

Laurette S Tuckerman

List of Publications by Year in descending order

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87
papers

4,039
citations

117625

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118850

62
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89
all docs

89
docs citations

89
times ranked

2112
citing authors

#	ARTICLE	IF	CITATIONS
1	Extreme events in transitional turbulence. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022, 380, 20210036.	3.4	11
2	Frequency prediction from exact or self-consistent mean flows. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	8
3	Coinciding local bifurcations in the Navier-Stokes equations. <i>Europhysics Letters</i> , 2021, 135, 24002.	2.0	3
4	Patterns in Wall-Bounded Shear Flows. <i>Annual Review of Fluid Mechanics</i> , 2020, 52, 343-367.	25.0	66
5	Ricocheting inclined layer convection states. <i>Journal of Fluid Mechanics</i> , 2020, 900, .	3.4	1
6	Turbulent cascade, bottleneck, and thermalized spectrum in hyperviscous flows. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	15
7	Statistical transition to turbulence in plane channel flow. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	26
8	Computational Challenges of Nonlinear Systems. <i>Advances in Dynamics, Patterns, Cognition</i> , 2020, , 249-277.	0.3	3
9	Bifurcation analysis and frequency prediction in shear-driven cavity flow. <i>Journal of Fluid Mechanics</i> , 2019, 875, 725-757.	3.4	24
10	Faraday instability on a sphere: numerical simulation. <i>Journal of Fluid Mechanics</i> , 2019, 870, 433-459.	3.4	9
11	Order-of-Magnitude Speedup for Steady States and Traveling Waves via Stokes Preconditioning in Channelflow and Openpipeflow. <i>Computational Methods in Applied Sciences (Springer)</i> , 2019, , 3-31.	0.3	6
12	Spirals and ribbons in counter-rotating Taylor-Couette flow: Frequencies from mean flows and heteroclinic orbits. <i>Physical Review Fluids</i> , 2019, 4, .	2.5	9
13	Self-sustaining process in Taylor-Couette flow. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	17
14	Computing Optimal Forcing Using Laplace Preconditioning. <i>Communications in Computational Physics</i> , 2017, 22, 1508-1532.	1.7	9
15	Universal continuous transition to turbulence in a planar shear flow. <i>Journal of Fluid Mechanics</i> , 2017, 824, .	3.4	70
16	Couette-Poiseuille flow experiment with zero mean advection velocity: Subcritical transition to turbulence. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	28
17	Hysteresis of dynamos in rotating spherical shell convection. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	30
18	Faraday instability on a sphere: Floquet analysis. <i>Journal of Fluid Mechanics</i> , 2016, 805, 591-610.	3.4	25

#	ARTICLE	IF	CITATIONS
19	Turbulent-laminar patterns in shear flows without walls. <i>Journal of Fluid Mechanics</i> , 2016, 791, .	3.4	33
20	Bifurcations of rotating waves in rotating spherical shell convection. <i>Physical Review E</i> , 2015, 92, 053015.	2.1	13
21	Laplacian Preconditioning for the Inverse Arnoldi Method. <i>Communications in Computational Physics</i> , 2015, 18, 1336-1351.	1.7	10
22	Prediction of frequencies in thermosolutal convection from mean flows. <i>Physical Review E</i> , 2015, 91, 043009.	2.1	50
23	Numerical simulation of supersquare patterns in Faraday waves. <i>Journal of Fluid Mechanics</i> , 2015, 772, .	3.4	26
24	Taylor vortices versus Taylor columns. <i>Journal of Fluid Mechanics</i> , 2014, 750, 1-4.	3.4	25
25	Turbulent-laminar patterns in plane Poiseuille flow. <i>Physics of Fluids</i> , 2014, 26, .	4.0	59
26	Numerical Bifurcation Methods and their Application to Fluid Dynamics: Analysis beyond Simulation. <i>Communications in Computational Physics</i> , 2014, 15, 1-45.	1.7	136
27	Alternating Hexagonal and Striped Patterns in Faraday Surface Waves. <i>Physical Review Letters</i> , 2012, 109, 164501.	7.8	32
28	Amplitudes from eigenvalues. <i>Fluid Dynamics Research</i> , 2012, 44, 031202.	1.3	6
29	Convection patterns in a spherical fluid shell. <i>Physical Review E</i> , 2011, 83, 046304.	2.1	32
30	Stable Vortex-Bright-Soliton Structures in Two-Component Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2010, 105, 160405.	7.8	99
31	Extreme multiplicity in cylindrical Rayleigh-Bénard convection. I. Time dependence and oscillations. <i>Physical Review E</i> , 2010, 81, 036320.	2.1	33
32	Extreme multiplicity in cylindrical Rayleigh-Bénard convection. II. Bifurcation diagram and symmetry classification. <i>Physical Review E</i> , 2010, 81, 036321.	2.1	39
33	Influence of counter-rotating von Kármán flow on cylindrical Rayleigh-Bénard convection. <i>Physical Review E</i> , 2010, 81, 036322.	2.1	8
34	Instability of uniform turbulent plane Couette flow: spectra, probability distribution functions and K ϵ closure model. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2010, , 59-66.	0.2	6
35	Numerical simulation of Faraday waves. <i>Journal of Fluid Mechanics</i> , 2009, 635, 1-26.	3.4	77
36	Order parameter in laminar-turbulent patterns. <i>Springer Proceedings in Physics</i> , 2009, , 89-91.	0.2	2

