

Becca Thomases

List of Publications by Year in descending order

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Version: 2024-02-01

23
papers

941
citations

567281

15
h-index

642732

23
g-index

31
all docs

31
docs citations

31
times ranked

558
citing authors

#	ARTICLE	IF	CITATIONS
1	A mathematician's perspective on the Oldroyd B model: Progress and future challenges. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2021, 293, 104573.	2.4	18
2	Three-dimensional viscoelastic instabilities in a four-roll mill geometry at the Stokes limit. <i>Physics of Fluids</i> , 2020, 32, .	4.0	5
3	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
4	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
5	Proper Orthogonal Decomposition (POD) of the flow dynamics for a viscoelastic fluid in a four-roll mill geometry at the Stokes limit. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019, 264, 48-61.	2.4	11
6	Orientation dependent elastic stress concentration at tips of slender objects translating in viscoelastic fluids. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	11
7	Immersed Boundary Smooth Extension (IBSE): A high-order method for solving incompressible flows in arbitrary smooth domains. <i>Journal of Computational Physics</i> , 2017, 335, 155-178.	3.8	41
8	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
9	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
10	Equilibrium circulation and stress distribution in viscoelastic creeping flow. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2016, 229, 101-111.	2.4	5
11	Immersed boundary smooth extension: A high-order method for solving PDE on arbitrary smooth domains using Fourier spectral methods. <i>Journal of Computational Physics</i> , 2016, 304, 252-274.	3.8	61
12	Computational Challenges for Simulating Strongly Elastic Flows in Biology. <i>Biological and Medical Physics Series</i> , 2015, , 359-397.	0.4	6
13	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
14	An analysis of the effect of stress diffusion on the dynamics of creeping viscoelastic flow. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011, 166, 1221-1228.	2.4	34
15	A Stokesian viscoelastic flow: Transition to oscillations and mixing. <i>Physica D: Nonlinear Phenomena</i> , 2011, 240, 1602-1614.	2.8	26
16	Symmetric factorization of the conformation tensor in viscoelastic fluid models. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011, 166, 546-553.	2.4	78
17	Transition to Mixing and Oscillations in a Stokesian Viscoelastic Flow. <i>Physical Review Letters</i> , 2009, 103, 094501.	7.8	51
18	Emergence of singular structures in Oldroyd-B fluids. <i>Physics of Fluids</i> , 2007, 19, .	4.0	72

#	ARTICLE	IF	CITATIONS
19	Global existence for three-dimensional incompressible isotropic elastodynamics. Communications on Pure and Applied Mathematics, 2007, 60, 1707-1730.	3.1	62
20	A DECAY THEOREM FOR SOME SYMMETRIC HYPERBOLIC SYSTEMS. Journal of Hyperbolic Differential Equations, 2006, 03, 475-480.	0.5	1
21	LOCAL ENERGY DECAY FOR SOLUTIONS OF MULTI-DIMENSIONAL ISOTROPIC SYMMETRIC HYPERBOLIC SYSTEMS. Journal of Hyperbolic Differential Equations, 2006, 03, 673-690.	0.5	23
22	Global existence for three-dimensional incompressible isotropic elastodynamics via the incompressible limit. Communications on Pure and Applied Mathematics, 2005, 58, 750-788.	3.1	80
23	Long Time Behavior of Solutions to the 3D Compressible Euler Equations with Damping. Communications in Partial Differential Equations, 2003, 28, 795-816.	2.2	169