

Robert D Guy

List of Publications by Year in descending order

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Version: 2024-02-01

73
papers

2,617
citations

186265

28
h-index

206112

48
g-index

75
all docs

75
docs citations

75
times ranked

2952
citing authors

#	ARTICLE	IF	CITATIONS
1	Genotypic variation in C and N isotope discrimination suggests local adaptation of heart-leaved willow. <i>Tree Physiology</i> , 2022, 42, 32-43.	3.1	10
2	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.	3.1	10
3	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.	3.5	5
4	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.	1.9	2
5	Emerging roles for carbonic anhydrase in mesophyll conductance and photosynthesis. <i>Plant Journal</i> , 2020, 101, 831-844.	5.7	65
6	Physiological Response of <i>Populus balsamifera</i> and <i>Salix eriocephala</i> to Salinity and Hydraulic Fracturing Wastewater: Potential for Phytoremediation Applications. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 7641.	2.6	5
7	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.	5.7	11
8	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.	1.9	4
9	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.	3.6	21
10	A Numerical Study of Metachronal Propulsion at Low to Intermediate Reynolds Numbers. <i>Fluids</i> , 2020, 5, 86.	1.7	20
11	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.	3.1	14
12	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.	2.4	6
13	A role for <i>SPEECHLESS</i> in the integration of leaf stomatal patterning with the growth vs disease trade-off in poplar. <i>New Phytologist</i> , 2019, 223, 1888-1903.	7.3	25
14	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.	2.4	10
15	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.	5.1	33
16	Orientation dependent elastic stress concentration at tips of slender objects translating in viscoelastic fluids. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	11
17	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.	1.9	12
18	Fine-root exploitation strategies differ in tropical old growth and logged-over forests in Ghana. <i>Biotropica</i> , 2018, 50, 606-615.	1.6	14

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19	Phosphorus storage and resorption in riparian tree species: Environmental applications of poplar and willow. <i>Environmental and Experimental Botany</i> , 2018, 149, 1-8.	4.2	20
20	The influence of soluble fragments of extracellular matrix (ECM) on tumor growth and morphology. <i>Mathematical Biosciences</i> , 2018, 296, 1-16.	1.9	4
21	Hybrid vigour " poplars play it cool. <i>Tree Physiology</i> , 2018, 38, 785-788.	3.1	20
22	A POROUS VISCOELASTIC MODEL FOR THE CELL CYTOSKELETON. <i>ANZIAM Journal</i> , 2018, 59, 472-498.	0.2	8
23	An Inventory of Bryophytes on the Summit of Pink Mountain (Peace River District, British Columbia,) Tj ETQq1 1 0.784314 rgBT /Over	0.4	2
24	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.	7.3	40
25	Self-organized mechano-chemical dynamics in amoeboid locomotion of <i>Physarum</i> fragments. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 204004.	2.8	26
26	Sexual homomorphism in dioecious trees: extensive tests fail to detect sexual dimorphism in <i>Populus</i> . <i>Scientific Reports</i> , 2017, 7, 1831.	3.3	54
27	Mechanosensitive Adhesion Explains Stepping Motility in Amoeboid Cells. <i>Biophysical Journal</i> , 2017, 112, 2672-2682.	0.5	19
28	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.	3.5	14
29	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, 20170289.	3.4	37
30	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.	3.4	23
31	Analysis of peristaltic waves and their role in migrating <i>Physarum</i> plasmodia. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 284001.	2.8	9
32	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.	5.7	52
33	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.	1.9	5
34	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.	3.5	7
35	Intracellular Pressure Dynamics in Blebbing Cells. <i>Biophysical Journal</i> , 2016, 110, 1168-1179.	0.5	55
36	Coordination of contractility, adhesion and flow in migrating <i>Physarum</i> amoebae. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20141359.	3.4	60

