

# Jordi Voltas

## List of Publications by Year in descending order

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109  
papers

4,761  
citations

94433

37  
h-index

114465

63  
g-index

111  
all docs

111  
docs citations

111  
times ranked

5489  
citing authors

#	ARTICLE	IF	CITATIONS
1	The combined effects of a long-term experimental drought and an extreme drought on the use of plant-water sources in a Mediterranean forest. <i>Global Change Biology</i> , 2015, 21, 1213-1225.	9.5	240
2	Water management practices and climate in ancient agriculture: inferences from the stable isotope composition of archaeobotanical remains. <i>Vegetation History and Archaeobotany</i> , 2005, 14, 510-517.	2.1	185
3	$\delta^{13}\text{C}$ and tree-ring width reflect different drought responses in <i>Quercus ilex</i> and <i>Pinus halepensis</i> . <i>Oecologia</i> , 2003, 137, 512-518.	2.0	182
4	Identification of Ancient Irrigation Practices based on the Carbon Isotope Discrimination of Plant Seeds: a Case Study from the South-East Iberian Peninsula. <i>Journal of Archaeological Science</i> , 1997, 24, 729-740.	2.4	137
5	Mixed models including environmental covariables for studying QTL by environment interaction. <i>Euphytica</i> , 2004, 137, 139-145.	1.2	128
6	Forests synchronize their growth in contrasting Eurasian regions in response to climate warming. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 662-667.	7.1	126
7	Chlorophyll fluorescence as a selection criterion for grain yield in durum wheat under Mediterranean conditions. <i>Field Crops Research</i> , 1998, 55, 209-223.	5.1	121
8	Isotope-ratio infrared spectroscopy: a reliable tool for the investigation of plant-water sources?. <i>New Phytologist</i> , 2015, 207, 914-927.	7.3	120
9	Combined use of $\delta^{13}\text{C}$ , $\delta^{18}\text{O}$ and $\delta^{15}\text{N}$ tracks nitrogen metabolism and genotypic adaptation of durum wheat to salinity and water deficit. <i>New Phytologist</i> , 2012, 194, 230-244.	7.3	115
10	The historical perspective of dryland agriculture: lessons learned from 10 000 years of wheat cultivation. <i>Journal of Experimental Botany</i> , 2006, 58, 131-145.	4.8	114
11	A retrospective, dual-isotope approach reveals individual predispositions to winter-drought induced tree dieback in the southernmost distribution limit of <i>Pinus sylvestris</i> . <i>Plant, Cell and Environment</i> , 2013, 36, 1435-1448.	5.7	109
12	Stable carbon and nitrogen isotopes and quality traits of fossil cereal grains provide clues on sustainability at the beginnings of Mediterranean agriculture. <i>Rapid Communications in Mass Spectrometry</i> , 2008, 22, 1653-1663.	1.5	106
13	Intraspecific variation in the use of water sources by the circum-Mediterranean conifer <i>Pinus halepensis</i> . <i>New Phytologist</i> , 2015, 208, 1031-1041.	7.3	105
14	Genotype by environment interaction for grain yield and carbon isotope discrimination of barley in Mediterranean Spain. <i>Australian Journal of Agricultural Research</i> , 1999, 50, 1263.	1.5	102
15	Climate-related variability in carbon and oxygen stable isotopes among populations of Aleppo pine grown in common-garden tests. <i>Trees - Structure and Function</i> , 2008, 22, 759-769.	1.9	96
16	Carbon and oxygen isotope ratios in wood constituents of <i>Pinus halepensis</i> as indicators of precipitation, temperature and vapour pressure deficit. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2005, 57, 164-173.	1.6	93
17	From xylogenesis to tree rings: wood traits to investigate tree response to environmental changes. <i>IAWA Journal</i> , 2019, 40, 155-182.	2.7	85
18	Genetic and Environmental Variation in Malting and Feed Quality of Barley. <i>Journal of Cereal Science</i> , 1997, 25, 37-47.	3.7	81