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37	Statistical analysis of the transition to turbulent-laminar banded patterns in plane Couette flow. Journal of Physics: Conference Series, 2008, 137, 012029.	0.4	8
38	GeoFlow: On symmetry-breaking bifurcations of heated spherical shell convection. Journal of Physics: Conference Series, 2008, 137, 012027.	0.4	4
39	Mean flow of turbulent-laminar patterns in plane Couette flow. Journal of Fluid Mechanics, 2007, 576, 109-137.	3.4	110
40	Poloidal-toroidal decomposition in a finite cylinder. I: Influence matrices for the magnetohydrodynamic equations. Journal of Computational Physics, 2007, 227, 1523-1543.	3.8	9
41	Poloidal-toroidal decomposition in a finite cylinder. Journal of Computational Physics, 2007, 227, 1544-1566.	3.8	7
42	Mean flow and modeling of turbulent-laminar patterns in plane Couette flow. Springer Proceedings in Physics, 2007, , 224-226.	0.2	0
43	Standing and travelling waves in cylindrical Rayleigh-Bénard convection. Journal of Fluid Mechanics, 2006, 559, 279.	3.4	33
44	Turbulent-Laminar Patterns in Plane Couette Flow. , 2005, , 107-127.		11
45	Computational Study of Turbulent Laminar Patterns in Couette Flow. Physical Review Letters, 2005, 94, 014502.	7.8	185
46	Survey of instability thresholds of flow between exactly counter-rotating disks. Journal of Fluid Mechanics, 2004, 511, 45-65.	3.4	35
47	Causes and Correlations of Master's Degree Statistics. Physics Today, 2004, 57, 17-17.	0.3	0
48	Numerical methods for bifurcation problems. Nonlinear Phenomena and Complex Systems, 2004, , 75-83.	0.0	2
49	Binary fluid convection as a 2 x 2 matrix problem. Nonlinear Phenomena and Complex Systems, 2004, , 353-359.	0.0	0
50	Gross-Pitaevskii dynamics of Bose-Einstein condensates and superfluid turbulence. Fluid Dynamics Research, 2003, 33, 509-544.	1.3	45
51	The 1[2] mode interaction in exactly counter-rotating von Kármán swirling flow. Journal of Fluid Mechanics, 2003, 477, .	3.4	73
52	A General Methodology for Studying the Hydrodynamic Stability of Flows in Enclosures. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2003, , 38-55.	0.3	0
53	Transient growth in Taylor-Couette flow. Physics of Fluids, 2002, 14, 3475-3484.	4.0	28
54	Symmetry Breaking and Turbulence in Perturbed Plane Couette Flow. Theoretical and Computational Fluid Dynamics, 2002, 16, 91-97.	2.2	5

