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List of Publications by Year
in descending order

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99 papers	18,444 citations	38742 50 h-index	34986 98 g-index
110 all docs	110 docs citations	110 times ranked	15947 citing authors

#	Article	IF	Citations
1	Europe-wide reduction in primary productivity caused by the heat and drought in 2003. Nature, 2005, 437, 529-533.	27.8	3,245
2	On the separation of net ecosystem exchange into assimilation and ecosystem respiration: review and improved algorithm. Global Change Biology, 2005, 11, 1424-1439.	9.5	2,778
3	Respiration as the main determinant of carbon balance in European forests. Nature, 2000, 404, 861-865.	27.8	1,438
4	The human footprint in the carbon cycle of temperate and boreal forests. Nature, 2007, 447, 849-851.	27.8	868
5	CO₂ balance of boreal, temperate, and tropical forests derived from a global database. Global Change Biology, 2007, 13, 2509-2537.	9.5	863
6	Temperature response of parameters of a biochemically based model of photosynthesis. II. A review of experimental data. Plant, Cell and Environment, 2002, 25, 1167-1179.	5.7	685
7	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. Scientific Data, 2020, 7, 225.	5.3	646
8	The likely impact of elevated [CO 2], nitrogen deposition, increased temperature and management on carbon sequestration in temperate and boreal forest ecosystems: a literature review. New Phytologist, 2007, 173, 463-480.	7.3	579
9	Evidence for soil water control on carbon and water dynamics in European forests during the extremely dry year: 2003. Agricultural and Forest Meteorology, 2007, 143, 123-145.	4.8	509
10	Reduction of ecosystem productivity and respiration during the European summer 2003 climate anomaly: a joint flux tower, remote sensing and modelling analysis. Global Change Biology, 2007, 13, 634-651.	9.5	486
11	Land management and land-cover change haveÂimpacts of similar magnitude on surfaceÂtemperature. Nature Climate Change, 2014, 4, 389-393.	18.8	404
12	The importance of phenology for the evaluation of impact of climate change on growth of boreal, temperate and Mediterranean forests ecosystems: an overview. International Journal of Biometeorology, 2000, 44, 67-75.	3.0	330
13	A generic model of forest canopy conductance dependent on climate, soil water availability and leaf area index. Annals of Forest Science, 2000, 57, 755-765.	2.0	248
14	The European carbon balance. Part 3: forests. Global Change Biology, 2010, 16, 1429-1450.	9.5	247
15	Measuring and modelling the transpiration of a maritime pine canopy from sap-flow data. Agricultural and Forest Meteorology, 1994, 71, 61-81.	4.8	230
16	Temperature response of parameters of a biochemically based model of photosynthesis. I. Seasonal changes in mature maritime pine (Pinus pinaster Ait.). Plant, Cell and Environment, 2002, 25, 1155-1165.	5.7	208
17	Transpiration of a 64-year-old maritime pine stand in Portugal. Oecologia, 1996, 107, 33-42.	2.0	179
18	Age-related decline in stand water use: sap flow and transpiration in a pine forest chronosequence. Agricultural and Forest Meteorology, 2005, 129, 105-119.	4.8	165

