

Nicolas Viovy

List of Publications by Citations

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196
papers

27,831
citations

65
h-index

166
g-index

238
ext. papers

32,319
ext. citations

8.4
avg, IF

6.04
L-index

#	Paper	IF	Citations
196	Europe-wide reduction in primary productivity caused by the heat and drought in 2003. <i>Nature</i> , 2005 , 437, 529-33	50.4	2643
195	Terrestrial gross carbon dioxide uptake: global distribution and covariation with climate. <i>Science</i> , 2010 , 329, 834-8	33.3	1638
194	A dynamic global vegetation model for studies of the coupled atmosphere-biosphere system. <i>Global Biogeochemical Cycles</i> , 2005 , 19,	5.9	1481
193	Trends in the sources and sinks of carbon dioxide. <i>Nature Geoscience</i> , 2009 , 2, 831-836	18.3	1453
192	Recent decline in the global land evapotranspiration trend due to limited moisture supply. <i>Nature</i> , 2010 , 467, 951-4	50.4	1382
191	Climate change projections using the IPSL-CM5 Earth System Model: from CMIP3 to CMIP5. <i>Climate Dynamics</i> , 2013 , 40, 2123-2165	4.2	1185
190	Greening of the Earth and its drivers. <i>Nature Climate Change</i> , 2016 , 6, 791-795	21.4	1036
189	Global Carbon Budget 2018. <i>Earth System Science Data</i> , 2018 , 10, 2141-2194	10.5	831
188	Global Carbon Budget 2016. <i>Earth System Science Data</i> , 2016 , 8, 605-649	10.5	730
187	Carbon cycle. The dominant role of semi-arid ecosystems in the trend and variability of the land CO ₂ sink. <i>Science</i> , 2015 , 348, 895-9	33.3	684
186	The global methane budget 2000-2012. <i>Earth System Science Data</i> , 2016 , 8, 697-751	10.5	641
185	Global Carbon Budget 2017. <i>Earth System Science Data</i> , 2018 , 10, 405-448	10.5	614
184	Global Carbon Budget 2015. <i>Earth System Science Data</i> , 2015 , 7, 349-396	10.5	513
183	Evaluation of terrestrial carbon cycle models for their response to climate variability and to CO ₂ trends. <i>Global Change Biology</i> , 2013 , 19, 2117-32	11.4	481
182	The Global Methane Budget 2000-2017. <i>Earth System Science Data</i> , 2020 , 12, 1561-1623	10.5	463
181	Growing season extension and its impact on terrestrial carbon cycle in the Northern Hemisphere over the past 2 decades. <i>Global Biogeochemical Cycles</i> , 2007 , 21, n/a-n/a	5.9	443
180	The global carbon budget 1959-2011. <i>Earth System Science Data</i> , 2013 , 5, 165-185	10.5	436