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19	Crop water availability in early agriculture: evidence from carbon isotope discrimination of seeds from a tenth millennium BP site on the Euphrates. <i>Global Change Biology</i> , 1999, 5, 201-212.	9.5	81
20	Growth and carbon isotopes of Mediterranean trees reveal contrasting responses to increased carbon dioxide and drought. <i>Oecologia</i> , 2014, 174, 307-317.	2.0	81
21	Carbon isotope composition of fossil charcoal reveals aridity changes in the NW Mediterranean Basin. <i>Global Change Biology</i> , 2006, 12, 1253-1266.	9.5	72
22	Agronomic conditions and crop evolution in ancient Near East agriculture. <i>Nature Communications</i> , 2014, 5, 3953.	12.8	72
23	Carbon and oxygen isotope ratios in wood constituents of <i>Pinus halepensis</i> as indicators of precipitation, temperature and vapour pressure deficit. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 57, 164.	1.6	68
24	Use of biplot analysis and factorial regression for the investigation of superior genotypes in multi-environment trials. <i>European Journal of Agronomy</i> , 2005, 22, 309-324.	4.1	66
25	Effect of salinity and water stress during the reproductive stage on growth, ion concentrations, $\delta^{13}\text{C}$ , and $\delta^{15}\text{N}$ of durum wheat and related amphiploids. <i>Journal of Experimental Botany</i> , 2010, 61, 3529-3542.	4.8	64
26	Relationships of grain $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ with wheat phenology and yield under water-limited conditions. <i>Annals of Applied Biology</i> , 2007, 150, 207-215.	2.5	61
27	Does higher yield potential improve barley performance in Mediterranean conditions?. <i>Field Crops Research</i> , 2005, 91, 149-160.	5.1	60
28	Mineral accumulation, carbon isotope discrimination and indirect selection for grain yield in two-rowed barley grown under semiarid conditions. <i>European Journal of Agronomy</i> , 1998, 9, 147-155.	4.1	57
29	Variation in the access to deep soil water pools explains tree-to-tree differences in drought-triggered dieback of Mediterranean oaks. <i>Tree Physiology</i> , 2020, 40, 591-604.	3.1	55
30	Use of carbon isotope composition in monitoring environmental changes. <i>Management of Environmental Quality</i> , 2003, 14, 82-98.	4.3	54
31	Changes over time in the adaptation of barley releases in north-eastern Spain. <i>Plant Breeding</i> , 1998, 117, 531-535.	1.9	53
32	Remobilization of Pre-Anthesis Assimilates to the Grain for Grain Only and Dual-Purpose (Forage and) Tj ETQq0 0.0 rgBT /Overlock 10	1.8	53
33	Dynamics of competition over water in a mixed oak-pine Mediterranean forest: Spatio-temporal and physiological components. <i>Forest Ecology and Management</i> , 2016, 382, 214-224.	3.2	51
34	Morphological and functional variability in the root system of <i>Quercus ilex</i> L. subject to confinement: consequences for afforestation. <i>Annals of Forest Science</i> , 2006, 63, 425-430.	2.0	50
35	Integrating statistical and ecophysiological analyses of genotype by environment interaction for grain filling of barley l.. <i>Field Crops Research</i> , 1999, 62, 63-74.	5.1	49
36	Patterns of Barley Grain Development in Spain and Scotland and Their Implications for Malting Quality. <i>Cereal Chemistry</i> , 1997, 74, 456-461.	2.2	46