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19	Ground-based Network of NDVI measurements for tracking temporal dynamics of canopy structure and vegetation phenology in different biomes. Remote Sensing of Environment, 2012, 123, 234-245.	11.0	161
20	MuSICA , a CO2 , water and energy multilayer, multileaf pine forest model: evaluation from hourly to yearly time scales and sensitivity analysis. Global Change Biology, 2003, 9, 697-717.	9.5	139
21	Partitioning forest carbon fluxes with overstory and understory eddy-covariance measurements: A synthesis based on FLUXNET data. Agricultural and Forest Meteorology, 2007, 144, 14-31.	4.8	138
22	Evaluation of six process-based forest growth models using eddy-covariance measurements of CO2 and H2 O fluxes at six forest sites in Europe. Global Change Biology, 2002, 8, 213-230.	9.5	135
23	Paired comparisons of carbon exchange between undisturbed and regenerating stands in four managed forests in Europe. Global Change Biology, 2004, 10, 1707-1723.	9.5	135
24	Developing an empirical model of stand GPP with the LUE approach: analysis of eddy covariance data at five contrasting conifer sites in Europe. Global Change Biology, 2008, 14, 92-108.	9.5	132
25	Radial profiles of sap flow with increasing tree size in maritime pine. Tree Physiology, 2004, 24, 1285-1293.	3.1	123
26	Hydraulic responses to height growth in maritime pine trees. Plant, Cell and Environment, 2004, 27, 1077-1087.	5.7	120
27	Photosynthetic carbon isotope discrimination and its relationship to the carbon isotope signals of stem, soil and ecosystem respiration. New Phytologist, 2010, 188, 576-589.	7.3	119
28	Interception loss, throughfall and stemflow in a maritime pine stand. I. Variability of throughfall and stemflow beneath the pine canopy. Journal of Hydrology, 1992, 138, 449-467.	5.4	116
29	Thermal optimality of net ecosystem exchange of carbon dioxide and underlying mechanisms. New Phytologist, 2012, 194, 775-783.	7.3	111
30	The annual carbon budget of a French pine forest (Pinus pinaster) following harvest. Global Change Biology, 2003, 9, 1051-1065.	9.5	106
31	Modeling climate change effects on the potential production of French plains forests at the sub-regional level. Tree Physiology, 2005, 25, 813-823.	3.1	103
32	Allometric relationships for branch and tree woody biomass of Maritime pine (Pinus pinaster AÄ±Ì^t.). Forest Ecology and Management, 2002, 158, 71-83.	3.2	101
33	The CarboEurope Regional Experiment Strategy. Bulletin of the American Meteorological Society, 2006, 87, 1367-1380.	3.3	101
34	Sensitivity of water and carbon fluxes to climate changes from 1960 to 2100 in European forest ecosystems. Agricultural and Forest Meteorology, 2006, 141, 35-56.	4.8	100
35	A singleâ€substrate model to interpret intraâ€annual stable isotope signals in treeâ€ring cellulose. Plant, Cell and Environment, 2009, 32, 1071-1090.	5.7	100
36	In situ assessment of the velocity of carbon transfer by tracing ¹³C in trunk CO₂ efflux after pulse labelling: variations among tree species and seasons. New Phytologist, 2011, 190, 181-192.	7.3	89

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37	Stand age and species richness dampen interannual variation of ecosystem-level photosynthetic capacity. Nature Ecology and Evolution, 2017, 1, 48.	7.8	85
38	Interpreting the variations in xylem sap flux density within the trunk of maritime pine (Pinus pinaster) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Sciences ForestiÃ¨res, 1998, 55, 29-46.	1.2	82
39	Photosynthetic responses to phosphorus nutrition in two-year-old maritime pine seedlings. Tree Physiology, 1999, 19, 707-715.	3.1	81
40	Seasonal variations of belowground carbon transfer assessed by in situ ¹³CO₂ pulse labelling of trees. Biogeosciences, 2011, 8, 1153-1168.	3.3	81
41	Estimating the foliage area of Maritime pine (Pinus pinaster Aï¿½t.) branches and crowns with application to modelling the foliage area distribution in the crown. Annals of Forest Science, 2000, 57, 73-86.	2.0	80
42	Variability of the photosynthetic characteristics of mature needles within the crown of a 25-year-old Pinus pinaster. Tree Physiology, 1998, 18, 223-232.	3.1	79
43	Interception loss, throughfall and stemflow in a maritime pine stand. II. An application of Gash's analytical model of interception. Journal of Hydrology, 1992, 138, 469-485.	5.4	78
44	Comparison of two methods for estimating the evaporation of a Pinus pinaster (Ait.) stand: sap flow and energy balance with sensible heat flux measurements by an eddy covariance method. Agricultural and Forest Meteorology, 1991, 54, 49-66.	4.8	75
45	Future challenges in coupled Câ€“Nâ€“P cycle models for terrestrial ecosystems under global change: a review. Biogeochemistry, 2016, 131, 173-202.	3.5	75
46	Photosynthesis drives anomalies in net carbon-exchange of pine forests at different latitudes. Global Change Biology, 2007, 13, 2110-2127.	9.5	69
47	Carbon balance of coniferous forests growing in contrasting climates: Model-based analysis. Agricultural and Forest Meteorology, 2005, 131, 97-124.	4.8	65
48	ICOS eddy covariance flux-station site setup: a review. International Agrophysics, 2018, 32, 471-494.	1.7	59
49	Transpiration of a 64-year old maritime pine stand in Portugal. Oecologia, 1996, 107, 43-52.	2.0	56
50	Generalized biomass equations for the main aboveground biomass components of maritime pine across contrasting environments. Annals of Forest Science, 2011, 68, 443.	2.0	52
51	Carbon dioxide and energy flux partitioning between the understorey and the overstorey of a maritime pine forest during a year with reduced soil water availability. Agricultural and Forest Meteorology, 2008, 148, 1508-1523.	4.8	51
52	Variability of stem and branch maintenance respiration in a Pinus pinaster tree. Tree Physiology, 2003, 23, 227-236.	3.1	50
53	Ã‰tablissement dâ€™Ã©quations prÃ©disant la concentration en nutriments des compartiments de lâ€™arbre en vue dâ€™une amÃ©lioration des modÃ¨les dâ€™exportation de nutriments par rÃ©colte de biomasse. Annals of Forest Science, 2008, 65, 808-808.	2.0	44
54	The Integrated Carbon Observation System in Europe. Bulletin of the American Meteorological Society, 2022, 103, E855-E872.	3.3	44

