

Robert D Guy

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

72
papers

1,909
citations

26
h-index

41
g-index

75
ext. papers

2,340
ext. citations

4
avg, IF

5.23
L-index

#	Paper	IF	Citations
72	Proteomic analysis of metabolic mechanisms associated with fatty acid biosynthesis during <i>Styrax tonkinensis</i> kernel development. <i>Journal of the Science of Food and Agriculture</i> , 2021 , 101, 6053-6063	4.3	0
71	Seasonal progression of photoprotection responses in different aged savin juniper plants under shade and sun. <i>Trees - Structure and Function</i> , 2021 , 35, 1601-1612	2.6	1
70	Growth response, uptake and mobilization of metals in native plant species on tailings at a Chilean copper mine. <i>International Journal of Phytoremediation</i> , 2021 , 23, 539-547	3.9	3
69	Physiological Response of and to Salinity and Hydraulic Fracturing Wastewater: Potential for Phytoremediation Applications. <i>International Journal of Environmental Research and Public Health</i> , 2020 , 17,	4.6	2
68	Isotopic composition and concentration of total nitrogen and nitrate in xylem sap under near steady-state hydroponics. <i>Plant, Cell and Environment</i> , 2020 , 43, 2112-2123	8.4	5
67	A comparative study of seed reserve accumulation in five <i>Styrax</i> species with potential for biofuel production. <i>Trees - Structure and Function</i> , 2020 , 34, 891-902	2.6	2
66	Transcriptome analysis of metabolic pathways associated with oil accumulation in developing seed kernels of <i>Styrax tonkinensis</i> , a woody biodiesel species. <i>BMC Plant Biology</i> , 2020 , 20, 121	5.3	6
65	A Numerical Study of Metachronal Propulsion at Low to Intermediate Reynolds Numbers. <i>Fluids</i> , 2020 , 5, 86	1.6	9
64	Differences in growth and physiological and metabolic responses among Canadian native and hybrid willows (<i>Salix</i> spp.) under salinity stress. <i>Tree Physiology</i> , 2020 , 40, 652-666	4.2	4
63	Emerging roles for carbonic anhydrase in mesophyll conductance and photosynthesis. <i>Plant Journal</i> , 2020 , 101, 831-844	6.9	29
62	A role for SPEECHLESS in the integration of leaf stomatal patterning with the growth vs disease trade-off in poplar. <i>New Phytologist</i> , 2019 , 223, 1888-1903	9.8	13
61	Convergent solutions of Stokes Oldroyd-B boundary value problems using the Immersed Boundary Smooth Extension (IBSE) method. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019 , 268, 56-65	2.7	5
60	Polymer stress growth in viscoelastic fluids in oscillating extensional flows with applications to micro-organism locomotion. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019 , 269, 47-56	2.7	2
59	Orientation dependent elastic stress concentration at tips of slender objects translating in viscoelastic fluids. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	7
58	Exogenous 24-Epibrassinolide Alleviates Effects of Salt Stress on Chloroplasts and Photosynthesis in <i>Robinia pseudoacacia</i> L. Seedlings. <i>Journal of Plant Growth Regulation</i> , 2019 , 38, 669-682	4.7	20
57	Concomitant effects of mercuric chloride on mesophyll conductance and carbonic anhydrase activity in <i>Populus trichocarpa</i> Torr. & Gray. <i>Trees - Structure and Function</i> , 2018 , 32, 301-309	2.6	7
56	Fine-root exploitation strategies differ in tropical old growth and logged-over forests in Ghana. <i>Biotropica</i> , 2018 , 50, 606-615	2.3	7

