Becca Thomases

List of Publications by Year
in descending order

23	941	567281	642732
papers	citations	15	23
		h-index	g-index

31	31	31	558
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Mechanisms of Elastic Enhancement and Hindrance for Finite-Length Undulatory Swimmers in Viscoelastic Fluids. Physical Review Letters, 2014, 113, 098102.	7.8	111
3	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
4	Symmetric factorization of the conformation tensor in viscoelastic fluid models. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 546-553.	2.4	78
5	Emergence of singular structures in Oldroyd-B fluids. Physics of Fluids, 2007, 19, .	4.0	72
6	Global existence for three–dimensional incompressible isotropic elastodynamics. Communications on Pure and Applied Mathematics, 2007, 60, 1707-1730.	3.1	62
7	Immersed boundary smooth extension: A high-order method for solving PDE on arbitrary smooth domains using Fourier spectral methods. Journal of Computational Physics, 2016, 304, 252-274.	3.8	61
8	Transition to Mixing and Oscillations in a Stokesian Viscoelastic Flow. Physical Review Letters, 2009, 103, 094501.	7.8	51
9	Immersed Boundary Smooth Extension (IBSE): A high-order method for solving incompressible flows in arbitrary smooth domains. Journal of Computational Physics, 2017, 335, 155-178.	3.8	41
10	Flagellar swimming in viscoelastic fluids: role of fluid elastic stress revealed by simulations based on experimental data. Journal of the Royal Society Interface, 2017, 14, 20170289.	3.4	37
11	An analysis of the effect of stress diffusion on the dynamics of creeping viscoelastic flow. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 1221-1228.	2.4	34
12	A Stokesian viscoelastic flow: Transition to oscillations and mixing. Physica D: Nonlinear Phenomena, 2011, 240, 1602-1614.	2.8	26
13	LOCAL ENERGY DECAY FOR SOLUTIONS OF MULTI-DIMENSIONAL ISOTROPIC SYMMETRIC HYPERBOLIC SYSTEMS. Journal of Hyperbolic Differential Equations, 2006, 03, 673-690.	0.5	23
14	The role of body flexibility in stroke enhancements for finite-length undulatory swimmers in viscoelastic fluids. Journal of Fluid Mechanics, 2017, 825, 109-132.	3.4	23
15	A mathematician's perspective on the Oldroyd B model: Progress and future challenges. Journal of Non-Newtonian Fluid Mechanics, 2021, 293, 104573.	2.4	18
16	Proper Orthogonal Decomposition (POD) of the flow dynamics for a viscoelastic fluid in a four-roll mill geometry at the Stokes limit. Journal of Non-Newtonian Fluid Mechanics, 2019, 264, 48-61.	2.4	11
17	Orientation dependent elastic stress concentration at tips of slender objects translating in viscoelastic fluids. Physical Review Fluids, 2019, 4, .	2.5	11
18	Convergent solutions of Stokes Oldroyd-B boundary value problems using the Immersed Boundary Smooth Extension (IBSE) method. Journal of Non-Newtonian Fluid Mechanics, 2019, 268, 56-65.	2.4	10

#	Article	IF	Citations
19	Computational Challenges for Simulating Strongly Elastic Flows in Biology. Biological and Medical Physics Series, 2015, , 359-397.	0.4	6
20	Polymer stress growth in viscoelastic fluids in oscillating extensional flows with applications to micro-organism locomotion. Journal of Non-Newtonian Fluid Mechanics, 2019, 269, 47-56.	2.4	6
21	Equilibrium circulation and stress distribution in viscoelastic creeping flow. Journal of Non-Newtonian Fluid Mechanics, 2016, 229, 101-111.	2.4	5
22	Three-dimensional viscoelastic instabilities in a four-roll mill geometry at the Stokes limit. Physics of Fluids, 2020, 32, .	4.0	5
23	A DECAY THEOREM FOR SOME SYMMETRIC HYPERBOLIC SYSTEMS. Journal of Hyperbolic Differential Equations, 2006, 03, 475-480.	0.5	1