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37	Unravelling spatiotemporal tree-ring signals in Mediterranean oaks: a variance-covariance modelling approach of carbon and oxygen isotope ratios. <i>Tree Physiology</i> , 2014, 34, 819-838.	3.1	42
38	Holocene changes in precipitation seasonality in the western Mediterranean Basin: a multi-species approach using $\delta^{13}\text{C}$ of archaeobotanical remains. <i>Journal of Quaternary Science</i> , 2012, 27, 192-202.	2.1	40
39	Grain size and nitrogen accumulation in sink-reduced barley under Mediterranean conditions. <i>Field Crops Research</i> , 1997, 52, 117-126.	5.1	39
40	Integrating statistical and ecophysiological analyses of genotype by environment interaction for grain filling of barley II. <i>Field Crops Research</i> , 1999, 62, 75-84.	5.1	39
41	Increasing drought effects on five European pines modulate $\delta^{13}\text{C}$ growth coupling along a Mediterranean altitudinal gradient. <i>Functional Ecology</i> , 2017, 31, 1359-1370.	3.6	39
42	Ecotypic variation and stability in growth performance of the thermophilic conifer <i>Pinus halepensis</i> across the Mediterranean basin. <i>Forest Ecology and Management</i> , 2018, 424, 205-215.	3.2	37
43	Estimating grain weight in archaeological cereal crops: a quantitative approach for comparison with current conditions. <i>Journal of Archaeological Science</i> , 2004, 31, 1635-1642.	2.4	35
44	Spatio-temporal patterns of tree growth as related to carbon isotope fractionation in European forests under changing climate. <i>Global Ecology and Biogeography</i> , 2019, 28, 1295-1309.	5.8	35
45	Intraspecific variation in juvenile tree growth under elevated $\text{CO}_2$ alone and with $\text{O}_3$ : a meta-analysis. <i>Tree Physiology</i> , 2016, 36, 682-693.	3.1	34
46	Intra-specific association between carbon isotope composition and productivity in woody plants: A meta-analysis. <i>Plant Science</i> , 2016, 251, 110-118.	3.6	34
47	Performance of hybrid poplar clones in short rotation coppice in Mediterranean environments: analysis of genotypic stability. <i>GCB Bioenergy</i> , 2014, 6, 661-671.	5.6	33
48	Carbon Isotope Discrimination, Gas Exchange and Stem Growth of Four Euramerican Hybrid Poplars under Different Watering Regimes. <i>New Forests</i> , 2006, 31, 435-451.	1.7	32
49	Drought-induced mortality selectively affects Scots pine trees that show limited intrinsic water-use efficiency responsiveness to raising atmospheric $\text{CO}_2$ . <i>Functional Plant Biology</i> , 2014, 41, 244.	2.1	32
50	Circadian rhythms have significant effects on leaf-to-canopy scale gas exchange under field conditions. <i>GigaScience</i> , 2016, 5, 43.	6.4	31
51	Mechanisms of Malt Extract Development in Barleys from Different European Regions: II. Effect of Barley Hordein Fractions on Malt Extract Yield. <i>Journal of the Institute of Brewing</i> , 2000, 106, 117-124.	2.3	30
52	A map of autumn precipitation for the third millennium BP in the Eastern Iberian Peninsula from charcoal carbon isotopes. <i>Journal of Geochemical Exploration</i> , 2009, 102, 157-165.	3.2	30
53	Using unmanned aerial vehicle-based multispectral, RGB and thermal imagery for phenotyping of forest genetic trials: A case study in <i>Pinus halepensis</i> . <i>Annals of Applied Biology</i> , 2019, 174, 262-276.	2.5	29
54	Building bridges: an integrated strategy for sustainable food production throughout the value chain. <i>Molecular Breeding</i> , 2013, 32, 743-770.	2.1	28

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55	Carbon isotope discrimination, radial growth, and NDVI share spatiotemporal responses to precipitation in Aleppo pine. <i>Trees - Structure and Function</i> , 2015, 29, 223-233.	1.9	27
56	Drought stress modifies early effective resistance and induced chemical defences of Aleppo pine against a chewing insect herbivore. <i>Environmental and Experimental Botany</i> , 2019, 162, 550-559.	4.2	27
57	Endogenous circadian rhythms in pigment composition induce changes in photochemical efficiency in plant canopies. <i>Plant, Cell and Environment</i> , 2017, 40, 1153-1162.	5.7	26
58	Reconstructing Bronze Age diets and farming strategies at the early Bronze Age sites of La Bastida and Gatas (southeast Iberia) using stable isotope analysis. <i>PLoS ONE</i> , 2020, 15, e0229398.	2.5	26
59	Minimum wood density of conifers portrays changes in early season precipitation at dry and cold Eurasian regions. <i>Trees - Structure and Function</i> , 2017, 31, 1423-1437.	1.9	25
60	Warming Effects on <i>Pinus sylvestris</i> in the Coldâ€“Dry Siberian Forestâ€“Steppe: Positive or Negative Balance of Trade?. <i>Forests</i> , 2017, 8, 490.	2.1	25
61	Growth, wood anatomy and stable isotopes show species-specific couplings in three Mexican conifers inhabiting drought-prone areas. <i>Science of the Total Environment</i> , 2020, 698, 134055.	8.0	25
62	Climate at the onset of western Mediterranean agriculture expansion: Evidence from stable isotopes of sub-fossil oak tree rings in Spain. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2011, 299, 541-551.	2.3	24
63	High-carotenoid maize: development of plant biotechnology prototypes for human and animal health and nutrition. <i>Phytochemistry Reviews</i> , 2018, 17, 195-209.	6.5	24
64	Hydraulic and photosynthetic limitations prevail over root nonâ€“structural carbohydrate reserves as drivers of resprouting in two Mediterranean oaks. <i>Plant, Cell and Environment</i> , 2020, 43, 1944-1957.	5.7	24
65	Intraspecific responses to climate reveal nonintuitive warming impacts on a widespread thermophilic conifer. <i>New Phytologist</i> , 2020, 228, 525-540.	7.3	24
66	Growth and Final Weight of Central and Lateral Barley Grains under Mediterranean Conditions as Influenced by Sink Strength. <i>Crop Science</i> , 1998, 38, 84-89.	1.8	23
67	Night and day â€“ Circadian regulation of night-time dark respiration and light-enhanced dark respiration in plant leaves and canopies. <i>Environmental and Experimental Botany</i> , 2017, 137, 14-25.	4.2	23
68	DendroSync: An R package to unravel synchrony patterns in tree-ring networks. <i>Dendrochronologia</i> , 2018, 47, 17-22.	2.2	22
69	Phenotypic integration and life history strategies among populations of <i>Pinus halepensis</i> : an insight through structural equation modelling. <i>Annals of Botany</i> , 2019, 124, 1161-1171.	2.9	22
70	Phenotypic plasticity and climatic adaptation in an Atlantic maritime pine breeding population. <i>Annals of Forest Science</i> , 2012, 69, 477-487.	2.0	20
71	A roadmap to disentangling ecogeographical patterns of spatial synchrony in dendrosciences. <i>Trees - Structure and Function</i> , 2018, 32, 359-370.	1.9	20
72	Grain weight changes over time in ancient cereal crops: Potential roles of climate and genetic improvement. <i>Journal of Cereal Science</i> , 2006, 44, 323-332.	3.7	19