55	Phosphorus storage and resorption in riparian tree species: Environmental applications of poplar and willow. <i>Environmental and Experimental Botany</i> , 2018 , 149, 1-8	5.9	15
54	The influence of soluble fragments of extracellular matrix (ECM) on tumor growth and morphology. <i>Mathematical Biosciences</i> , 2018 , 296, 1-16	3.9	3
53	Hybrid vigour - poplars play it cool. <i>Tree Physiology</i> , 2018 , 38, 785-788	4.2	3
52	A POROUS VISCOELASTIC MODEL FOR THE CELL CYTOSKELETON. <i>ANZIAM Journal</i> , 2018 , 59, 472-498	0.5	4
51	An Inventory of Bryophytes on the Summit of Pink Mountain (Peace River District, British Columbia, Canada). <i>Western North American Naturalist</i> , 2018 , 78, 17	0.4	2
50	Ecological genomics of variation in bud-break phenology and mechanisms of response to climate warming in <i>Populus trichocarpa</i> . <i>New Phytologist</i> , 2018 , 220, 300-316	9.8	26
49	Self-organized mechano-chemical dynamics in amoeboid locomotion of fragments. <i>Journal Physics D: Applied Physics</i> , 2017 , 50,	3	14
48	Sexual homomorphism in dioecious trees: extensive tests fail to detect sexual dimorphism in <i>Populus</i> . <i>Scientific Reports</i> , 2017 , 7, 1831	4.9	36
47	Mechanosensitive Adhesion Explains Stepping Motility in Amoeboid Cells. <i>Biophysical Journal</i> , 2017 , 112, 2672-2682	2.9	9
46	Blue light differentially represses mesophyll conductance in high vs low latitude genotypes of <i>Populus trichocarpa</i> Torr. & Gray. <i>Journal of Plant Physiology</i> , 2017 , 213, 122-128	3.6	11
45	Flagellar swimming in viscoelastic fluids: role of fluid elastic stress revealed by simulations based on experimental data. <i>Journal of the Royal Society Interface</i> , 2017 , 14,	4.1	22
44	The role of body flexibility in stroke enhancements for finite-length undulatory swimmers in viscoelastic fluids. <i>Journal of Fluid Mechanics</i> , 2017 , 825, 109-132	3.7	19
43	Analysis of peristaltic waves and their role in migrating <i>Physarum</i> plasmodia. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 284001	3	5
42	Substantial role for carbonic anhydrase in latitudinal variation in mesophyll conductance of <i>Populus trichocarpa</i> Torr. & Gray. <i>Plant, Cell and Environment</i> , 2017 , 40, 138-149	8.4	33
41	Genotypic variation in nitrogen isotope discrimination in <i>Populus balsamifera</i> L. clones grown with either nitrate or ammonium. <i>Journal of Plant Physiology</i> , 2016 , 201, 54-61	3.6	5
40	Intracellular Pressure Dynamics in Blebbing Cells. <i>Biophysical Journal</i> , 2016 , 110, 1168-79	2.9	39
39	Impacts of bud set and lammas phenology on root:shoot biomass partitioning and carbon gain physiology in poplar. <i>Trees - Structure and Function</i> , 2016 , 30, 2131-2141	2.6	5
38	Geometric multigrid for an implicit-time immersed boundary method. <i>Advances in Computational Mathematics</i> , 2015 , 41, 635-662	1.6	6

37	A poroelastic immersed boundary method with applications to cell biology. <i>Journal of Computational Physics</i> , 2015 , 282, 77-97	4.1	38
36	Computational Challenges for Simulating Strongly Elastic Flows in Biology 2015 , 359-397		5
35	Coordination of contractility, adhesion and flow in migrating <i>Physarum amoebae</i> . <i>Journal of the Royal Society Interface</i> , 2015 , 12,	4.1	42
34	Comparative physiology of allopatric <i>Populus</i> species: geographic clines in photosynthesis, height growth, and carbon isotope discrimination in common gardens. <i>Frontiers in Plant Science</i> , 2015 , 6, 528	6.2	22
33	Geographical and environmental gradients shape phenotypic trait variation and genetic structure in <i>Populus trichocarpa</i> . <i>New Phytologist</i> , 2014 , 201, 1263-1276	9.8	136
32	Actin-myosin spatial patterns from a simplified isotropic viscoelastic model. <i>Biophysical Journal</i> , 2014 , 107, 863-70	2.9	12
31	Genome-wide association implicates numerous genes underlying ecological trait variation in natural populations of <i>Populus trichocarpa</i> . <i>New Phytologist</i> , 2014 , 203, 535-553	9.8	126
30	Mechanisms of elastic enhancement and hindrance for finite-length undulatory swimmers in viscoelastic fluids. <i>Physical Review Letters</i> , 2014 , 113, 098102	7.4	94
29	An Immersed Boundary Method for Two-fluid Mixtures. <i>Journal of Computational Physics</i> , 2014 , 262, 231-243	4.1	10
28	Investigating the drought-stress response of hybrid poplar genotypes by metabolite profiling. <i>Tree Physiology</i> , 2014 , 34, 1203-19	4.2	60
27	Association genetics, geography and ecophysiology link stomatal patterning in <i>Populus trichocarpa</i> with carbon gain and disease resistance trade-offs. <i>Molecular Ecology</i> , 2014 , 23, 5771-90	5.7	67
26	A computational model of bleb formation. <i>Mathematical Medicine and Biology</i> , 2013 , 30, 115-30	1.3	43
25	Seasonality and phenology alter functional leaf traits. <i>Oecologia</i> , 2013 , 172, 653-65	2.9	55
24	An Interface-Capturing Regularization Method for Solving the Equations for Two-Fluid Mixtures. <i>Communications in Computational Physics</i> , 2013 , 14, 1322-1346	2.4	4
23	Association analysis identifies <i>Melampsora columbiana</i> poplar leaf rust resistance SNPs. <i>PLoS ONE</i> , 2013 , 8, e78423	3.7	26
22	Breeding without breeding: selection using the genomic best linear unbiased predictor method (GBLUP). <i>New Forests</i> , 2012 , 43, 631-637	2.6	21
21	Viscoelastic Immersed Boundary Methods for Zero Reynolds Number Flow. <i>Communications in Computational Physics</i> , 2012 , 12, 462-478	2.4	7
20	Accelerating regrowth of temperate-maritime forests due to environmental change. <i>Global Change Biology</i> , 2012 , 18, 2026-2040	11.4	57

