

Frédéric Boudon

List of Publications by Year in descending order

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31
papers

1,366
citations

471509

17
h-index

501196

28
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33
all docs

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docs citations

33
times ranked

1536
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards virtual modelling environments for functional structural plant models based on Jupyter notebooks: application to the modelling of mango tree growth and development. <i>In Silico Plants</i> , 2022, 4, .	1.9	3
2	When architectural plasticity fails to counter the light competition imposed by planting design: an <i>in silico</i> approach using a functional structural model of oil palm. <i>In Silico Plants</i> , 2022, 4, .	1.9	3
3	Sugar availability suppresses the auxin-induced strigolactone pathway to promote bud outgrowth. <i>New Phytologist</i> , 2020, 225, 866-879.	7.3	93
4	V-Mango: a functional structural model of mango tree growth, development and fruit production. <i>Annals of Botany</i> , 2020, 126, 745-763.	2.9	26
5	3D Plant Phenotyping: All You Need is Labelled Point Cloud Data. <i>Lecture Notes in Computer Science</i> , 2020, , 244-260.	1.3	7
6	Light Regulation of Axillary Bud Outgrowth Along Plant Axes: An Overview of the Roles of Sugars and Hormones. <i>Frontiers in Plant Science</i> , 2019, 10, 1296.	3.6	54
7	Nature abhors a vacuum: Deciphering the vegetative reaction of the mango tree to pruning. <i>European Journal of Agronomy</i> , 2019, 104, 85-96.	4.1	14
8	Multi-scale high-throughput phenotyping of apple architectural and functional traits in orchard reveals genotypic variability under contrasted watering regimes. <i>Horticulture Research</i> , 2019, 6, 52.	6.3	35
9	Estimating wheat green area index from ground-based LiDAR measurement using a 3D canopy structure model. <i>Agricultural and Forest Meteorology</i> , 2017, 247, 12-20.	4.8	57
10	Integrating Physiology and Architecture in Models of Fruit Expansion. <i>Frontiers in Plant Science</i> , 2016, 7, 1739.	3.6	15
11	A Computational Framework for 3D Mechanical Modeling of Plant Morphogenesis with Cellular Resolution. <i>PLoS Computational Biology</i> , 2015, 11, e1003950.	3.2	110
12	Quantitative assessment of automatic reconstructions of branching systems obtained from laser scanning. <i>Annals of Botany</i> , 2014, 114, 853-862.	2.9	40
13	An Auxin-Mediated Shift toward Growth Isotropy Promotes Organ Formation at the Shoot Meristem in Arabidopsis. <i>Current Biology</i> , 2014, 24, 2335-2342.	3.9	161
14	Realistic Plant Modeling from Images Based on Analysis-by-Synthesis. <i>Lecture Notes in Computer Science</i> , 2014, , 213-229.	1.3	2
15	Reconstructing Plants in 3D from a Single Image Using Analysis-by-Synthesis. <i>Lecture Notes in Computer Science</i> , 2013, , 322-332.	1.3	6
16	L-Py: An L-System Simulation Framework for Modeling Plant Architecture Development Based on a Dynamic Language. <i>Frontiers in Plant Science</i> , 2012, 3, 76.	3.6	90
17	Investigating the influence of geometrical traits on light interception efficiency of apple trees: A modelling study with MAppleT. , 2012, , .		12
18	Characteristics of Acacia mangium shoot apical meristems in natural and in vitro conditions in relation to heteroblasty. <i>Trees - Structure and Function</i> , 2012, 26, 1031-1044.	1.9	3

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19	Modeling of light transmission under heterogeneous forest canopy: an appraisal of the effect of the precision level of crown description. <i>Annals of Forest Science</i> , 2012, 69, 181-193.	2.0	20
20	Understanding Patchy Landscape Dynamics: Towards a Landscape Language. <i>PLoS ONE</i> , 2012, 7, e46064.	2.5	25
21	A novel profile based model for virtual representation of quasi-symmetric plant organs. <i>Computers and Electronics in Agriculture</i> , 2011, 75, 113-124.	7.7	16
22	Phase change-related variations of dome shape in <i>Eucalyptus urophylla</i> — <i>Eucalyptus grandis</i> shoot apical meristems. <i>Trees - Structure and Function</i> , 2010, 24, 743-752.	1.9	8
23	Compact and progressive plant models for streaming in networked virtual environments. <i>ACM Transactions on Multimedia Computing, Communications and Applications</i> , 2009, 5, 1-22.	4.3	4
24	Structure from silhouettes: a new paradigm for fast sketch-based design of trees. <i>Computer Graphics Forum</i> , 2009, 28, 541-550.	3.0	63
25	PlantGL: A Python-based geometric library for 3D plant modelling at different scales. <i>Graphical Models</i> , 2009, 71, 1-21.	2.4	87
26	Efficient and robust reconstruction of botanical branching structure from laser scanned points. , 2009, , .		27
27	Multiscale Framework for Modeling and Analyzing Light Interception by Trees. <i>Multiscale Modeling and Simulation</i> , 2008, 7, 910-933.	1.6	39
28	OpenAlea: a visual programming and component-based software platform for plant modelling. <i>Functional Plant Biology</i> , 2008, 35, 751.	2.1	261
29	Streaming of plants in distributed virtual environments. , 2008, , .		14
30	ESTIMATING THE FRACTAL DIMENSION OF PLANTS USING THE TWO-SURFACE METHOD: AN ANALYSIS BASED ON 3D-DIGITIZED TREE FOLIAGE. <i>Fractals</i> , 2006, 14, 149-163.	3.7	20
31	Interactive Design of Bonsai Tree Models. <i>Computer Graphics Forum</i> , 2003, 22, 591-599.	3.0	50