Roger E Khayat

List of Publications by Year
in descending order

62	644	623734	642732
papers	citations	14 h-index	23 g-index

62	62	62	311
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Finite-amplitude Rayleighâ€“BÃ©nard convection and pattern selection for viscoelastic fluids. Journal of Fluid Mechanics, 2005, 529, 221-251.	3.4	78
2	Finite-amplitude Taylor-vortex flow of viscoelastic fluids. Journal of Fluid Mechanics, 1999, 400, 33-58.	3.4	38
3	Pattern selection in the thermal convection of non-Newtonian fluids. Journal of Fluid Mechanics, 2011, 668, 500-550.	3.4	36
4	Viscoelastic effects on frequency tuning of a dielectric elastomer membrane resonator. Journal of Applied Physics, 2014, 115, 124106.	2.5	34
5	Influence of inertia, gravity, and substrate topography on the two-dimensional transient coating flow of a thin Newtonian fluid film. Physics of Fluids, 2001, 13, 355-367.	4.0	30
6	Three-dimensional boundary element analysis of drop deformation in confined flow for Newtonian and viscoelastic systems. International Journal for Numerical Methods in Fluids, 2000, 34, 241-275.	1.6	27
7	Spread of a non-Newtonian liquid jet over a horizontal plate. Journal of Fluid Mechanics, 2008, 613, 411-443.	3.4	26
8	Impinging jet flow and hydraulic jump on a rotating disk. Journal of Fluid Mechanics, 2018, 839, 525-560.	3.4	25
9	Thin-film flow of a viscoelastic fluid on an axisymmetric substrate of arbitrary shape. Journal of Fluid Mechanics, 2006, 552, 37.	3.4	22
10	Methods to improve harvested energy and conversion efficiency of viscoelastic dielectric elastomer generators. Journal of Applied Physics, 2017, 121, .	2.5	22
11	A low-dimensional approach to nonlinear plane-Couette flow of viscoelastic fluids. Physics of Fluids, 2000, 12, 345-365.	4.0	21
12	A coupled boundary/finite-element approach for the three-dimensional simulation of air venting in blow molding and thermoforming. International Journal for Numerical Methods in Engineering, 1998, 43, 151-174.	2.8	20
13	An adaptive boundary-element approach for 3D transient free surface cavity flow, as applied to polymer processing. International Journal for Numerical Methods in Engineering, 2001, 50, 1347-1368.	2.8	19
14	The role of gravity in the prediction of the circular hydraulic jump radius for high-viscosity liquids. Journal of Fluid Mechanics, 2019, 862, 128-161.	3.4	18
15	A non-linear dynamical system approach to finite amplitude Taylor-Vortex flow of shear-thinning fluids. International Journal for Numerical Methods in Fluids, 2004, 45, 321-340.	1.6	14
16	The effects of gravity and surface tension on the circular hydraulic jump for low- and high-viscosity liquids: A numerical investigation. Physics of Fluids, 2021, 33, .	4.0	14
17	A boundary element analysis of multiply connected three-dimensional cavity mixing flow of polymer solutions. International Journal for Numerical Methods in Fluids, 1999, 31, 1173-1194.	1.6	13
18	A boundary-only approach to the deformation of a shear-thinning drop in extensional Newtonian flow. International Journal for Numerical Methods in Fluids, 2000, 33, 559-581.	1.6	13

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19	A low-dimensional approach to nonlinear planeâ€“Poiseuille flow of viscoelastic fluids. Physics of Fluids, 2002, 14, 1757-1767.	4.0	13
20	Impinging planar jet flow on a horizontal surface with slip. Journal of Fluid Mechanics, 2016, 808, 258-289.	3.4	13
21	The influence of heating on liquid jet spreading and hydraulic jump. Journal of Fluid Mechanics, 2020, 883, .	3.4	12
22	On the non-circular hydraulic jump for an impinging inclined jet. Physics of Fluids, 2022, 34, .	4.0	11
23	Transient coating flow of a thin non-Newtonian fluid film. Physics of Fluids, 2002, 14, 2202.	4.0	10
24	Free-surface jet flow of a shear-thinning power-law fluid near the channel exit. Journal of Fluid Mechanics, 2014, 748, 580-617.	3.4	9
25	Influence of inertia and topography in thin-cavity flow. Physics of Fluids, 2002, 14, 1703-1719.	4.0	8
26	Influence of initial conditions on transient two-dimensional thin-film flow. Physics of Fluids, 2002, 14, 4448-4451.	4.0	8
27	Influence of inertia on the transient axisymmetric free-surface flow inside thin cavities of arbitrary shape. Physics of Fluids, 2001, 13, 3636-3651.	4.0	7
28	TRANSIENT LINEAR AND NONLINEAR HEAT CONDUCTION IN WEAKLY MODULATED DOMAINS. Numerical Heat Transfer; Part A: Applications, 2003, 43, 481-500.	2.1	7
29	Three-dimensional lubrication flow of a Herschel-Bulkley fluid. International Journal for Numerical Methods in Fluids, 2006, 50, 511-530.	1.6	7
30	Slipping free jet flow near channel exit at moderate Reynolds number for large slip length. Journal of Fluid Mechanics, 2016, 793, 667-708.	3.4	7
31	Influence of inertia, topography and gravity on transient axisymmetric thin-film flow. International Journal for Numerical Methods in Fluids, 2004, 45, 391-419.	1.6	6
32	Flow of viscoelastic jet with moderate inertia near channel exit. Journal of Fluid Mechanics, 2009, 639, 65-100.	3.4	6
33	Shear-thinning flow in weakly modulated channels. International Journal for Numerical Methods in Fluids, 2005, 48, 467-499.	1.6	5
34	Initial development of a free-surface wall jet at moderate Reynolds number. Journal of Fluid Mechanics, 2017, 826, 235-269.	3.4	5
35	Onset of thermal convection of a weakly rarefied Maxwellian gas: A continuum-slip approach. Physics of Fluids, 2021, 33, .	4.0	4
36	Effect of substrate movement on shock formation in pressure-driven coating flow. Physics of Fluids, 2004, 16, 1818-1821.	4.0	3