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55	Transient Growth in Exactly Counter-Rotating Couette-Taylor Flow. Theoretical and Computational Fluid Dynamics, 2002, 16, 43-48.	2.2	5
56	Thermosolutal and binary fluid convection as a $2\tilde{A}-2$ matrix problem. Physica D: Nonlinear Phenomena, 2001, 156, 325-363.	2.8	17
57	Bifurcation theory for three-dimensional flow in the wake of a circular cylinder. Physical Review E, 2000, 61, 5247-5252.	2.1	60
58	Bifurcation Analysis for Timesteppers. The IMA Volumes in Mathematics and Its Applications, 2000, , 453-466.	0.5	107
59	Stability analysis of perturbed plane Couette flow. Physics of Fluids, 1999, 11, 1187-1195.	4.0	45
60	Marangoni convection in binary mixtures with Soret effect. Journal of Fluid Mechanics, 1998, 375, 143-177.	3.4	98
61	Bifurcation analysis of double-diffusive convection with opposing horizontal thermal and solutal gradients. Physics of Fluids, 1998, 10, 850-858.	4.0	66
62	Linear and Nonlinear Stability Analysis of Perturbed Plane Couette Flow. Fluid Mechanics and Its Applications, 1998, , 123-126.	0.2	2
63	Scaling of the transition to parametrically driven surface waves in highly dissipative systems. Physical Review E, 1997, 55, R3832-R3835.	2.1	29
64	Stokes preconditioning for the inverse power method. , 1997, , 75-76.		7
65	Stability of periodic arrays of vortices. Physics of Fluids, 1996, 8, 487-495.	4.0	51
66	Two-frequency parametric excitation of surface waves. Physical Review E, 1996, 54, 507-513.	2.1	71
67	Asymmetry and Hopf bifurcation in spherical Couette flow. Physics of Fluids, 1995, 7, 80-91.	4.0	205
68	Parametric instability of the interface between two fluids. Journal of Fluid Mechanics, 1994, 279, 49-68.	3.4	437
69	Symmetry-breaking bifurcations in one-dimensional excitable media. Physical Review A, 1992, 46, 5054-5062.	2.5	37
70	Dynamical mechanism for the formation of metastable phases: The case of two nonconserved order parameters. Physical Review A, 1992, 46, 3178-3192.	2.5	25
71	Crystal growth at long times: Critical behavior at the crossover from diffusion to kinetics-limited regimes. Physical Review A, 1992, 45, 2399-2415.	2.5	67
72	Scanning electrochemical microscopy: theory and application of the transient (chronoamperometric) SECM response. Analytical Chemistry, 1991, 63, 1282-1288.	6.5	110

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73	Comment on "Bifurcation structure and the Eckhaus instability". Physical Review Letters, 1991, 67, 1051-1051.	7.8	8
74	Dynamical mechanism for the formation of metastable phases. Physical Review Letters, 1991, 67, 1266-1269.	7.8	59
75	Bifurcation analysis of the Eckhaus instability. Physica D: Nonlinear Phenomena, 1990, 46, 57-86.	2.8	103
76	Spiral-wave dynamics in a simple model of excitable media: The transition from simple to compound rotation. Physical Review A, 1990, 42, 2489-2492.	2.5	282
77	Bifurcation Analysis of the Eckhaus Instability. Woodward Conference, 1990, , 321-324.	0.3	0
78	Travelling Waves in Axisymmetric Convection. NATO ASI Series Series B: Physics, 1990, , 73-75.	0.2	0
79	A method for exponential propagation of large systems of stiff nonlinear differential equations. Journal of Scientific Computing, 1989, 4, 327-354.	2.3	100
80	Traveling waves in axisymmetric convection: The role of sidewall conductivity. Physica D: Nonlinear Phenomena, 1989, 37, 288-294.	2.8	18
81	Divergence-free velocity fields in nonperiodic geometries. Journal of Computational Physics, 1989, 80, 403-441.	3.8	92
82	Transformations of matrices into banded form. Journal of Computational Physics, 1989, 84, 360-376.	3.8	8
83	Steady-state solving via stokes preconditioning; Recursion relations for elliptic operators. , 1989, , 573-577.		19
84	Global Bifurcation to Traveling Waves in Axisymmetric Convection. Physical Review Letters, 1988, 61, 408-411.	7.8	38
85	Simulation of flow between concentric rotating spheres. Part 1. Steady states. Journal of Fluid Mechanics, 1987, 185, 1-30.	3.4	110
86	Simulation of flow between concentric rotating spheres. Part 2. Transitions. Journal of Fluid Mechanics, 1987, 185, 31-65.	3.4	78
87	Motion of polymorphonuclear leukocytes: Theory of receptor redistribution and the frictional force on a moving cell. Cell Motility, 1981, 1, 205-235.	1.8	17