Daniel Leitner

List of Publications by Year
in descending order

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Version: 2024-02-01

26 papers	1,428 citations	430874 18 h-index	580821 25 g-index
32 all docs	32 docs citations	32 times ranked	1665 citing authors

#	Article	IF	Citations
1	Root System Scale Models Significantly Overestimate Root Water Uptake at Drying Soil Conditions. Frontiers in Plant Science, 2022, 13, 798741.	3.6	8
2	Editorial: Benchmarking 3D-Models of Root Growth, Architecture and Functioning. Frontiers in Plant Science, 2022, 13, .	3.6	2
3	Root architecture development in stony soils. Vadose Zone Journal, 2021, 20, e20133.	2.2	12
4	Simulating rhizodeposition patterns around growing and exuding root systems. In Silico Plants, 2021, 3, .	1.9	11
5	Soil compaction impacts soybean root growth in an Oxisol from subtropical Brazil. Soil and Tillage Research, 2020, 200, 104611.	5.6	45
6	CPlantBox, a whole-plant modelling framework for the simulation of water- and carbon-related processes. In Silico Plants, 2020, 2, .	1.9	37
7	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
8	Mechanical and Hydric Stress Effects on Maize Root System Development at Different Soil Compaction Levels. Frontiers in Plant Science, 2019, 10, 1358.	3.6	21
9	Parameter sensitivity analysis of a root system architecture model based on virtual field sampling. Plant and Soil, 2019, 438, 101-126.	3.7	9
10	Connecting the dots between computational tools to analyse soilâ€“root water relations. Journal of Experimental Botany, 2019, 70, 2345-2357.	4.8	22
11	Mechanistic framework to link root growth models with weather and soil physical properties, including example applications to soybean growth in Brazil. Plant and Soil, 2018, 428, 67-92.	3.7	45
12	CRootBox: a structuralâ€“functional modelling framework for root systems. Annals of Botany, 2018, 121, 1033-1053.	2.9	123
13	Presentation of CPlantBox: a whole functional-structural plant model (root and shoot) coupled with a mechanistic resolution of carbon and water flows. , 2018, , .		1
14	Hyperspectral imaging: a novel approach for plant root phenotyping. Plant Methods, 2018, 14, 84.	4.3	53
15	RGB and Spectral Root Imaging for Plant Phenotyping and Physiological Research: Experimental Setup and Imaging Protocols. Journal of Visualized Experiments, 2017, , .	0.3	22
16	Root architecture simulation improves the inference from seedling root phenotyping towards mature root systems. Journal of Experimental Botany, 2017, 68, 965-982.	4.8	45
17	Can diversity in root architecture explain plant water use efficiency? A modeling study. Ecological Modelling, 2015, 312, 200-210.	2.5	94
18	Root System Markup Language: Toward a Unified Root Architecture Description Language. Plant Physiology, 2015, 167, 617-627.	4.8	105

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19	Recovering Root System Traits Using Image Analysis Exemplified by Two-Dimensional Neutron Radiography Images of Lupine Â Â Â. Plant Physiology, 2014, 164, 24-35.	4.8	91
20	Impact of contrasted maize root traits at flowering on water stress tolerance â€“ A simulation study. Field Crops Research, 2014, 165, 125-137.	5.1	79
21	Modelling rootâ€“soil interactions using threeâ€“dimensional models of root growth, architecture and function. Plant and Soil, 2013, 372, 93-124.	3.7	238
22	A statistical approach to root system classification. Frontiers in Plant Science, 2013, 4, 292.	3.6	55
23	High-resolution chemical imaging of labile phosphorus in the rhizosphere of Brassica napus L. cultivars. Environmental and Experimental Botany, 2012, 77, 219-226.	4.2	73
24	Modelling Phosphorus Dynamics in the Soilâ€“Plant System. Soil Biology, 2011, , 113-133.	0.8	19
25	A dynamic root system growth model based on L-Systems. Plant and Soil, 2010, 332, 177-192.	3.7	145
26	The algorithmic beauty of plant roots â€“ an L-System model for dynamic root growth simulation. Mathematical and Computer Modelling of Dynamical Systems, 2010, 16, 575-587.	2.2	41