Andrew P French

List of Publications by Year
in descending order

46 papers	3,549 citations	304743 22 h-index	265206 42 g-index
52 all docs	52 docs citations	52 times ranked	5131 citing authors

#	Article	IF	Citations
1	SuRVoS 2: Accelerating Annotation and Segmentation for Large Volumetric Bioimage Workflows Across Modalities and Scales. Frontiers in Cell and Developmental Biology, 2022, 10, 842342.	3.7	10
2	Bounding Box Based Weakly Supervised Deep Convolutional Neural Network for Medical Image Segmentation Using an Uncertainty Guided and Spatially Constrained Loss. , 2022, , .		3
3	A stacked dense denoisingâ€“segmentation network for undersampled tomograms and knowledge transfer using synthetic tomograms. Machine Vision and Applications, 2021, 32, 1.	2.7	1
4	Using metamorphic relations to verify and enhance Artcode classification. Journal of Systems and Software, 2021, 182, 111060.	4.5	4
5	GANana: Unsupervised Domain Adaptation for Volumetric Regression of Fruit. Plant Phenomics, 2021, 2021, 9874597.	5.9	5
6	Learning to Localise and Count with Incomplete Dot-annotations. , 2021, , .		1
7	Domain Adaptation of Synthetic Images for Wheat Head Detection. Plants, 2021, 10, 2633.	3.5	16
8	Active Vision and Surface Reconstruction for 3D Plant Shoot Modelling. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2020, 17, 1907-1917.	3.0	24
9	Towards infield, live plant phenotyping using a reduced-parameter CNN. Machine Vision and Applications, 2020, 31, 2.	2.7	16
10	Volumetric Segmentation of Cell Cycle Markers in Confocal Images Using Machine Learning and Deep Learning. Frontiers in Plant Science, 2020, 11, 1275.	3.6	4
11	Deep convolutional neural networks for image-based Convolvulus sepium detection in sugar beet fields. Plant Methods, 2020, 16, 29.	4.3	110
12	RootNav 2.0: Deep learning for automatic navigation of complex plant root architectures. GigaScience, 2019, 8, .	6.4	101
13	A low-cost aeroponic phenotyping system for storage root development: unravelling the below-ground secrets of cassava (Manihot esculenta). Plant Methods, 2019, 15, 131.	4.3	21
14	Convolutional Neural Net-Based Cassava Storage Root Counting Using Real and Synthetic Images. Frontiers in Plant Science, 2019, 10, 1516.	3.6	16
15	Root branching toward water involves posttranslational modification of transcription factor ARF7. Science, 2018, 362, 1407-1410.	12.6	179
16	Cellular Patterning of Arabidopsis Roots Under Low Phosphate Conditions. Frontiers in Plant Science, 2018, 9, 735.	3.6	19
17	Plant Phenotyping: An Active Vision Cell for Three-Dimensional Plant Shoot Reconstruction. Plant Physiology, 2018, 178, 524-534.	4.8	41
18	SuRVoS: Super-Region Volume Segmentation workbench. Journal of Structural Biology, 2017, 198, 43-53.	2.8	72

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19	Volume Segmentation and Analysis of Biological Materials Using SuRVoS (Super-region Volume) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.3	7
20	Deep machine learning provides state-of-the-art performance in image-based plant phenotyping. GigaScience, 2017, 6, 1-10.	6.4	216
21	The Microphenotron: a robotic miniaturized plant phenotyping platform with diverse applications in chemical biology. Plant Methods, 2017, 13, 10.	4.3	18
22	AutoRoot: open-source software employing a novel image analysis approach to support fully-automated plant phenotyping. Plant Methods, 2017, 13, 12.	4.3	13
23	Approaches to three-dimensional reconstruction of plant shoot topology and geometry. Functional Plant Biology, 2017, 44, 62.	2.1	83
24	Hyperspectral image analysis techniques for the detection and classification of the early onset of plant disease and stress. Plant Methods, 2017, 13, 80.	4.3	363
25	Deep Learning for Multi-task Plant Phenotyping. , 2017, , .		79
26	Special issue on computer vision and image analysis in plant phenotyping. Machine Vision and Applications, 2016, 27, 607-609.	2.7	25
27	A patch-based approach to 3D plant shoot phenotyping. Machine Vision and Applications, 2016, 27, 767-779.	2.7	26
28	Leaf segmentation in plant phenotyping: a collation study. Machine Vision and Applications, 2016, 27, 585-606.	2.7	204
29	From image processing to computer vision: plant imaging grows up. Functional Plant Biology, 2015, 42, iii.	2.1	12
30	Surface Reconstruction of Plant Shoots from Multiple Views. Lecture Notes in Computer Science, 2015, , 158-173.	1.3	1
31	Systems Analysis of Auxin Transport in the <i>Arabidopsis</i> Root Apex Â. Plant Cell, 2014, 26, 862-875.	6.6	190
32	Automated Recovery of Three-Dimensional Models of Plant Shoots from Multiple Color Images Â Â Â. Plant Physiology, 2014, 166, 1688-1698.	4.8	112
33	Mechanical modelling quantifies the functional importance of outer tissue layers during root elongation and bending. New Phytologist, 2014, 202, 1212-1222.	7.3	53
34	Behavioural changes in dairy cows with lameness in an automatic milking system. Applied Animal Behaviour Science, 2014, 150, 1-8.	1.9	57
35	RootNav: Navigating Images of Complex Root Architectures Â Â. Plant Physiology, 2013, 162, 1802-1814.	4.8	218
36	Sequential induction of auxin efflux and influx carriers regulates lateral root emergence. Molecular Systems Biology, 2013, 9, 699.	7.2	104

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37	Recovering the dynamics of root growth and development using novel image acquisition and analysis methods. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1517-1524.	4.0	41
38	Root gravitropism is regulated by a transient lateral auxin gradient controlled by a tipping-point mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4668-4673.	7.1	304
39	CellSeT: Novel Software to Extract and Analyze Structured Networks of Plant Cells from Confocal Images. Plant Cell, 2012, 24, 1353-1361.	6.6	88
40	What lies beneath: underlying assumptions in bioimage analysis. Trends in Plant Science, 2012, 17, 688-692.	8.8	21
41	Identifying biological landmarks using a novel cell measuring image analysis tool: Cell-o-Tape. Plant Methods, 2012, 8, 7.	4.3	44
42	Tissue-level segmentation and tracking of cells in growing plant roots. Machine Vision and Applications, 2012, 23, 639-658.	2.7	11
43	High-Throughput Quantification of Root Growth Using a Novel Image-Analysis Tool Â Â. Plant Physiology, 2009, 150, 1784-1795.	4.8	190
44	Segmentation and Tracking of Confocal Images of Arabidopsis Thaliana Root Cells Using Automatically-Initialized Network Snakes. , 2009, , .		3
45	Colocalization of fluorescent markers in confocal microscope images of plant cells. Nature Protocols, 2008, 3, 619-628.	12.0	333
46	Developing Digital Records: Early Experiences of Record and Replay. Computer Supported Cooperative Work, 2006, 15, 281-319.	2.9	16