179	Recent trends and drivers of regional sources and sinks of carbon dioxide. <i>Biogeosciences</i> , 2015 , 12, 653-679	4.79	432
178	Reduction of ecosystem productivity and respiration during the European summer 2003 climate anomaly: a joint flux tower, remote sensing and modelling analysis. <i>Global Change Biology</i> , 2007 , 13, 634-651	11.4	423
177	Global carbon budget 2014. <i>Earth System Science Data</i> , 2015 , 7, 47-85	10.5	367
176	Compensatory water effects link yearly global land CO sink changes to temperature. <i>Nature</i> , 2017 , 541, 516-520	50.4	341
175	The Best Index Slope Extraction (BISE): A method for reducing noise in NDVI time-series. <i>International Journal of Remote Sensing</i> , 1992 , 13, 1585-1590	3.1	327
174	Historical phenology: grape ripening as a past climate indicator. <i>Nature</i> , 2004 , 432, 289-90	50.4	304
173	Spatiotemporal patterns of terrestrial gross primary production: A review. <i>Reviews of Geophysics</i> , 2015 , 53, 785-818	23.1	297
172	Global-Scale Assessment of Vegetation Phenology Using NOAA/AVHRR Satellite Measurements. <i>Journal of Climate</i> , 1997 , 10, 1154-1170	4.4	286
171	Evidence for a weakening relationship between interannual temperature variability and northern vegetation activity. <i>Nature Communications</i> , 2014 , 5, 5018	17.4	274
170	Water-use efficiency and transpiration across European forests during the Anthropocene. <i>Nature Climate Change</i> , 2015 , 5, 579-583	21.4	271
169	Global carbon budget 2013. <i>Earth System Science Data</i> , 2014 , 6, 235-263	10.5	264
168	Impact of climate variability and land use changes on global biogenic volatile organic compound emissions. <i>Atmospheric Chemistry and Physics</i> , 2006 , 6, 2129-2146	6.8	259
167	Summertime European heat and drought waves induced by wintertime Mediterranean rainfall deficit. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	237
166	Comparing and evaluating process-based ecosystem model predictions of carbon and water fluxes in major European forest biomes.. <i>Global Change Biology</i> , 2005 , 11, 2211-2233	11.4	231
165	Source attribution of the changes in atmospheric methane for 2006-2008. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 3689-3700	6.8	224
164	A global prognostic scheme of leaf onset using satellite data. <i>Global Change Biology</i> , 2000 , 6, 709-725	11.4	222
163	FLUXNET and modelling the global carbon cycle. <i>Global Change Biology</i> , 2007 , 13, 610-633	11.4	201
162	Historical carbon dioxide emissions caused by land-use changes are possibly larger than assumed. <i>Nature Geoscience</i> , 2017 , 10, 79-84	18.3	195

161	Presentation and Evaluation of the IPSL-CM6A-LR Climate Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2020 , 12, e2019MS002010	7.1	188
160	Challenges in quantifying biosphere-atmosphere exchange of nitrogen species. <i>Environmental Pollution</i> , 2007 , 150, 125-39	9.3	186
159	North American Carbon Program (NACP) regional interim synthesis: Terrestrial biospheric model intercomparison. <i>Ecological Modelling</i> , 2012 , 232, 144-157	3	180
158	The North American Carbon Program Multi-scale Synthesis and Terrestrial Model Intercomparison Project [Part 2: Environmental driver data. <i>Geoscientific Model Development</i> , 2014 , 7, 2875-2893	6.3	168
157	Climate change impacts on tree ranges: model intercomparison facilitates understanding and quantification of uncertainty. <i>Ecology Letters</i> , 2012 , 15, 533-44	10	162
156	Spatiotemporal patterns of terrestrial carbon cycle during the 20th century. <i>Global Biogeochemical Cycles</i> , 2009 , 23, n/a-n/a	5.9	151
155	Uncertainties of modeling gross primary productivity over Europe: A systematic study on the effects of using different drivers and terrestrial biosphere models. <i>Global Biogeochemical Cycles</i> , 2007 , 21, n/a-n/a	5.9	132
154	The global carbon budget 1959-2011 2012 ,		122
153	Analyzing the causes and spatial pattern of the European 2003 carbon flux anomaly using seven models. <i>Biogeosciences</i> , 2008 , 5, 561-583	4.6	122
152	Global carbon budget 2014		121
151	Impact of large-scale climate extremes on biospheric carbon fluxes: An intercomparison based on MsTMIP data. <i>Global Biogeochemical Cycles</i> , 2014 , 28, 585-600	5.9	112
150	Effects of climate change and seed dispersal on airborne ragweed pollen loads in Europe. <i>Nature Climate Change</i> , 2015 , 5, 766-771	21.4	110
149	Optimizing a process-based ecosystem model with eddy-covariance flux measurements: A pine forest in southern France. <i>Global Biogeochemical Cycles</i> , 2007 , 21, n/a-n/a	5.9	102
148	LS3MIP (v1.0) contribution to CMIP6: the Land Surface, Snow and Soil moisture Model Intercomparison Project [aims, setup and expected outcome. <i>Geoscientific Model Development</i> , 2016 , 9, 2809-2832	6.3	98
147	Global wetland contribution to 2000-2012 atmospheric methane growth rate dynamics. <i>Environmental Research Letters</i> , 2017 , 12, 094013	6.2	97
146	Modeling climate change effects on the potential production of French plains forests at the sub-regional level. <i>Tree Physiology</i> , 2005 , 25, 813-23	4.2	93
145	Modelling the role of fires in the terrestrial carbon balance by incorporating SPITFIRE into the global vegetation model ORCHIDEE [Part 1: simulating historical global burned area and fire regimes. <i>Geoscientific Model Development</i> , 2014 , 7, 2747-2767	6.3	90
144	Carbon and water balance of European croplands throughout the 20th century. <i>Global Biogeochemical Cycles</i> , 2008 , 22, n/a-n/a	5.9	86

