitrogen offset by nitrous oxide emissions. Nature Geoscience, 2011, 4, 601-605.	5.4	215
138	The evaluation of Earth System Models: discussion summary. Procedia Environmental Sciences, 2011, 6, 216-221.	1.3	2
139	The role of plant functional trade-offs for biodiversity changes and biome shifts under scenarios of global climatic change. Biogeosciences, 2011, 8, 1255-1266.	1.3	26
140	Semiempirical modeling of abiotic and biotic factors controlling ecosystem respiration across eddy covariance sites. Global Change Biology, 2011, 17, 390-409.	4.2	128
141	TRY â€“ a global database of plant traits. Global Change Biology, 2011, 17, 2905-2935.	4.2	2,002
142	The European carbon balance. Part 3: forests. Global Change Biology, 2010, 16, 1429-1450.	4.2	247
143	Robust dynamics of Amazon dieback to climate change with perturbed ecosystem model parameters. Global Change Biology, 2010, 16, 2476-2495.	4.2	53
144	Recent decline in the global land evapotranspiration trend due to limited moisture supply. Nature, 2010, 467, 951-954.	13.7	1,771

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145	Terrestrial biogeochemical feedbacks in the climate system. Nature Geoscience, 2010, 3, 525-532.	5.4	486
146	Interactions between nitrogen deposition, land cover conversion, and climate change determine the contemporary carbon balance of Europe. Biogeosciences, 2010, 7, 2749-2764.	1.3	53
147	From biota to chemistry and climate: towards a comprehensive description of trace gas exchange between the biosphere and atmosphere. Biogeosciences, 2010, 7, 121-149.	1.3	84
148	Terrestrial nitrogen feedbacks may accelerate future climate change. Geophysical Research Letters, 2010, 37, .	1.5	230
149	Comparing observations and processâ€based simulations of biosphereâ€atmosphere exchanges on multiple timescales. Journal of Geophysical Research, 2010, 115, .	3.3	66
150	Carbon and nitrogen cycle dynamics in the Oâ€CN land surface model: 1. Model description, siteâ€scale evaluation, and sensitivity to parameter estimates. Global Biogeochemical Cycles, 2010, 24, .	1.9	362
151	Carbon and nitrogen cycle dynamics in the Oâ€CN land surface model: 2. Role of the nitrogen cycle in the historical terrestrial carbon balance. Global Biogeochemical Cycles, 2010, 24, .	1.9	235
152	Improved understanding of drought controls on seasonal variation in Mediterranean forest canopy CO₂ and water fluxes through combined in situ measurements and ecosystem modelling. Biogeosciences, 2009, 6, 1423-1444.	1.3	85
153	Carbon accumulation in European forests. Nature Geoscience, 2008, 1, 425-429.	5.4	263
154	Impact of changing wood demand, climate and land use on European forest resources and carbon stocks during the 21st century. Global Change Biology, 2008, 14, 2288-2303.	4.2	79
155	Parameter uncertainties in the modelling of vegetation dynamicsâ€"Effects on tree community structure and ecosystem functioning in European forest biomes. Ecological Modelling, 2008, 216, 277-290.	1.2	86
156	Analyzing the causes and spatial pattern of the European 2003 carbon flux anomaly using seven models. Biogeosciences, 2008, 5, 561-583.	1.3	136
157	Changes in climate and land use have a larger direct impact than rising CO ₂ on global river runoff trends. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15242-15247.	3.3	504
158	Moderating the impact of agriculture on climate. Agricultural and Forest Meteorology, 2007, 142, 278-287.	1.9	31
159	Nitrification amplifies the decreasing trends of atmospheric oxygen and implies a larger land carbon uptake. Global Biogeochemical Cycles, 2007, 21, n/a-n/a.	1.9	9
160	Uncertainties of modeling gross primary productivity over Europe: A systematic study on the effects of using different drivers and terrestrial biosphere models. Global Biogeochemical Cycles, 2007, 21, .	1.9	163
161	Effects of changes in CO2, climate, and land use on the carbon balance of the land biosphere during the 21st century. Journal of Geophysical Research, 2007, 112, .	3.3	31
162	Improving Our Understanding of Earth System Processes: GREENCYCLES Annual Network and Midterm Review Meeting, Barcelona, Spain, 21-23 March 2007. Eos, 2007, 88, 372-372.	0.1	0

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163	Assessing the ability of three land ecosystem models to simulate gross carbon uptake of forests from boreal to Mediterranean climate in Europe. Biogeosciences, 2007, 4, 647-656.	1.3	70
164	FLUXNET and modelling the global carbon cycle. Global Change Biology, 2007, 13, 610-633.	4.2	234
165	Modelling the role of agriculture for the 20th century global terrestrial carbon balance. Global Change Biology, 2007, 13, 679-706.	4.2	1,133
166	Climate change cannot be entirely responsible for soil carbon loss observed in England and Wales, 1978â€"2003. Global Change Biology, 2007, 13, 2605-2609.	4.2	126
167	Projected Changes in Terrestrial Carbon Storage in Europe under Climate and Land-use Change, 1990â€"2100. Ecosystems, 2007, 10, 380-401.	1.6	131
168	THE IMPORTANCE OF AGE-RELATED DECLINE IN FOREST NPP FOR MODELING REGIONAL CARBON BALANCES. , 2006, 16, 1555-1574.		116
169	Implementing plant hydraulic architecture within the LPJ Dynamic Global Vegetation Model. Global Ecology and Biogeography, 2006, 15, 567-577.	2.7	140
170	Projected changes in mineral soil carbon of European croplands and grasslands, 1990-2080. Global Change Biology, 2005, 11, 2141-2152.	4.2	298
171	Effect Of Height On Tree Hydraulic Conductance Incompletely Compensated By Xylem Tapering. Functional Ecology, 2005, 19, 359-364.	1.7	35
172	Ecosystem Service Supply and Vulnerability to Global Change in Europe. Science, 2005, 310, 1333-1337.	6.0	1,355
173	Contemporary â€œgreenâ€• water flows: Simulations with a dynamic global vegetation and water balance model. Physics and Chemistry of the Earth, 2005, 30, 334-338.	1.2	88
174	Effects of parameter uncertainties on the modeling of terrestrial biosphere dynamics. Global Biogeochemical Cycles, 2005, 19, .	1.9	274