19	Low-Reynolds-number swimming in viscous two-phase fluids. <i>Physical Review E</i> , 2012 , 85, 036304	2.4	12
18	A Multigrid Method for a Model of the Implicit Immersed Boundary Equations. <i>Communications in Computational Physics</i> , 2012 , 12, 378-400	2.4	14
17	A high-resolution finite-difference method for simulating two-fluid, viscoelastic gel dynamics. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011 , 166, 1137-1157	2.7	6
16	Flow-induced channel formation in the cytoplasm of motile cells. <i>Physical Review E</i> , 2011 , 84, 016310	2.4	25
15	Multiphase flow models of biogels from crawling cells to bacterial biofilms. <i>HFSP Journal</i> , 2010 , 4, 11-25		37
14	On the accuracy of direct forcing immersed boundary methods with projection methods. <i>Journal of Computational Physics</i> , 2010 , 229, 2479-2496	4.1	30
13	Enhanced assimilation rate and water use efficiency with latitude through increased photosynthetic capacity and internal conductance in balsam poplar (<i>Populus balsamifera</i> L.). <i>Plant, Cell and Environment</i> , 2009 , 32, 1821-32	8.4	120
12	An Efficient and Robust Method for Simulating Two-Phase Gel Dynamics. <i>SIAM Journal of Scientific Computing</i> , 2008 , 30, 2535-2565	2.6	16
11	Immersed-boundary-type models of intravascular platelet aggregation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 197, 2087-2104	5.7	102
10	A wave propagation algorithm for viscoelastic fluids with spatially and temporally varying properties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 197, 2250-2264	5.7	9
9	A comparison of implicit solvers for the immersed boundary equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008 , 197, 2290-2304	5.7	26
8	Intelligent behaviors of amoeboid movement based on complex dynamics of soft matter. <i>Soft Matter</i> , 2007 , 4, 57-67	3.6	49
7	Unconditionally stable discretizations of the immersed boundary equations. <i>Journal of Computational Physics</i> , 2007 , 222, 702-719	4.1	80
6	Fibrin gel formation in a shear flow. <i>Mathematical Medicine and Biology</i> , 2007 , 24, 111-30	1.3	54
5	Geographic variation in ecophysiological traits of black cottonwood (<i>Populus trichocarpa</i>) This article is one of a selection of papers published in the Special Issue on Poplar Research in Canada. <i>Canadian Journal of Botany</i> , 2007 , 85, 1202-1213		49
4	Stability of approximate projection methods on cell-centered grids. <i>Journal of Computational Physics</i> , 2005 , 203, 517-538	4.1	24
3	Nitrogen isotope discrimination in white spruce fed with low concentrations of ammonium and nitrate. <i>Trees - Structure and Function</i> , 2005 , 19, 89-98	2.6	38
2	Asymptotic analysis of PTT type closures for network models with variable junction concentrations. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2004 , 123, 223-235	2.7	6

- 1 Probabilistic modeling of platelet aggregation: effects of activation time and receptor occupancy. *Journal of Theoretical Biology*, **2002**, 219, 33-53 2.3 6