

Stanley J Miklavcic

List of Publications by Year in descending order

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Version: 2024-02-01

49
papers

1,449
citations

430874

18
h-index

345221

36
g-index

51
all docs

51
docs citations

51
times ranked

1914
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy costs of salt tolerance in crop plants. <i>New Phytologist</i> , 2020, 225, 1072-1090.	7.3	284
2	Detection and analysis of wheat spikes using Convolutional Neural Networks. <i>Plant Methods</i> , 2018, 14, 100.	4.3	173
3	Estimation of vegetation indices for high-throughput phenotyping of wheat using aerial imaging. <i>Plant Methods</i> , 2018, 14, 20.	4.3	80
4	RootGraph: a graphic optimization tool for automated image analysis of plant roots. <i>Journal of Experimental Botany</i> , 2015, 66, 6551-6562.	4.8	61
5	Detecting spikes of wheat plants using neural networks with Laws texture energy. <i>Plant Methods</i> , 2017, 13, 83.	4.3	61
6	Landmark-free statistical analysis of the shape of plant leaves. <i>Journal of Theoretical Biology</i> , 2014, 363, 41-52.	1.7	55
7	Polyethyleneimine for copper absorption II: kinetics, selectivity and efficiency from seawater. <i>RSC Advances</i> , 2015, 5, 51883-51890.	3.6	54
8	A Riemannian Elastic Metric for Shape-Based Plant Leaf Classification. , 2012, , .		46
9	A Comprehensive Biophysical Model of Ion and Water Transport in Plant Roots. I. Clarifying the Roles of Endodermal Barriers in the Salt Stress Response. <i>Frontiers in Plant Science</i> , 2017, 8, 1326.	3.6	37
10	A Confined Complex Liquid. Oscillatory Forces and Lamellae Formation from an L3 Phase. <i>Langmuir</i> , 1995, 11, 3928-3936.	3.5	36
11	Root phenotyping by root tip detection and classification through statistical learning. <i>Plant and Soil</i> , 2014, 380, 193-209.	3.7	34
12	RootAnalyzer: A Cross-Section Image Analysis Tool for Automated Characterization of Root Cells and Tissues. <i>PLoS ONE</i> , 2015, 10, e0137655.	2.5	34
13	High-Throughput Field Imaging and Basic Image Analysis in a Wheat Breeding Programme. <i>Frontiers in Plant Science</i> , 2019, 10, 449.	3.6	34
14	Quantitative Estimation of Wheat Phenotyping Traits Using Ground and Aerial Imagery. <i>Remote Sensing</i> , 2018, 10, 950.	4.0	33
15	Modeling Root Zone Effects on Preferred Pathways for the Passive Transport of Ions and Water in Plant Roots. <i>Frontiers in Plant Science</i> , 2016, 7, 914.	3.6	30
16	Quantifying the Onset and Progression of Plant Senescence by Color Image Analysis for High Throughput Applications. <i>PLoS ONE</i> , 2016, 11, e0157102.	2.5	26
17	Land-based crop phenotyping by image analysis: Accurate estimation of canopy height distributions using stereo images. <i>PLoS ONE</i> , 2018, 13, e0196671.	2.5	26
18	Theory of light propagation incorporating scattering and absorption in turbid media. <i>Optics Letters</i> , 2005, 30, 792.	3.3	20