143	Direct and seasonal legacy effects of the 2018 heat wave and drought on European ecosystem productivity. <i>Science Advances</i> , 2020 , 6, eaba2724	14.3	85
142	The carbon budget of terrestrial ecosystems in East Asia over the last two decades. <i>Biogeosciences</i> , 2012 , 9, 3571-3586	4.6	83
141	Reconstruction and attribution of the carbon sink of European forests between 1950 and 2000. <i>Global Change Biology</i> , 2011 , 17, 3274-3292	11.4	79
140	Assimilation of global MODIS leaf area index retrievals within a terrestrial biosphere model. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	78
139	On the assignment of prior errors in Bayesian inversions of CO2 surface fluxes. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	78
138	Global carbon budget 2013 2013 ,		75
137	Coupling the Soil-Vegetation-Atmosphere-Transfer Scheme ORCHIDEE to the agronomy model STICS to study the influence of croplands on the European carbon and water budgets. <i>Agronomy for Sustainable Development</i> , 2004 , 24, 397-407		71
136	Variability and quasi-decadal changes in the methane budget over the period 2000-2012. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 11135-11161	6.8	69
135	Carbon cycle uncertainty in the Alaskan Arctic. <i>Biogeosciences</i> , 2014 , 11, 4271-4288	4.6	69
134	Evaluation of Land Surface Models in Reproducing Satellite-Derived LAI over the High-Latitude Northern Hemisphere. Part I: Uncoupled DGVMs. <i>Remote Sensing</i> , 2013 , 5, 4819-4838	5	69
133	Including Croplands in a Global Biosphere Model: Methodology and Evaluation at Specific Sites. <i>Earth Interactions</i> , 2004 , 8, 1-25	1.5	66
132	Assessing the ability of three land ecosystem models to simulate gross carbon uptake of forests from boreal to Mediterranean climate in Europe. <i>Biogeosciences</i> , 2007 , 4, 647-656	4.6	65
131	Evaluation of continental carbon cycle simulations with North American flux tower observations. <i>Ecological Monographs</i> , 2013 , 83, 531-556	9	63
130	Modelling forest management within a global vegetation model Part 1: Model structure and general behaviour. <i>Ecological Modelling</i> , 2010 , 221, 2458-2474	3	63
129	A global analysis of soil moisture derived from satellite observations and a land surface model. <i>Hydrology and Earth System Sciences</i> , 2012 , 16, 833-847	5.5	61
128	Global Carbon Budget 2017		60
127	Vegetation structural change since 1981 significantly enhanced the terrestrial carbon sink. <i>Nature Communications</i> , 2019 , 10, 4259	17.4	59
126	Reconciling global-model estimates and country reporting of anthropogenic forest CO2 sinks. <i>Nature Climate Change</i> , 2018 , 8, 914-920	21.4	57