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37	On the interplay between inertial and viscoelastic effects for the flow in weakly modulated channels. International Journal for Numerical Methods in Fluids, 2006, 51, 117-157.	1.6	3
38	Interplay Between Inertia and Elasticity in Film Casting. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	1.5	3
39	Non-axisymmetric annular curtain stability. Physics of Fluids, 2013, 25, .	4.0	3
40	A Lagrangian boundary element approach to transient three-dimensional free surface flow in thin cavities. International Journal for Numerical Methods in Fluids, 2001, 37, 399-418.	1.6	2
41	Three-dimensional transient free-surface flow of viscous fluids inside cavities of arbitrary shape. International Journal for Numerical Methods in Fluids, 2003, 41, 1021-1051.	1.6	2
42	Transient free-surface flow of a viscoelastic fluid in a narrow channel. International Journal for Numerical Methods in Fluids, 2004, 46, 637-661.	1.6	2
43	Steady two-layer flow in narrow channels of variable width. Physical Review E, 2009, 79, 046326.	2.1	2
44	A comparative study on lowâ€order, amplitudeâ€equation and perturbation approaches in thermal convection. International Journal for Numerical Methods in Fluids, 2012, 69, 1762-1785.	1.6	2
45	Effect of flow confinement on the hydrodynamics and heat transfer characteristics of swirling impinging jets. AIP Conference Proceedings, 2018, , .	0.4	2
46	The planar spread of a liquid jet and hydraulic jump on a porous layer. Physics of Fluids, 2021, 33, .	4.0	2
47	An adaptive Lagrangian boundary element approach for three-dimensional transient free-surface Stokes flow as applied to extrusion, thermoforming, and rheometry. International Journal for Numerical Methods in Fluids, 2001, 36, 1-33.	1.6	1
48	A low-dimensional spectral approach for transient axisymmetric free-surface flow inside thin cavities of arbitrary shape. International Journal for Numerical Methods in Fluids, 2002, 38, 861-879.	1.6	1
49	Three-dimensional viscous flow over rotating periodic structures. International Journal for Numerical Methods in Engineering, 2003, 57, 617-636.	2.8	1
50	A low-dimensional description of transient shear-thinning free-surface flow in thin cavities, as applied to injection molding. International Journal for Numerical Methods in Fluids, 2004, 44, 91-114.	1.6	1
51	Stability of high-speed two-layer film casting of Newtonian fluids. International Journal for Numerical Methods in Fluids, 2006, 52, 31-61.	1.6	1
52	Transient twoâ€layer thinâ€film flow. International Journal for Numerical Methods in Fluids, 2011, 66, 581-607.	1.6	1
53	Steady and transient thin-jet flow of a viscoelastic fluid. Physical Review E, 2013, 88, 053005.	2.1	1
54	An asymptotic-numerical comparative study for axisymmetric free surface liquid jet near and far from exit at high Reynolds number. International Journal of Numerical Methods for Heat and Fluid Flow, 2020, 30, 4493-4527.	2.8	1

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55	Coating Flow Near Channel Exit. A Theoretical Perspective. Fluids, 2020, 5, 180.	1.7	1
56	An adaptive boundaryâ€element approach for 3D transient free surface cavity flow, as applied to polymer processing. International Journal for Numerical Methods in Engineering, 2001, 50, 1347-1368.	2.8	1
57	A low-dimensional spectral approach for the nonlinear overstability of purely elastic fluids. International Journal for Numerical Methods in Fluids, 2002, 38, 811-848.	1.6	0
58	A low-dimensional spectral approach for transient free-surface flow inside thin cavities of symmetric shape. International Journal for Numerical Methods in Fluids, 2002, 39, 719-741.	1.6	0
59	A spectral/finite-difference approach for narrow-channel flow with inertia. International Journal for Numerical Methods in Fluids, 2003, 42, 383-398.	1.6	0
60	A hybrid spectral/finite-difference to transient free-surface flow inside thin symmetric cavities of longitudinally varying thickness. International Journal for Numerical Methods in Fluids, 2005, 48, 61-83.	1.6	0
61	A spectral approach to inertial confined thinâ€film flow. International Journal for Numerical Methods in Fluids, 2013, 71, 98-117.	1.6	0
62	On the long-time transient formation of sink zones in near-critical fluids. A theoretical perspective. Journal of Fluid Mechanics, 2021, 915, .	3.4	0