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55	Manipulation de la disponibilitÃ© en eau et Ã©lÃ©ments minÃ©raux dans une plantation de pins maritimes: effet sur la croissance, la production, lâ€™allocation de la biomasse Ã la fermeture du couvert. Annals of Forest Science, 2008, 65, 814-814.	2.0	43
56	Paired comparison of water, energy and carbon exchanges over two young maritime pine stands (Pinus) Tj ETQq0 0 0 rgBT /Overlock 10 31, 903-921.	3.1	43
57	Evaluating the performance of land surface model ORCHIDEE-CANÂv1.0 on water and energy flux estimation with a single- and multi-layer energy budget scheme. Geoscientific Model Development, 2016, 9, 2951-2972.	3.6	43
58	Spatial and temporal CO₂ exchanges measured by Eddy Covariance over a temperate intertidal flat and their relationships to net ecosystem production. Biogeosciences, 2012, 9, 249-268.	3.3	39
59	Stomatal conductance and root-to-shoot signalling in chestnut saplings exposed to Phytophthora cinnamomi or partial soil drying. Functional Plant Biology, 2004, 31, 41.	2.1	35
60	Altered energy partitioning across terrestrial ecosystems in the European drought year 2018. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190524.	4.0	35
61	Ancillary vegetation measurements at ICOS ecosystem stations. International Agrophysics, 2018, 32, 645-664.	1.7	35
62	Carbon stable isotope ratio of phloem sugars in mature pine trees throughout the growing season: comparison of two extraction methods. Rapid Communications in Mass Spectrometry, 2009, 23, 2511-2518.	1.5	34
63	Within-ring Î´13C spatial variability and interannual variations in wood cellulose of two contrasting provenances of Pinus pinaster. Canadian Journal of Forest Research, 1998, 28, 766-773.	1.7	33
64	The PROFOUND Database for evaluating vegetation models and simulating climate impacts on European forests. Earth System Science Data, 2020, 12, 1295-1320.	9.9	33
65	Effects of variable root damage caused by Phytophthora cinnamomi on water relations of chestnut saplings. Annals of Forest Science, 2001, 58, 639-651.	2.0	31
66	Within-ring Î´¹³C spatial variability and interannual variations in wood cellulose of two contrasting provenances of Pinus pinaster. Canadian Journal of Forest Research, 1998, 28, 766-773.	1.7	29
67	DynACof: A process-based model to study growth, yield and ecosystem services of coffee agroforestry systems. Environmental Modelling and Software, 2020, 124, 104609.	4.5	26
68	Tamm Review: Light use efficiency and carbon storage in nutrient and water experiments on major forest plantation species. Forest Ecology and Management, 2016, 376, 333-342.	3.2	25
69	Carbon balance gradient in European forests: should we doubt â€˜surprisingâ€™ results? A reply to Piovesan & Adams. Journal of Vegetation Science, 2001, 12, 145-150.	2.2	24
70	Variation of the photosynthetic capacity across a chronosequence of maritime pine correlates with needle phosphorus concentration. Annals of Forest Science, 2005, 62, 537-543.	2.0	24
71	Measuring and modelling energy partitioning in canopies of varying complexity using MAESPA model. Agricultural and Forest Meteorology, 2018, 253-254, 203-217.	4.8	24
72	Agrometeorological Research and Applications Needed to Prepare Agriculture and Forestry to 21st Century Climate Change. Climatic Change, 2005, 70, 319-340.	3.6	23

