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	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
2	Colocalization of fluorescent markers in confocal microscope images of plant cells. Nature Protocols, 2008, 3, 619-628.	12.0	333
3	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
4	RootNav: Navigating Images of Complex Root Architectures Â Â. Plant Physiology, 2013, 162, 1802-1814.	4.8	218
5	Deep machine learning provides state-of-the-art performance in image-based plant phenotyping. GigaScience, 2017, 6, 1-10.	6.4	216
6	Leaf segmentation in plant phenotyping: a collation study. Machine Vision and Applications, 2016, 27, 585-606.	2.7	204
7	High-Throughput Quantification of Root Growth Using a Novel Image-Analysis Tool Â Â. Plant Physiology, 2009, 150, 1784-1795.	4.8	190
8	Systems Analysis of Auxin Transport in the Arabidopsis Root Apex Â. Plant Cell, 2014, 26, 862-875.	6.6	190
9	Root branching toward water involves posttranslational modification of transcription factor ARF7. Science, 2018, 362, 1407-1410.	12.6	179
10	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
11	Deep convolutional neural networks for image-based Convolvulus sepium detection in sugar beet fields. Plant Methods, 2020, 16, 29.	4.3	110
12	Sequential induction of auxin efflux and influx carriers regulates lateral root emergence. Molecular Systems Biology, 2013, 9, 699.	7.2	104
13	RootNav 2.0: Deep learning for automatic navigation of complex plant root architectures. GigaScience, 2019, 8, .	6.4	101
14	CellSeT: Novel Software to Extract and Analyze Structured Networks of Plant Cells from Confocal Images. Plant Cell, 2012, 24, 1353-1361.	6.6	88
15	Approaches to three-dimensional reconstruction of plant shoot topology and geometry. Functional Plant Biology, 2017, 44, 62.	2.1	83
16	Deep Learning for Multi-task Plant Phenotyping. , 2017, , .		79
17	SuRVoS: Super-Region Volume Segmentation workbench. Journal of Structural Biology, 2017, 198, 43-53.	2.8	72
18	Behavioural changes in dairy cows with lameness in an automatic milking system. Applied Animal Behaviour Science, 2014, 150, 1-8.	1.9	57

#	Article	IF	Citations
19	Mechanical modelling quantifies the functional importance of outer tissue layers during root elongation and bending. New Phytologist, 2014, 202, 1212-1222.	7.3	53
20	Identifying biological landmarks using a novel cell measuring image analysis tool: Cell-o-Tape. Plant Methods, 2012, 8, 7.	4.3	44
21	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
22	Plant Phenotyping: An Active Vision Cell for Three-Dimensional Plant Shoot Reconstruction. Plant Physiology, 2018, 178, 524-534.	4.8	41
23	A patch-based approach to 3D plant shoot phenotyping. Machine Vision and Applications, 2016, 27, 767-779.	2.7	26
24	Special issue on computer vision and image analysis in plant phenotyping. Machine Vision and Applications, 2016, 27, 607-609.	2.7	25
25	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
26	What lies beneath: underlying assumptions in bioimage analysis. Trends in Plant Science, 2012, 17, 688-692.	8.8	21
27	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
28	Cellular Patterning of Arabidopsis Roots Under Low Phosphate Conditions. Frontiers in Plant Science, 2018, 9, 735.	3.6	19
29	The Microphenotron: a robotic miniaturized plant phenotyping platform with diverse applications in chemical biology. Plant Methods, 2017, 13, 10.	4.3	18
30	Developing Digital Records: Early Experiences of Record and Replay. Computer Supported Cooperative Work, 2006, 15, 281-319.	2.9	16
31	Convolutional Neural Net-Based Cassava Storage Root Counting Using Real and Synthetic Images. Frontiers in Plant Science, 2019, 10, 1516.	3.6	16
32	Towards infield, live plant phenotyping using a reduced-parameter CNN. Machine Vision and Applications, 2020, 31, 2.	2.7	16
33	Domain Adaptation of Synthetic Images for Wheat Head Detection. Plants, 2021, 10, 2633.	3.5	16
34	AutoRoot: open-source software employing a novel image analysis approach to support fully-automated plant phenotyping. Plant Methods, 2017, 13, 12.	4.3	13
35	From image processing to computer vision: plant imaging grows up. Functional Plant Biology, 2015, 42, iii.	2.1	12
36	Tissue-level segmentation and tracking of cells in growing plant roots. Machine Vision and Applications, 2012, 23, 639-658.	2.7	11

#	Article	IF	Citations
37	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
38	Volume Segmentation and Analysis of Biological Materials Using SuRVoS (Super-region Volume) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7	0.3	7
39	GANana: Unsupervised Domain Adaptation for Volumetric Regression of Fruit. Plant Phenomics, 2021, 2021, 9874597.	5.9	5
40	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
41	Using metamorphic relations to verify and enhance Artcode classification. Journal of Systems and Software, 2021, 182, 111060.	4.5	4
42	Segmentation and Tracking of Confocal Images of Arabidopsis Thaliana Root Cells Using Automatically-Initialized Network Snakes. , 2009, , .		3
43	Bounding Box Based Weakly Supervised Deep Convolutional Neural Network for Medical Image Segmentation Using an Uncertainty Guided and Spatially Constrained Loss. , 2022, , .		3
44	Surface Reconstruction of Plant Shoots from Multiple Views. Lecture Notes in Computer Science, 2015, , 158-173.	1.3	1
45	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
46	Learning to Localise and Count with Incomplete Dot-annotations. , 2021, , .		1