Marco Carrer

List of Publications by Citations

86 papers	4,685 citations	38 h-index	67 g-index
89 ext. papers	5,486 ext. citations	5.9 avg, IF	5.8 L-index

#	Paper	IF	Citations
86	Old World megadroughts and pluvials during the Common Era. *Science Advances*, **2015**, 1, e1500561	14.3	304
85	AGE-DEPENDENT TREE-RING GROWTH RESPONSES TO CLIMATE IN LARIX DECIDUA AND PINUS CEMBRA. *Ecology*, **2004**, 85, 730-740	4.6	275
84	Site- and species-specific responses of forest growth to climate across the European continent. *Global Ecology and Biogeography*, **2013**, 22, 706-717	6.1	248
83	Convergent tapering of xylem conduits in different woody species. *New Phytologist*, **2006**, 169, 279-90	9.8	204
82	Daily weather response of balsam fir (Abies balsamea (L.) Mill.) stem radius increment from dendrometer analysis in the boreal forests of Québec (Canada). *Trees - Structure and Function*, **2003**, 17, 477-484	2.6	189
81	Age-dependent xylogenesis in timberline conifers. *New Phytologist*, **2008**, 177, 199-208	9.8	180
80	Long-term change in the sensitivity of tree-ring growth to climate forcing in Larix decidua. *New Phytologist*, **2006**, 170, 861-71	9.8	174
79	ROXAS – A new tool to build centuries-long tracheid-lumen chronologies in conifers. *Dendrochronologia*, **2014**, 32, 290-293	2.8	148
78	Testing for tree-ring divergence in the European Alps. *Global Change Biology*, **2008**, 14, 2443-2453	11.4	120
77	Mediterranean drought fluctuation during the last 500 years based on tree-ring data. *Climate Dynamics*, **2008**, 31, 227-245	4.2	117
76	Distilling allometric and environmental information from time series of conduit size: the standardization issue and its relationship to tree hydraulic architecture. *Tree Physiology*, **2015**, 35, 27-33	4.2	109
75	Towards a functional and simplified allometry for estimating forest biomass. *Forest Ecology and Management*, **2006**, 237, 583-593	3.9	109
74	Distinct effects of climate warming on populations of silver fir (Abies alba) across Europe. *Journal of Biogeography*, **2015**, 42, 1150-1162	4.1	103
73	Cell size and wall dimensions drive distinct variability of earlywood and latewood density in Northern Hemisphere conifers. *New Phytologist*, **2017**, 216, 728-740	9.8	96
72	Quantitative Wood Anatomy-Practical Guidelines. *Frontiers in Plant Science*, **2016**, 7, 781	6.2	94
71	Individualistic and time-varying tree-ring growth to climate sensitivity. *PLoS ONE*, **2011**, 6, e22813	3.7	88
70	Wood anatomy and carbon-isotope discrimination support long-term hydraulic deterioration as a major cause of drought-induced dieback. *Global Change Biology*, **2016**, 22, 2125-37	11.4	86

69	Regional variability of climate-growth relationships in Pinus cembra high elevation forests in the Alps. *Journal of Ecology*, **2007**, 95, 1072-1083	6	85
68	Tree water relations and climatic variations at the alpine timberline: seasonal changes of sap flux and xylem water potential in Larix decidua Miller, Picea abies (L.) Karst. and Pinus cembra L. *Annales Des Sciences Forestières*, **1998**, 55, 159-172		82
67	Contrasting tree-ring growth to climate responses of Abies alba toward the southern limit of its distribution area. *Oikos*, **2010**, 119, 1515-1525	4	76
66	Three centuries of insect outbreaks across the European Alps. *New Phytologist*, **2009**, 182, 929-941	9.8	76
65	Placing unprecedented recent fir growth in a European-wide and Holocene-long context. *Frontiers in Ecology and the Environment*, **2014**, 12, 100-106	5.5	71
64	Hydraulic constraints limit height growth in trees at high altitude. *New Phytologist*, **2011**, 189, 241-52	9.8	70
63	How does climate influence xylem morphogenesis over the growing season? Insights from long-term intra-ring anatomy in Picea abies. *Annals of Botany*, **2017**, 119, 1011-1020	4.1	67
62	Ranking of tree-ring based temperature reconstructions of the past millennium. *Quaternary Science Reviews*, **2016**, 145, 134-151	3.9	66
61	Climate extremes and predicted warming threaten Mediterranean Holocene firs forests refugia. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E10142-E10150	11.5	64
60	Tree rings reveal globally coherent signature of cosmogenic radiocarbon events in 774 and 993 CE. *Nature Communications*, **2018**, 9, 3605	17.4	64
59	Linking wood anatomy and xylogenesis allows pinpointing of climate and drought influences on growth of coexisting conifers in continental Mediterranean climate. *Tree Physiology*, **2016**, 36, 502-12	4.2	58
58	Structure and Function of Intra-Annual Density Fluctuations: Mind the Gaps. *Frontiers in Plant Science*, **2016**, 7, 595	6.2	55
57	Site- and species-specific treeline responses to climatic variability in eastern Nepal Himalaya. *Dendrochronologia*, **2017**, 41, 44-56	2.8	51
56	500 years of regional forest growth variability and links to climatic extreme events in Europe. *Environmental Research Letters*, **2012**, 7, 045705	6.2	48
55	Contrasting effects of environmental change on the radial growth of co-occurring beech and fir trees across Europe. *Science of the Total Environment*, **2018**, 615, 1460-1469	10.2	46
54	From xylogenesis to tree rings: wood traits to investigate tree response to environmental changes. *IAWA Journal*, **2019**, 40, 155-182	2.3	45
53	Bridging long-term wood functioning and nitrogen deposition to better understand changes in tree growth and forest productivity. *Tree Physiology*, **2017**, 37, 1-3	4.2	44
52	Spatial analysis of structural and tree-ring related parameters in a timberline forest in the Italian Alps. *Journal of Vegetation Science*, **2001**, 12, 643-652	3.1	44