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37	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.	3.6	31
38	Geometric multigrid for an implicit-time immersed boundary method. <i>Advances in Computational Mathematics</i> , 2015, 41, 635-662.	1.6	8
39	A poroelastic immersed boundary method with applications to cell biology. <i>Journal of Computational Physics</i> , 2015, 282, 77-97.	3.8	53
40	Computational Challenges for Simulating Strongly Elastic Flows in Biology. <i>Biological and Medical Physics Series</i> , 2015, , 359-397.	0.4	6
41	Investigating the drought-stress response of hybrid poplar genotypes by metabolite profiling. <i>Tree Physiology</i> , 2014, 34, 1203-1219.	3.1	84
42	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, 5771-5790.	3.9	103
43	Geographical and environmental gradients shape phenotypic trait variation and genetic structure in <i>Populus trichocarpa</i> . <i>New Phytologist</i> , 2014, 201, 1263-1276.	7.3	185
44	Actin-Myosin Spatial Patterns from a Simplified Isotropic Viscoelastic Model. <i>Biophysical Journal</i> , 2014, 107, 863-870.	0.5	16
45	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.	7.3	171
46	Mechanisms of Elastic Enhancement and Hindrance for Finite-Length Undulatory Swimmers in Viscoelastic Fluids. <i>Physical Review Letters</i> , 2014, 113, 098102.	7.8	111
47	An immersed boundary method for two-fluid mixtures. <i>Journal of Computational Physics</i> , 2014, 262, 231-243.	3.8	11
48	A computational model of bleb formation. <i>Mathematical Medicine and Biology</i> , 2013, 30, 115-130.	1.2	53
49	Seasonality and phenology alter functional leaf traits. <i>Oecologia</i> , 2013, 172, 653-665.	2.0	67
50	An Interface-Capturing Regularization Method for Solving the Equations for Two-Fluid Mixtures. <i>Communications in Computational Physics</i> , 2013, 14, 1322-1346.	1.7	7
51	Association Analysis Identifies <i>Melampsora</i> — <i>columbiana</i> Poplar Leaf Rust Resistance SNPs. <i>PLoS ONE</i> , 2013, 8, e78423.	2.5	31
52	Low-Reynolds-number swimming in viscous two-phase fluids. <i>Physical Review E</i> , 2012, 85, 036304.	2.1	13
53	A Multigrid Method for a Model of the Implicit Immersed Boundary Equations. <i>Communications in Computational Physics</i> , 2012, 12, 378-400.	1.7	15
54	Breeding without breeding: selection using the genomic best linear unbiased predictor method (GBLUP). <i>New Forests</i> , 2012, 43, 631-637.	1.7	27

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55	Viscoelastic Immersed Boundary Methods for Zero Reynolds Number Flow. Communications in Computational Physics, 2012, 12, 462-478.	1.7	10
56	Accelerating regrowth of temperate maritime forests due to environmental change. Global Change Biology, 2012, 18, 2026-2040.	9.5	65
57	A high-resolution finite-difference method for simulating two-fluid, viscoelastic gel dynamics. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 1137-1157.	2.4	8
58	Flow-induced channel formation in the cytoplasm of motile cells. Physical Review E, 2011, 84, 016310.	2.1	31
59	On the accuracy of direct forcing immersed boundary methods with projection methods. Journal of Computational Physics, 2010, 229, 2479-2496.	3.8	35
60	Multiphase flow models of biogels from crawling cells to bacterial biofilms. HFSP Journal, 2010, 4, 11-25.	2.5	47
61	Enhanced assimilation rate and water use efficiency with latitude through increased photosynthetic capacity and internal conductance in balsam poplar (<i>Populus balsamifera</i> L.). Plant, Cell and Environment, 2009, 32, 1821-1832.	5.7	140
62	Immersed-boundary-type models of intravascular platelet aggregation. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2087-2104.	6.6	133
63	A wave propagation algorithm for viscoelastic fluids with spatially and temporally varying properties. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2250-2264.	6.6	9
64	A comparison of implicit solvers for the immersed boundary equations. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 2290-2304.	6.6	27
65	An Efficient and Robust Method for Simulating Two-Phase Gel Dynamics. SIAM Journal of Scientific Computing, 2008, 30, 2535-2565.	2.8	20
66	Intelligent behaviors of amoeboid movement based on complex dynamics of soft matter. Soft Matter, 2008, 4, 57-67.	2.7	58
67	Geographic variation in ecophysiological traits of black cottonwood (<i>Populus</i>) in the Pacific Northwest. Research in Canada.. Canadian Journal of Botany, 2007, 85, 1202-1213.	1.1	62
68	Unconditionally stable discretizations of the immersed boundary equations. Journal of Computational Physics, 2007, 222, 702-719.	3.8	89
69	Fibrin gel formation in a shear flow. Mathematical Medicine and Biology, 2007, 24, 111-130.	1.2	65
70	Stability of approximate projection methods on cell-centered grids. Journal of Computational Physics, 2005, 203, 517-538.	3.8	25
71	Nitrogen isotope discrimination in white spruce fed with low concentrations of ammonium and nitrate. Trees - Structure and Function, 2005, 19, 89-98.	1.9	53
72	Asymptotic analysis of PTT type closures for network models with variable junction concentrations. Journal of Non-Newtonian Fluid Mechanics, 2004, 123, 223-235.	2.4	7

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73	Probabilistic modeling of platelet aggregation: effects of activation time and receptor occupancy. Journal of Theoretical Biology, 2002, 219, 33-53.	1.7	7