Guillaume Lobet

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5211751/publications.pdf

Version: 2024-02-01

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	Investigating Soilâ€“Root Interactions with the Numerical Model R-SWMS. Methods in Molecular Biology, 2022, 2395, 259-283.	0.9	0
2	Connecting plant phenotyping and modelling communities: lessons from science mapping and operational perspectives. In Silico Plants, 2022, 4, .	1.9	4
3	Development and Validation of a Deep Learning Based Automated Minirhizotron Image Analysis Pipeline. Plant Phenomics, 2022, 2022, .	5.9	14
4	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
5	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
6	GRANAR, a Computational Tool to Better Understand the Functional Importance of Monocotyledon Root Anatomy. Plant Physiology, 2020, 182, 707-720.	4.8	23
7	CPlantBox, a whole-plant modelling framework for the simulation of water- and carbon-related processes. In Silico Plants, 2020, 2, .	1.9	37
8	MARSHAL, a novel tool for virtual phenotyping of maize root system hydraulic architectures. In Silico Plants, 2020, 2, .	1.9	8
9	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
10	Lateral Roots: Random Diversity in Adversity. Trends in Plant Science, 2019, 24, 810-825.	8.8	25
11	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
12	Connecting the dots between computational tools to analyse soilâ€“root water relations. Journal of Experimental Botany, 2019, 70, 2345-2357.	4.8	22
13	Demystifying roots: A need for clarification and extended concepts in root phenotyping. Plant Science, 2019, 282, 11-13.	3.6	28
14	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
15	CRootBox: a structuralâ€“functional modelling framework for root systems. Annals of Botany, 2018, 121, 1033-1053.	2.9	123
16	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
17	Presentation of CPlantBox: a whole functional-structural plant model (root and shoot) coupled with a mechanistic resolution of carbon and water flows. , 2018, , .		1
18	Going with the Flow: Multiscale Insights into the Composite Nature of Water Transport in Roots. Plant Physiology, 2018, 178, 1689-1703.	4.8	63

#	Article	IF	Citations
19	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
20	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
21	archiDART v3.0: A new data analysis pipeline allowing the topological analysis of plant root systems. F1000Research, 2018, 7, 22.	1.6	25
22	Image Analysis in Plant Sciences: Publish Then Perish. Trends in Plant Science, 2017, 22, 559-566.	8.8	124
23	Combining semi-automated image analysis techniques with machine learning algorithms to accelerate large-scale genetic studies. GigaScience, 2017, 6, 1-7.	6.4	18
24	An evaluation of inexpensive methods for root image acquisition when using rhizotrons. Plant Methods, 2017, 13, 11.	4.3	29
25	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
26	Integrating roots into a whole plant network of flowering time genes in Arabidopsis thaliana. Scientific Reports, 2016, 6, 29042.	3.3	40
27	Environmental Control of Root System Biology. Annual Review of Plant Biology, 2016, 67, 619-642.	18.7	142
28	FLOR-ID: an interactive database of flowering-time gene networks inArabidopsis thaliana. Nucleic Acids Research, 2016, 44, D1167-D1171.	14.5	308
29	archiDART: an R package for the automated computation of plant root architectural traits. Plant and Soil, 2016, 398, 351-365.	3.7	27
30	GLO-Roots: an imaging platform enabling multidimensional characterization of soil-grown root systems. ELife, 2015, 4, .	6.0	212
31	â€œRhizoponicsâ€ a novel hydroponic rhizotron for root system analyses on mature Arabidopsis thaliana plants. Plant Methods, 2015, 11, 3.	4.3	61
32	Root System Markup Language: Toward a Unified Root Architecture Description Language. Plant Physiology, 2015, 167, 617-627.	4.8	105
33	Inflorescence development in tomato: gene functions within a zigzag model. Frontiers in Plant Science, 2014, 5, 121.	3.6	29
34	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
35	Plant Water Uptake in Drying Soils. Plant Physiology, 2014, 164, 1619-1627.	4.8	122
36	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

#	Article	IF	Citations
37	Novel scanning procedure enabling the vectorization of entire rhizotron-grown root systems. Plant Methods, 2013, 9, 1.	4.3	214
38	Root Systems Biology: Integrative Modeling across Scales, from Gene Regulatory Networks to the Rhizosphere. Plant Physiology, 2013, 163, 1487-1503.	4.8	34
39	An online database for plant image analysis software tools. Plant Methods, 2013, 9, 38.	4.3	175
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	A Novel Image-Analysis Toolbox Enabling Quantitative Analysis of Root System Architecture Â Â. Plant Physiology, 2011, 157, 29-39.	4.8	430
42	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