51	Tree-ring based spring precipitation reconstruction in western Nepal Himalaya since AD 1840. *Dendrochronologia*, **2017**, 42, 21-30	2.8	43
50	Divergent climate response on hydraulic-related xylem anatomical traits of Picea abies along a 900-m altitudinal gradient. *Tree Physiology*, **2015**, 35, 1378-87	4.2	43
49	The Blue ring anatomy and formation hypothesis of a new tree-ring anomaly in conifers. *Trees - Structure and Function*, **2015**, 29, 613-620	2.6	39
48	Tree-ring anatomy and carbon isotope ratio show both direct and legacy effects of climate on bimodal xylem formation in Pinus pinea. *Tree Physiology*, **2018**, 38, 1098-1109	4.2	38
47	Summer climate variability over the last 250years differently affected tree species radial growth in a mesic FagusAbiesPicea old-growth forest. *Forest Ecology and Management*, **2014**, 320, 21-29	3.9	38
46	Retrospective Analysis of Wood Anatomical Traits Reveals a Recent Extension in Tree Cambial Activity in Two High-Elevation Conifers. *Frontiers in Plant Science*, **2017**, 8, 737	6.2	38
45	New research perspectives from a novel approach to quantify tracheid wall thickness. *Tree Physiology*, **2017**, 37, 976-983	4.2	36
44	Xylem anatomical traits reveal different strategies of two Mediterranean oaks to cope with drought and warming. *Environmental and Experimental Botany*, **2017**, 133, 128-138	5.9	33
43	Energy, Forest, and Indoor Air Pollution Models for Sagarmatha National Park and Buffer Zone, Nepal. *Mountain Research and Development*, **2010**, 30, 113-126	1.4	31
42	Disentangling the climate-driven bimodal growth pattern in coastal and continental Mediterranean pine stands. *Science of the Total Environment*, **2018**, 615, 1518-1526	10.2	30
41	An allometry-based approach for understanding forest structure, predicting tree-size distribution and assessing the degree of disturbance. *Proceedings of the Royal Society B: Biological Sciences*, **2013**, 280, 20122375	4.4	30
40	Significant mean and extreme climate sensitivity of Norway spruce and silver fir at mid-elevation mesic sites in the Alps. *PLoS ONE*, **2012**, 7, e50755	3.7	28
39	The Imprint of Extreme Climate Events in Century-Long Time Series of Wood Anatomical Traits in High-Elevation Conifers. *Frontiers in Plant Science*, **2016**, 7, 683	6.2	28
38	Climate signal age effects in boreal tree-rings: Lessons to be learned for paleoclimatic reconstructions. *Quaternary Science Reviews*, **2016**, 142, 164-172	3.9	28
37	Tree spatial patterns and stand attributes in temperate forests: The importance of plot size, sampling design, and null model. *Forest Ecology and Management*, **2018**, 407, 125-134	3.9	28
36	Diverging shrub and tree growth from the Polar to the Mediterranean biomes across the European continent. *Global Change Biology*, **2017**, 23, 3169-3180	11.4	26
35	A Combined Tree Ring and Vegetation Model Assessment of European Forest Growth Sensitivity to Interannual Climate Variability. *Global Biogeochemical Cycles*, **2018**, 32, 1226	5.9	25
34	Convergent spacetime tree regeneration patterns along an elevation gradient at high altitude in the Alps. *Forest Ecology and Management*, **2013**, 304, 1-9	3.9	25