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73	Genetic variation for carbon isotope composition in <i>Juglans regia</i> L.: relationships with growth, phenology and climate of origin. <i>Annals of Forest Science</i> , 2009, 66, 413-413.	2.0	19
74	Multienvironment Evaluation of <i>Pinus pinaster</i> Provenances: Evidence of Genetic Trade-Offs between Adaptation to Optimal Conditions and Resistance to the Maritime Pine Bast Scale ( <i>Matsucoccus feytaudi</i> ). <i>Forest Science</i> , 2016, 62, 553-563.	1.0	19
75	Quarantining the Sahara desert: growth and water-use efficiency of Aleppo pine in the Algerian Green Barrier. <i>European Journal of Forest Research</i> , 2017, 136, 139-152.	2.5	19
76	Recent loss of sensitivity to summer temperature constrains tree growth synchrony among boreal Eurasian forests. <i>Agricultural and Forest Meteorology</i> , 2019, 268, 318-330.	4.8	18
77	Grain yield, carbon isotope discrimination and mineral content in mature kernels of barley under irrigated and rainfed conditions. <i>Agronomy for Sustainable Development</i> , 1994, 14, 127-132.	0.8	18
78	Phenotypic diversity and delimitation between wild and cultivated forms of the genus <i>Pyrus</i> in North-eastern Spain based on morphometric analyses. <i>Genetic Resources and Crop Evolution</i> , 2007, 54, 1473-1487.	1.6	17
79	Aged but withstanding: Maintenance of growth rates in old pines is not related to enhanced water-use efficiency. <i>Agricultural and Forest Meteorology</i> , 2017, 243, 43-54.	4.8	16
80	Morpho-physiological variability of <i>Pinus nigra</i> populations reveals climate-driven local adaptation but weak water use differentiation. <i>Environmental and Experimental Botany</i> , 2019, 166, 103828.	4.2	15
81	Stable isotopes in arid and semi-arid <i>Investigaci3n Agraria: Sistemas y Recursos Forestales. Investigacion Agraria Sistemas Y Recursos Forestales</i> , 2005, 14, 371.	0.4	15
82	Crown bulk density and fuel moisture dynamics in <i>Pinus pinaster</i> stands are neither modified by thinning nor captured by the Forest Fire Weather Index. <i>Annals of Forest Science</i> , 2017, 74, 1.	2.0	14
83	Scarce population genetic differentiation but substantial spatiotemporal phenotypic variation of water-use efficiency in <i>Pinus sylvestris</i> at its western distribution range. <i>European Journal of Forest Research</i> , 2018, 137, 863-878.	2.5	14
84	Bridging the genotype-phenotype gap for a Mediterranean pine by semi-automatic crown identification and multispectral imagery. <i>New Phytologist</i> , 2021, 229, 245-258.	7.3	14
85	Isoscapes of tree-ring carbon-13 perform like meteorological networks in predicting regional precipitation patterns. <i>Journal of Geophysical Research C: Biogeosciences</i> , 2013, 118, 352-360.	3.0	13
86	Interpreting genotype-environment interaction for biomass production in hybrid poplars under short-rotation coppice in Mediterranean environments. <i>GCB Bioenergy</i> , 2016, 8, 1124-1135.	5.6	12
87	A trade-off between embolism resistance and bark thickness in conifers: are drought and fire adaptations antagonistic?. <i>Plant Ecology and Diversity</i> , 2018, 11, 253-258.	2.4	12
88	Retrospective Evaluation of Parental Selection in Nursery Tests of <i>Juglans regia</i> L. Using a Mixed Model Analysis. <i>Silvae Genetica</i> , 2004, 53, 26-33.	0.8	12
89	Image Analysis of Grain and Chemical Composition of the Barley Plant as Predictors of Malting Quality in Mediterranean Environments. <i>Cereal Chemistry</i> , 1998, 75, 755-761.	2.2	10
90	Agricultural expansion and settlement economy in Tell Halula (Mid-Euphrates valley): A diachronic study from early Neolithic to present. <i>Journal of Arid Environments</i> , 2012, 86, 104-112.	2.4	10