125	Model of the Regional Coupled Earth system (MORCE): Application to process and climate studies in vulnerable regions. <i>Environmental Modelling and Software</i> , 2012 , 35, 1-18	5.2	56
124	Mortality as a key driver of the spatial distribution of aboveground biomass in Amazonian forest: results from a dynamic vegetation model. <i>Biogeosciences</i> , 2010 , 7, 3027-3039	4.6	54
123	Effect of climate change, CO ₂ trends, nitrogen addition, and land-cover and management intensity changes on the carbon balance of European grasslands. <i>Global Change Biology</i> , 2016 , 22, 338-50	11.4	53
122	APIFLAME v1.0: high-resolution fire emission model and application to the Euro-Mediterranean region. <i>Geoscientific Model Development</i> , 2014 , 7, 587-612	6.3	50
121	Impact of CO ₂ and climate on the Last Glacial Maximum vegetation: results from the ORCHIDEE/IPSL models. <i>Climate of the Past</i> , 2011 , 7, 557-577	3.9	49
120	Effects of land use change and management on the European cropland carbon balance. <i>Global Change Biology</i> , 2011 , 17, 320-338	11.4	49
119	The greenhouse gas balance of European grasslands. <i>Global Change Biology</i> , 2015 , 21, 3748-61	11.4	47
118	Incorporating grassland management in ORCHIDEE: model description and evaluation at 11 eddy-covariance sites in Europe. <i>Geoscientific Model Development</i> , 2013 , 6, 2165-2181	6.3	47
117	Impact of tropospheric ozone on the Euro-Mediterranean vegetation. <i>Global Change Biology</i> , 2011 , 17, 2342-2359	11.4	47
116	Interactions between nitrogen deposition, land cover conversion, and climate change determine the contemporary carbon balance of Europe. <i>Biogeosciences</i> , 2010 , 7, 2749-2764	4.6	47
115	The interannual variability of Africa's ecosystem productivity: a multi-model analysis. <i>Biogeosciences</i> , 2009 , 6, 285-295	4.6	47
114	Trends and drivers of regional sources and sinks of carbon dioxide over the past two decades		44
113	Benchmarking the seasonal cycle of CO ₂ fluxes simulated by terrestrial ecosystem models. <i>Global Biogeochemical Cycles</i> , 2015 , 29, 46-64	5.9	42
112	Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. <i>Biogeosciences</i> , 2017 , 14, 5053-5067	4.6	42
111	The dry season intensity as a key driver of NPP trends. <i>Geophysical Research Letters</i> , 2016 , 43, 2632-2639	4.9	42
110	Impact of the 2015/2016 El Niño on the terrestrial carbon cycle constrained by bottom-up and top-down approaches. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018 , 373,	5.8	41
109	African tropical rainforest net carbon dioxide fluxes in the twentieth century. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013 , 368, 20120376	5.8	39
108	Regional contribution to variability and trends of global gross primary productivity. <i>Environmental Research Letters</i> , 2017 , 12, 105005	6.2	37

107	Asymmetric responses of primary productivity to altered precipitation simulated by ecosystem models across three long-term grassland sites. <i>Biogeosciences</i> , 2018 , 15, 3421-3437	4.6	36
106	Evaluation of a Global Vegetation Model using time series of satellite vegetation indices. <i>Geoscientific Model Development</i> , 2011 , 4, 1103-1114	6.3	36
105	Modelling energy and CO2 fluxes with an interactive vegetation land surface model-Evaluation at high and middle latitudes. <i>Agricultural and Forest Meteorology</i> , 2008 , 148, 1611-1628	5.8	35
104	Future productivity and phenology changes in European grasslands for different warming levels: implications for grassland management and carbon balance. <i>Carbon Balance and Management</i> , 2017 , 12, 11	3.6	34
103	A comparison of alternative modelling approaches to evaluate the European forest carbon fluxes. <i>Forest Ecology and Management</i> , 2010 , 260, 241-251	3.9	34
102	Climate warming from managed grasslands cancels the cooling effect of carbon sinks in sparsely grazed and natural grasslands. <i>Nature Communications</i> , 2021 , 12, 118	17.4	34
101	Management outweighs climate change on affecting length of rice growing period for early rice and single rice in China during 1991-2012. <i>Agricultural and Forest Meteorology</i> , 2017 , 233, 1-11	5.8	33
100	ORCHIDEE-CROP (v0), a new process-based agro-land surface model: model description and evaluation over Europe. <i>Geoscientific Model Development</i> , 2016 , 9, 857-873	6.3	33
99	European-wide simulations of croplands using an improved terrestrial biosphere model: Phenology and productivity. <i>Journal of Geophysical Research</i> , 2010 , 115,		32
98	Vegetation ecology meets ecosystem science: Permanent grasslands as a functional biogeography case study. <i>Science of the Total Environment</i> , 2015 , 534, 43-51	10.2	30
97	Rainfall manipulation experiments as simulated by terrestrial biosphere models: Where do we stand?. <i>Global Change Biology</i> , 2020 , 26, 3336-3355	11.4	30
96	How errors on meteorological variables impact simulated ecosystem fluxes: a case study for six French sites. <i>Biogeosciences</i> , 2012 , 9, 2537-2564	4.6	30
95	Improving the dynamics of Northern Hemisphere high-latitude vegetation in the ORCHIDEE ecosystem model. <i>Geoscientific Model Development</i> , 2015 , 8, 2263-2283	6.3	29
94	Estimating the greenhouse gas fluxes of European grasslands with a process-based model: 1. Model evaluation from in situ measurements. <i>Global Biogeochemical Cycles</i> , 2007 , 21,	5.9	28
93	The North American Carbon Program Multi-scale Synthesis and Terrestrial Model Intercomparison Project [Part 2: Environmental driver data		28
92	Towards a more detailed representation of high-latitude vegetation in the global land surface model ORCHIDEE (ORC-HL-VEGv1.0). <i>Geoscientific Model Development</i> , 2017 , 10, 4693-4722	6.3	27
91	Evaluation of the ORCHIDEE ecosystem model over Africa against 25 years of satellite-based water and carbon measurements. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014 , 119, 1554-1575	3.7	27
90	Moderating the impact of agriculture on climate. <i>Agricultural and Forest Meteorology</i> , 2007 , 142, 278-283	5.8	27