33	Self-similarity and scaling in forest communities. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 7658-62	11.5	23
32	Spatial structure in four Norway spruce stands with different management history in the Alps and Carpathians. *Silva Fennica*, **2011**, 45,	1.9	23
31	Winter precipitation effect in a mid-latitude temperature-limited environment: the case of common juniper at high elevation in the Alps. *Environmental Research Letters*, **2014**, 9, 104021	6.2	21
30	Winter precipitation - not summer temperature - is still the main driver for Alpine shrub growth. *Science of the Total Environment*, **2019**, 682, 171-179	10.2	20
29	High-altitude forest sensitivity to global warming: results from long-term and short-term analyses in the eastern italian alps **1998**, 171-189		19
28	Wood anatomical traits in black spruce reveal latent water constraints on the boreal forest. *Global Change Biology*, **2020**, 26, 1767-1777	11.4	18
27	Global fading of the temperature-growth coupling at alpine and polar treelines. *Global Change Biology*, **2021**, 27, 1879-1889	11.4	17
26	Human interactions with forest landscape in the Khumbu valley, Nepal. *Anthropocene*, **2014**, 6, 39-47	3.9	16
25	Wood anatomical traits highlight complex temperature influence on Pinus cembra at high elevation in the Eastern Alps. *International Journal of Biometeorology*, **2018**, 62, 1745-1753	3.7	15
24	Xylem anatomical responses to climate variability in Himalayan birch trees at one of the world highest forest limit. *Perspectives in Plant Ecology, Evolution and Systematics*, **2018**, 33, 34-41	3	14
23	Moisture-driven shift in the climate sensitivity of white spruce xylem anatomical traits is coupled to large-scale oscillation patterns across northern treeline in northwest North America. *Global Change Biology*, **2020**, 26, 1842-1856	11.4	14
22	Commentary to Wetter et al. (2014): Limited tree-ring evidence for a 1540 European Megadrought *Climatic Change*, **2015**, 131, 183-190	4.5	13
21	Axial vessel widening in arborescent monocots. *Tree Physiology*, **2014**, 34, 137-45	4.2	13
20	Growth, wood anatomy and stable isotopes show species-specific couplings in three Mexican conifers inhabiting drought-prone areas. *Science of the Total Environment*, **2020**, 698, 134055	10.2	13
19	Immediate and carry-over effects of insect outbreaks on vegetation growth in West Greenland assessed from cells to satellite. *Journal of Biogeography*, **2020**, 47, 87-100	4.1	12
18	Shifts of irrigation in Aleppo pine under semi-arid conditions reveal uncoupled growth and carbon storage and legacy effects on wood anatomy. *Agricultural and Forest Meteorology*, **2018**, 253-254, 225-232	5.8	11
17	Tree rings and stable isotopes reveal the tree-history prior to insect defoliation on Norway spruce (Picea abies (L.) Karst.). *Forest Ecology and Management*, **2014**, 319, 99-106	3.9	11
16	Influences of tree age and tree structure on the macrolichen Letharia vulpina: A case study in the Italian Alps. *Ecoscience*, **2008**, 15, 423-428	1.1	11

15	Precipitation variability differently affects radial growth, xylem traits and ring porosity of three Mediterranean oak species at xeric and mesic sites. *Science of the Total Environment*, **2020**, 699, 134285	10.2	9
14	Long-Term Impacts of Defoliator Outbreaks on Larch Xylem Structure and Tree-Ring Biomass. *Frontiers in Plant Science*, **2020**, 11, 1078	6.2	7
13	Scots pine trees react to drought by increasing xylem and phloem conductivities. *Tree Physiology*, **2020**, 40, 774-781	4.2	6
12	Effects of climate change on treeline trees in Sagarmatha (Mt. Everest, Central Himalaya). *Journal of Vegetation Science*, **2020**, 31, 1144-1153	3.1	6
11	Dispersal patterns of meiospores shape population spatial structure of saxicolous lichens. *Lichenologist*, **2017**, 49, 397-413	1.1	4
10	Juniperus communis populations exhibit low variability in hydraulic safety and efficiency. *Tree Physiology*, **2020**, 40, 1668-1679	4.2	4
9	Fine-scale population dynamics help to elucidate community assembly patterns of epiphytic lichens in alpine forests. *Fungal Ecology*, **2016**, 24, 21-26	4.1	4
8	Retrospective analysis of wood anatomical traits and tree-ring isotopes suggests site-specific mechanisms triggering Araucaria araucana drought-induced dieback. *Global Change Biology*, **2021**, 27, 6394-6408	11.4	4
7	Growing faster, longer or both? Modelling plastic response of Juniperus communis growth phenology to climate change. *Global Ecology and Biogeography*, **2021**, 30, 2229	6.1	3
6	Contrasting Impacts of Climate Warming on Coastal Old-Growth Tree Species Reveal an Early Warning of Forest Decline. *Frontiers in Forests and Global Change*, **2022**, 4,	3.7	2
5	Chemical signature of Eurois occulta L. outbreaks in the xylem cell wall of Salix glauca L. in Greenland. *Science of the Total Environment*, **2021**, 764, 144607	10.2	1
4	Q-NET a new scholarly network on quantitative wood anatomy. *Dendrochronologia*, **2021**, 70, 125890	2.8	1
3	Influences of summer warming and nutrient availability on Salix glauca L. growth in Greenland along an ice to sea gradient.. *Scientific Reports*, **2022**, 12, 3077	4.9	1
2	Transient Effects of Snow Cover Duration on Primary Growth and Leaf Traits in a Tundra Shrub.. *Frontiers in Plant Science*, **2022**, 13, 822901	6.2	1
1	Xylem traits of peatland Scots pines reveal a complex climatic signal: A study in the Eastern Italian Alps. *Dendrochronologia*, **2021**, 67, 125824	2.8	