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19	A Comprehensive Biophysical Model of Ion and Water Transport in Plant Roots. II. Clarifying the Roles of SOS1 in the Salt-Stress Response in Arabidopsis. <i>Frontiers in Plant Science</i> , 2019, 10, 1121.	3.6	19
20	On the competitive uptake and transport of ions through differentiated root tissues. <i>Journal of Theoretical Biology</i> , 2014, 340, 1-10.	1.7	18
21	An Automatic Field Plot Extraction Method From Aerial Orthomosaic Images. <i>Frontiers in Plant Science</i> , 2019, 10, 683.	3.6	18
22	Mathematical modelling of the uptake and transport of salt in plant roots. <i>Journal of Theoretical Biology</i> , 2013, 336, 132-143.	1.7	16
23	A new method for accurate, high-throughput volume estimation from three 2D projective images. <i>International Journal of Food Properties</i> , 2017, 20, 2344-2357.	3.0	16
24	Toward a biophysical understanding of the salt stress response of individual plant cells. <i>Journal of Theoretical Biology</i> , 2015, 385, 130-142.	1.7	14
25	Obtaining T ₁ - T ₂ distribution functions from 1-dimensional T ₁ and T ₂ measurements: The pseudo 2-D relaxation model. <i>Journal of Magnetic Resonance</i> , 2016, 269, 186-195.	2.1	14
26	Density functional theory of confined ionic liquids: A survey of the effects of ion type, molecular charge distribution, and surface adsorption. <i>Journal of Chemical Physics</i> , 2019, 150, 184502.	3.0	14
27	Land-based crop phenotyping by image analysis: consistent canopy characterization from inconsistent field illumination. <i>Plant Methods</i> , 2018, 14, 39.	4.3	13
28	A Hybrid Approach for Improving Image Segmentation: Application to Phenotyping of Wheat Leaves. <i>PLoS ONE</i> , 2016, 11, e0168496.	2.5	13
29	Phenotyping of plants in competitive but controlled environments: a study of drought response in transgenic wheat. <i>Functional Plant Biology</i> , 2017, 44, 290.	2.1	11
30	On the Efficacy of Water Transport in Leaves. A Coupled Xylem-Phloem Model of Water and Solute Transport. <i>Frontiers in Plant Science</i> , 2021, 12, 615457.	3.6	11
31	Scaling exponent and dispersity of polymers in solution by diffusion NMR. <i>Journal of Colloid and Interface Science</i> , 2017, 493, 393-397.	9.4	9
32	Statistical analysis and modeling of the geometry and topology of plant roots. <i>Journal of Theoretical Biology</i> , 2020, 486, 110108.	1.7	8
33	The Influence of Object Shape on the Convergence of Active Contour Models for Image Segmentation. <i>Computer Journal</i> , 2016, 59, 603-615.	2.4	7
34	Analytical Study of Colour Spaces for Plant Pixel Detection. <i>Journal of Imaging</i> , 2018, 4, 42.	3.0	7
35	A Comprehensive Biophysical Model of Ion and Water Transport in Plant Roots. III. Quantifying the Energy Costs of Ion Transport in Salt-Stressed Roots of Arabidopsis. <i>Frontiers in Plant Science</i> , 2020, 11, 865.	3.6	7
36	On the stability of planar fluid interfaces under van der Waals surface forces. <i>Journal of Physics A</i> , 2003, 36, 8829-8850.	1.6	6

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37	Pre-processing by data augmentation for improved ellipse fitting. PLoS ONE, 2018, 13, e0196902.	2.5	6
38	Quantifying the force between mercury and mica across an ionic liquid using white light interferometry. Journal of Colloid and Interface Science, 2019, 538, 218-227.	9.4	5
39	Interrogating the relationship between the microstructure of amphiphilic poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 Journal of Colloid and Interface Science, 2022, 606, 1140-1152.	9.4	5
40	A Complete System for 3D Reconstruction of Roots for Phenotypic Analysis. Advances in Experimental Medicine and Biology, 2015, 823, 249-270.	1.6	5
41	Convective and diffusive effects on particle transport in asymmetric periodic capillaries. PLoS ONE, 2017, 12, e0183127.	2.5	5
42	Mathematically modelling competitive ion absorption in a polymer matrix. RSC Advances, 2014, 4, 60349-60362.	3.6	4
43	Reliable and accurate extraction of Hamaker constants from surface force measurements. Journal of Colloid and Interface Science, 2018, 524, 263-266.	9.4	4
44	Integrated self-calibration of single axis motion for three-dimensional reconstruction of roots. IET Computer Vision, 2015, 9, 850-856.	2.0	3
45	Density functional theory of confined ionic liquids: the influence of power-law attractions on molecule distributions and surface forces. RSC Advances, 2021, 11, 17498-17513.	3.6	3
46	Statistical shape models of plant leaves. , 2013, , .		2
47	Efficient Compression of Distributed Information in Estimation Fusion. Electronic Notes in Discrete Mathematics, 2014, 46, 297-304.	0.4	2
48	The pseudo 2-D relaxation model for obtaining T1-T2 relationships from 1-D T1 and T2 measurements of fluid in porous media. Microporous and Mesoporous Materials, 2018, 269, 191-194.	4.4	2
49	A Whole Leaf Comparative Study of Stomatal Conductance Models. Frontiers in Plant Science, 2022, 13, 766975.	3.6	2