89	. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1994 , 32, 906-917	8.1	27
88	Distribution of known macrozooplankton abundance and biomass in the global ocean. <i>Earth System Science Data</i> , 2013 , 5, 241-257	10.5	26
87	Modeled Changes in Potential Grassland Productivity and in Grass-Fed Ruminant Livestock Density in Europe over 1961-2010. <i>PLoS ONE</i> , 2015 , 10, e0127554	3.7	26
86	The terrestrial carbon budget of South and Southeast Asia. <i>Environmental Research Letters</i> , 2016 , 11, 105006	6.2	26
85	Sensitivity of community-level trait–environment relationships to data representativeness: A test for functional biogeography. <i>Global Ecology and Biogeography</i> , 2017 , 26, 729-739	6.1	25
84	The large mean body size of mammalian herbivores explains the productivity paradox during the Last Glacial Maximum. <i>Nature Ecology and Evolution</i> , 2018 , 2, 640-649	12.3	25
83	Plant community structure and nitrogen inputs modulate the climate signal on leaf traits. <i>Global Ecology and Biogeography</i> , 2017 , 26, 1138-1152	6.1	25
82	Modelling forest management within a global vegetation model Part 2: Model validation from a tree to a continental scale. <i>Ecological Modelling</i> , 2011 , 222, 57-75	3	25
81	Simulating the fluxes of CO ₂ and N ₂ O in European grasslands with the Pasture Simulation Model (PaSim). <i>Agriculture, Ecosystems and Environment</i> , 2007 , 121, 164-174	5.7	25
80	Estimating the greenhouse gas fluxes of European grasslands with a process-based model: 2. Simulations at the continental level. <i>Global Biogeochemical Cycles</i> , 2007 , 21,	5.9	24
79	High-performance computing for climate change impact studies with the Pasture Simulation model. <i>Computers and Electronics in Agriculture</i> , 2013 , 98, 131-135	6.5	23
78	Benchmarking carbon fluxes of the ISIMIP2a biome models. <i>Environmental Research Letters</i> , 2017 , 12, 045002	6.2	23
77	Impact of precipitation intermittency on NAO-temperature signals in proxy records. <i>Climate of the Past</i> , 2013 , 9, 871-886	3.9	23
76	Automatic Classification of Time Series (ACTS): A new clustering method for remote sensing time series. <i>International Journal of Remote Sensing</i> , 2000 , 21, 1537-1560	3.1	23
75	Impacts of extreme summers on European ecosystems: a comparative analysis of 2003, 2010 and 2018. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020 , 375, 20190507	5.8	23
74	Combining livestock production information in a process-based vegetation model to reconstruct the history of grassland management. <i>Biogeosciences</i> , 2016 , 13, 3757-3776	4.6	23
73	Mild winter and spring 2007 over western Europe led to a widespread early vegetation onset. <i>Geophysical Research Letters</i> , 2008 , 35,	4.9	22
72	Interannuality and CO ₂ sensitivity of the SECHIBA-BGC coupled SVAT-BGC model. <i>Physics and Chemistry of the Earth</i> , 1996 , 21, 489-497		22