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73	Does canopy mean nitrogen concentration explain variation in canopy light use efficiency across 14 contrasting forest sites?. Tree Physiology, 2012, 32, 200-218.	3.1	23
74	Hydro-ecological controls on dissolved carbon dynamics in groundwater and export to streams in a temperate pine forest. Biogeosciences, 2018, 15, 669-691.	3.3	23
75	Uncovering the critical soil moisture thresholds of plant water stress for European ecosystems. Global Change Biology, 2022, 28, 2111-2123.	9.5	23
76	Simultaneous measurements of CO₂ and water exchanges over three agroecosystems in South-West France. Biogeosciences, 2009, 6, 2957-2971.	3.3	22
77	Carbonâ€“nitrogen interactions in European forests and semi-natural vegetation â€“ Part 1: Fluxes and budgets of carbon, nitrogen and greenhouse gases from ecosystem monitoring and modelling. Biogeosciences, 2020, 17, 1583-1620.	3.3	21
78	Magnani et al. reply. Nature, 2008, 451, E3-E4.	27.8	20
79	The AQUI Soil Moisture Network for Satellite Microwave Remote Sensing Validation in South-Western France. Remote Sensing, 2018, 10, 1839.	4.0	20
80	Growth and uptake of mineral elements in response to sodium chloride of three provenances of maritime pine1. Journal of Plant Nutrition, 1995, 18, 243-256.	1.9	18
81	Osmotic adjustment in Pinus pinaster cuttings in response to a soil drying cycle. Annals of Forest Science, 2002, 59, 795-799.	2.0	18
82	Carbonâ€“nitrogen interactions in European forests and semi-natural vegetation â€“ Part 2: Untangling climatic, edaphic, management and nitrogen deposition effects on carbon sequestration potentials. Biogeosciences, 2020, 17, 1621-1654.	3.3	18
83	Interactive effects of phosphorus and light availability on early growth of maritime pine seedlings. Annals of Forest Science, 2005, 62, 575-583.	2.0	16
84	Observing the Forest Canopy with a New Ultra-Violet Compact Airborne Lidar. Sensors, 2010, 10, 7386-7403.	3.8	16
85	Dimensioning IRGA gas sampling systems: laboratory and field experiments. Atmospheric Measurement Techniques, 2016, 9, 1361-1367.	3.1	15
86	Importance of the vegetation-groundwater-stream continuum to understand transformation of biogenic carbon in aquatic systems â€“ A case study based on a pine-maize comparison in a lowland sandy watershed (Landes de Gascogne, SW France). Science of the Total Environment, 2019, 661, 613-629.	8.0	14
87	Modelling the nutrient cost of biomass harvesting under different silvicultural and climate scenarios in production forests. Forest Ecology and Management, 2018, 429, 642-653.	3.2	12
88	Method comparison of indirect assessments of understory leaf area index (LAIu): A case study across the extended network of ICOS forest ecosystem sites in Europe. Ecological Indicators, 2021, 128, 107841.	6.3	12
89	Retrieval and validation of forest background reflectivity from daily Moderate Resolution Imaging Spectroradiometer (MODIS) bidirectional reflectance distribution function (BRDF) data across European forests. Biogeosciences, 2021, 18, 621-635.	3.3	12
90	Soil sampling and preparation for monitoring soil carbon. International Agrophysics, 2018, 32, 633-643.	1.7	12

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91	Relations entre la microtopographie, les caractÃ©ristiques de la couverture morte et la rÃ©partition des essences dans une Ã©rabliÃ¨re Ã Bouleau jaune. Canadian Journal of Forest Research, 1988, 18, 1196-1202.	1.7	11
92	Modeling nitrous oxide emissions from tile-drained winter wheat fields in Central France. Nutrient Cycling in Agroecosystems, 2014, 98, 27-40.	2.2	9
93	The Aqui Network: Soil Moisture Sites in the â€œLes Landesâ€•Forest and Graves Vineyards (Bordeaux) Tj ETQq1 1 0.784314 rgBT /Ov		6
94	Energy, water and carbon exchanges in managed forest ecosystems: description, sensitivity analysis and evaluation of the INRAE GO+ model, version 3.0. Geoscientific Model Development, 2020, 13, 5973-6009.	3.6	6
95	Quantifying canopy conductance in a pine forest during drought from combined sap flow and canopy surface temperature measurements. Agricultural and Forest Meteorology, 2022, 323, 108997.	4.8	6
96	Water use of young maritime pine and Eucalyptus stands in response to climatic drying in south-western France. Plant Ecology and Diversity, 2013, 6, 57-71.	2.4	5
97	Environmental control of land-atmosphere CO₂ fluxes from temperate ecosystems: a statistical approach based on homogenized time series from five land-use types. Tellus, Series B: Chemical and Physical Meteorology, 2022, 72, 1784689.	1.6	4
98	Sampling and collecting foliage elements for the determination of the foliar nutrients in ICOS ecosystem stations. International Agrophysics, 2018, 32, 665-676.	1.7	4
99	Modeling the ecohydrological processes in the Landes de Gascogne, SW France. , 2012, , .		1