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91	Reconstruction of Climate and Crop Conditions in the Past Based on the Carbon Isotope Signature of Archaeobotanical Remains. <i>Journal of Nano Education (Print)</i> , 2007, 1, 319-332.	0.3	9
92	Needle Senescence Affects Fire Behavior in Aleppo Pine ( <i>Pinus halepensis</i> Mill.) Stands: A Simulation Study. <i>Forests</i> , 2020, 11, 1054.	2.1	9
93	Dendroecological and genetic insights for future management of an old-planted forest of the endangered Mediterranean fir <i>Abies pinsapo</i> . <i>Dendrochronologia</i> , 2020, 63, 125754.	2.2	9
94	Plant's gypsum affinity shapes responses to specific edaphic constraints without limiting responses to other general constraints. <i>Plant and Soil</i> , 2021, 462, 297-309.	3.7	9
95	Stable carbon isotopes in archaeological plant remains. <i>Stratigraphy &amp; Timescales</i> , 2020, , 107-145.	0.5	8
96	Ground-Penetrating Radar as phenotyping tool for characterizing intraspecific variability in root traits of a widespread conifer. <i>Plant and Soil</i> , 2021, 468, 319-336.	3.7	8
97	Shared drought responses among conifer species in the middle Siberian taiga are uncoupled from their contrasting water-use efficiency trajectories. <i>Science of the Total Environment</i> , 2020, 720, 137590.	8.0	7
98	Weather as main driver for masting and stem growth variation in stone pine supports compatible timber and nut co-production. <i>Agricultural and Forest Meteorology</i> , 2021, 298-299, 108287.	4.8	7
99	Reconstruction of Climate and Crop Conditions in the Past Based on the Carbon Isotope Signature of Archaeobotanical Remains. , 2007, , 319-332.		7
100	A semi-mechanistic model for predicting daily variations in species-level live fuel moisture content. <i>Agricultural and Forest Meteorology</i> , 2022, 323, 109022.	4.8	7
101	Stable isotope views on ecosystem function: challenging or challenged?. <i>Biology Letters</i> , 2010, 6, 287-289.	2.3	6
102	Circadian rhythms regulate the environmental responses of net CO <sub>2</sub> exchange in bean and cotton canopies. <i>Agricultural and Forest Meteorology</i> , 2017, 239, 185-191.	4.8	6
103	Point processes statistics of stable isotopes: analysing water uptake patterns in a mixed stand of Aleppo pine and Holm oak. <i>Forest Systems</i> , 2015, 24, 009.	0.3	5
104	Direct and correlated responses to artificial selection for growth and water-use efficiency in a Mediterranean pine. <i>American Journal of Botany</i> , 2021, 108, 102-112.	1.7	4
105	Population differentiation in climate sensitivity of resin duct formation during growth resumption in <i>Pinus pinaster</i> . <i>Dendrochronologia</i> , 2021, 67, 125839.	2.2	3
106	Oak Competition Dominates Interspecific Interactions in Growth and Water-Use Efficiency in a Mixed Pine-Oak Mediterranean Forest. <i>Forests</i> , 2021, 12, 1093.	2.1	3
107	Using Water Stable Isotopes to Trace Water Sources of Three Typical Japanese Tree Species under Heavy Rainfall Conditions. <i>Open Journal of Forestry</i> , 2020, 10, 7-21.	0.3	2
108	Are global forests performing in sync? The need to account for spatiotemporal biases in tree-ring records. <i>Journal of Biogeography</i> , 2021, 48, 2961-2965.	3.0	1

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109	Straightening the crooked: intraspecific divergence of stem posture control and associated trade-offs in a model conifer. <i>Journal of Experimental Botany</i> , 2022, 73, 1222-1235.	4.8	1