71	Novel Representation of Leaf Phenology Improves Simulation of Amazonian Evergreen Forest Photosynthesis in a Land Surface Model. <i>Journal of Advances in Modeling Earth Systems</i> , 2020 , 12, e2018MS001565	7.1	22
70	Detecting the critical periods that underpin interannual fluctuations in the carbon balance of European forests. <i>Journal of Geophysical Research</i> , 2010 , 115,		21
69	Multicriteria evaluation of discharge simulation in Dynamic Global Vegetation Models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 7488-7505	4.4	20
68	Role of CO ₂ , climate and land use in regulating the seasonal amplitude increase of carbon fluxes in terrestrial ecosystems: a multimodel analysis. <i>Biogeosciences</i> , 2016 , 13, 5121-5137	4.6	19
67	Higher temperature variability reduces temperature sensitivity of vegetation growth in Northern Hemisphere. <i>Geophysical Research Letters</i> , 2017 , 44, 6173-6181	4.9	19
66	Importance of crop varieties and management practices: evaluation of a process-based model for simulating CO ₂ and H ₂ O fluxes at five European maize (<i>Zea mays</i> L.) sites. <i>Biogeosciences</i> , 2011 , 8, 1721-1736	4.6	19
65	The Global Methane Budget 2000-2017		19
64	Large-Scale Droughts Responsible for Dramatic Reductions of Terrestrial Net Carbon Uptake Over North America in 2011 and 2012. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018 , 123, 2053-2071	4.7	18
63	Increased Global Land Carbon Sink Due to Aerosol-Induced Cooling. <i>Global Biogeochemical Cycles</i> , 2019 , 33, 439-457	5.9	17
62	A comparison of two canopy conductance parameterizations to quantify the interactions between surface ozone and vegetation over Europe. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		16
61	Bio-energy retains its mitigation potential under elevated CO ₂ . <i>PLoS ONE</i> , 2010 , 5, e11648	3.7	16
60	Global Patterns in Net Primary Production Allocation Regulated by Environmental Conditions and Forest Stand Age: A Model-Data Comparison. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019 , 124, 2039-2059	3.7	15
59	The Global Methane Budget: 2000-2012		15
58	1982-2010 Trends of Light Use Efficiency and Inherent Water Use Efficiency in African vegetation: Sensitivity to Climate and Atmospheric CO ₂ Concentrations. <i>Remote Sensing</i> , 2014 , 6, 8923-8944	5	14
57	Modeling sugarcane yield with a process-based model from site to continental scale: uncertainties arising from model structure and parameter values. <i>Geoscientific Model Development</i> , 2014 , 7, 1225-1245	6.3	14
56	Re-evaluating the 1940s CO ₂ plateau. <i>Biogeosciences</i> , 2016 , 13, 4877-4897	4.6	14
55	Continental atmospheric circulation over Europe during the Little Ice Age inferred from grape harvest dates. <i>Climate of the Past</i> , 2012 , 8, 577-588	3.9	13
54	A validation of heat and carbon fluxes from high-resolution land surface and regional models. <i>Journal of Geophysical Research</i> , 2010 , 115,		13

