Guillaume Lobet

List of Publications by Year
in descending order

42 papers	2,936 citations	304743 22 h-index	302126 39 g-index
59 all docs	59 docs citations	59 times ranked	3853 citing authors

#	Article	IF	Citations
1	A Novel Image-Analysis Toolbox Enabling Quantitative Analysis of Root System Architecture Â Â. Plant Physiology, 2011, 157, 29-39.	4.8	430
2	FLOR-ID: an interactive database of flowering-time gene networks inArabidopsis thaliana. Nucleic Acids Research, 2016, 44, D1167-D1171.	14.5	308
3	Novel scanning procedure enabling the vectorization of entire rhizotron-grown root systems. Plant Methods, 2013, 9, 1.	4.3	214
4	GLO-Roots: an imaging platform enabling multidimensional characterization of soil-grown root systems. ELife, 2015, 4, .	6.0	212
5	An online database for plant image analysis software tools. Plant Methods, 2013, 9, 38.	4.3	175
6	Model-assisted integration of physiological and environmental constraints affecting the dynamic and spatial patterns of root water uptake from soils. Journal of Experimental Botany, 2010, 61, 2145-2155.	4.8	166
7	Environmental Control of Root System Biology. Annual Review of Plant Biology, 2016, 67, 619-642.	18.7	142
8	Image Analysis in Plant Sciences: Publish Then Perish. Trends in Plant Science, 2017, 22, 559-566.	8.8	124
9	CRootBox: a structuralâ€“functional modelling framework for root systems. Annals of Botany, 2018, 121, 1033-1053.	2.9	123
10	Plant Water Uptake in Drying Soils. Plant Physiology, 2014, 164, 1619-1627.	4.8	122
11	Root System Markup Language: Toward a Unified Root Architecture Description Language. Plant Physiology, 2015, 167, 617-627.	4.8	105
12	Going with the Flow: Multiscale Insights into the Composite Nature of Water Transport in Roots. Plant Physiology, 2018, 178, 1689-1703.	4.8	63
13	â€œRhizoponicsâ€ a novel hydroponic rhizotron for root system analyses on mature Arabidopsis thaliana plants. Plant Methods, 2015, 11, 3.	4.3	61
14	Using a Structural Root System Model to Evaluate and Improve the Accuracy of Root Image Analysis Pipelines. Frontiers in Plant Science, 2017, 8, 447.	3.6	52
15	Impact of crop residue management on crop production and soil chemistry after seven years of crop rotation in temperate climate, loamy soils. PeerJ, 2018, 6, e4836.	2.0	45
16	Integrating roots into a whole plant network of flowering time genes in Arabidopsis thaliana. Scientific Reports, 2016, 6, 29042.	3.3	40
17	EZ-Root-VIS: A Software Pipeline for the Rapid Analysis and Visual Reconstruction of Root System Architecture. Plant Physiology, 2018, 177, 1368-1381.	4.8	38
18	CPlantBox, a whole-plant modelling framework for the simulation of water- and carbon-related processes. In Silico Plants, 2020, 2, .	1.9	37

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19	Root Systems Biology: Integrative Modeling across Scales, from Gene Regulatory Networks to the Rhizosphere. Plant Physiology, 2013, 163, 1487-1503.	4.8	34
20	Inflorescence development in tomato: gene functions within a zigzag model. Frontiers in Plant Science, 2014, 5, 121.	3.6	29
21	An evaluation of inexpensive methods for root image acquisition when using rhizotrons. Plant Methods, 2017, 13, 11.	4.3	29
22	A modeling approach to determine the importance of dynamic regulation of plant hydraulic conductivities on the water uptake dynamics in the soil-plant-atmosphere system. Ecological Modelling, 2014, 290, 65-75.	2.5	28
23	Demystifying roots: A need for clarification and extended concepts in root phenotyping. Plant Science, 2019, 282, 11-13.	3.6	28
24	archiDART: an R package for the automated computation of plant root architectural traits. Plant and Soil, 2016, 398, 351-365.	3.7	27
25	A New Phenotyping Pipeline Reveals Three Types of Lateral Roots and a Random Branching Pattern in Two Cereals. Plant Physiology, 2018, 177, 896-910.	4.8	27
26	Lateral Roots: Random Diversity in Adversity. Trends in Plant Science, 2019, 24, 810-825.	8.8	25
27	archiDART v3.0: A new data analysis pipeline allowing the topological analysis of plant root systems. F1000Research, 2018, 7, 22.	1.6	25
28	GRANAR, a Computational Tool to Better Understand the Functional Importance of Monocotyledon Root Anatomy. Plant Physiology, 2020, 182, 707-720.	4.8	23
29	Connecting the dots between computational tools to analyse soilâ€“root water relations. Journal of Experimental Botany, 2019, 70, 2345-2357.	4.8	22
30	Measuring root system traits of wheat in 2D images to parameterize 3D root architecture models. Plant and Soil, 2018, 425, 457-477.	3.7	21
31	Comparative analysis of Cd and Zn impacts on root distribution and morphology of Lolium perenne and Trifolium repens: implications for phytostabilization. Plant and Soil, 2014, 376, 229-244.	3.7	20
32	Combining semi-automated image analysis techniques with machine learning algorithms to accelerate large-scale genetic studies. GigaScience, 2017, 6, 1-7.	6.4	18
33	Call for Participation: Collaborative Benchmarking of Functional-Structural Root Architecture Models. The Case of Root Water Uptake. Frontiers in Plant Science, 2020, 11, 316.	3.6	18
34	Accuracy of image analysis tools for functional root traits: A comment on Delory etÂal. (2017). Methods in Ecology and Evolution, 2019, 10, 702-711.	5.2	15
35	Combining crossâ€section images and modeling tools to create highâ€resolution root system hydraulic atlases in <scp>Zea mays</scp>. Plant Direct, 2021, 5, e334.	1.9	14
36	Development and Validation of a Deep Learning Based Automated Minirhizotron Image Analysis Pipeline. Plant Phenomics, 2022, 2022, .	5.9	14

#	Article	IF	Citations
37	QuoVidi: An openâ€source web application for the organization of largeâ€scale biological treasure hunts. Ecology and Evolution, 2021, 11, 3516-3526.	1.9	9
38	MARSHAL, a novel tool for virtual phenotyping of maize root system hydraulic architectures. In Silico Plants, 2020, 2, .	1.9	8
39	Connecting plant phenotyping and modelling communities: lessons from science mapping and operational perspectives. In Silico Plants, 2022, 4, .	1.9	4
40	A modeling approach to determine the contribution of plant hydraulic conductivities on the water uptake dynamics in the soil-plant-atmosphere system. , 2012, , .		1
41	Presentation of CPlantBox: a whole functional-structural plant model (root and shoot) coupled with a mechanistic resolution of carbon and water flows. , 2018, , .		1
42	Investigating Soilâ€“Root Interactions with the Numerical Model R-SWMS. Methods in Molecular Biology, 2022, 2395, 259-283.	0.9	0