53	ORCHIDEE-STICS, a process-based model of sugarcane biomass production: calibration of model parameters governing phenology. <i>GCB Bioenergy</i> , 2014 , 6, 606-620	5.6	12
52	The inter-annual variability of Africa's ecosystem productivity: a multi-model analysis		12
51	Vapor Pressure Deficit and Sunlight Explain Seasonality of Leaf Phenology and Photosynthesis Across Amazonian Evergreen Broadleaved Forest. <i>Global Biogeochemical Cycles</i> , 2021 , 35, e2020GB006893	5.9	12
50	Benchmark estimates for aboveground litterfall data derived from ecosystem models. <i>Environmental Research Letters</i> , 2019 , 14, 084020	6.2	11
49	Covariations between plant functional traits emerge from constraining parameterization of a terrestrial biosphere model. <i>Global Ecology and Biogeography</i> , 2019 , 28, 1351-1365	6.1	11
48	Simulating boreal forest carbon dynamics after stand-replacing fire disturbance: insights from a global process-based vegetation model. <i>Biogeosciences</i> , 2013 , 10, 8233-8252	4.6	11
47	Potential knowledge gain in large-scale simulations of forest carbon fluxes from remotely sensed biomass and height. <i>Forest Ecology and Management</i> , 2011 , 261, 515-530	3.9	11
46	Contrasting interannual atmospheric CO ₂ variabilities and their terrestrial mechanisms for two types of El Niños. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 10333-10345	6.8	11
45	Response of vegetation cover to CO ₂ and climate changes between Last Glacial Maximum and pre-industrial period in a dynamic global vegetation model. <i>Quaternary Science Reviews</i> , 2019 , 218, 293-305	3.9	10
44	European-wide simulations of croplands using an improved terrestrial biosphere model: 2. Interannual yields and anomalous CO ₂ fluxes in 2003. <i>Journal of Geophysical Research</i> , 2010 , 115,		10
43	Analyzing the causes and spatial pattern of the European 2003 carbon flux anomaly in Europe using seven models		10
42	Coupling water and carbon cycle in the biosphere. / Couplage du cycle de l'eau et du carbone dans la biosphère. <i>Sciences Globales Bulletin</i> , 1997 , 50, 109-121		8
41	How errors on meteorological variables impact simulated ecosystem fluxes: a case study for six French sites		8
40	Simulating the net ecosystem CO ₂ exchange and its components over winter wheat cultivation sites across a large climate gradient in Europe using the ORCHIDEE-STICS generic model. <i>Agriculture, Ecosystems and Environment</i> , 2016 , 226, 1-17	5.7	7
39	Incorporating Biodiversity into Biogeochemistry Models to Improve Prediction of Ecosystem Services in Temperate Grasslands: Review and Roadmap. <i>Agronomy</i> , 2020 , 10, 259	3.6	6
38	A new model of ragweed pollen release based on the analysis of meteorological conditions		6
37	Incorporating grassland management in a global vegetation model: model description and evaluation at 11 eddy-covariance sites in Europe		6
36	ORCHIDEE-CROP (v0), a new process based Agro-Land Surface Model: model description and evaluation over Europe		6

35	Vulnerability of European ecosystems to two compound dry and hot summers in 2018 and 2019. <i>Earth System Dynamics</i> , 2021 , 12, 1015-1035	4.8	6
34	A new approach to optimal discretization of plant functional types in a process-based ecosystem model with forest management: a case study for temperate conifers. <i>Global Ecology and Biogeography</i> , 2017 , 26, 486-499	6.1	5
33	Variability and budget of CO ₂ in Europe: analysis of the CAATER airborne campaigns [Part 2: Comparison of CO ₂ vertical variability and fluxes from observations and a modeling framework		5
32	Assessing the ability of three land ecosystem models to simulate gross carbon uptake of forests from boreal to Mediterranean climate in Europe		5
31	Modelling fires in the terrestrial carbon balance by incorporating SPITFIRE into the global vegetation model ORCHIDEE [Part 1: Simulating historical global burned area and fire regime		5
30	Peak growing season patterns and climate extremes-driven responses of gross primary production estimated by satellite and process based models over North America. <i>Agricultural and Forest Meteorology</i> , 2021 , 298-299, 108292	5.8	5
29	Representing explicit budburst and senescence processes for evergreen conifers in global models. <i>Agricultural and Forest Meteorology</i> , 2019 , 266-267, 97-108	5.8	5
28	REDD Mitigation. <i>Procedia Environmental Sciences</i> , 2011 , 6, 50-59		4
27	Evaluation of a Dynamic Global Vegetation Model using time series of satellite vegetation indices 2011 ,		4
26	Simulating boreal forest carbon dynamics after stand-replacing fire disturbance: insights from a global process-based vegetation model		4
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