

# Roger E Khayat

## List of Publications by Year in descending order

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62  
papers

644  
citations

623734

14  
h-index

642732

23  
g-index

62  
all docs

62  
docs citations

62  
times ranked

311  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the non-circular hydraulic jump for an impinging inclined jet. <i>Physics of Fluids</i> , 2022, 34, .	4.0	11
2	The effects of gravity and surface tension on the circular hydraulic jump for low- and high-viscosity liquids: A numerical investigation. <i>Physics of Fluids</i> , 2021, 33, .	4.0	14
3	The planar spread of a liquid jet and hydraulic jump on a porous layer. <i>Physics of Fluids</i> , 2021, 33, .	4.0	2
4	Onset of thermal convection of a weakly rarefied Maxwellian gas: A continuum-slip approach. <i>Physics of Fluids</i> , 2021, 33, .	4.0	4
5	On the long-time transient formation of sink zones in near-critical fluids. A theoretical perspective. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	3.4	0
6	The influence of heating on liquid jet spreading and hydraulic jump. <i>Journal of Fluid Mechanics</i> , 2020, 883, .	3.4	12
7	An asymptotic-numerical comparative study for axisymmetric free surface liquid jet near and far from exit at high Reynolds number. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2020, 30, 4493-4527.	2.8	1
8	Coating Flow Near Channel Exit. A Theoretical Perspective. <i>Fluids</i> , 2020, 5, 180.	1.7	1
9	The role of gravity in the prediction of the circular hydraulic jump radius for high-viscosity liquids. <i>Journal of Fluid Mechanics</i> , 2019, 862, 128-161.	3.4	18
10	Impinging jet flow and hydraulic jump on a rotating disk. <i>Journal of Fluid Mechanics</i> , 2018, 839, 525-560.	3.4	25
11	Effect of flow confinement on the hydrodynamics and heat transfer characteristics of swirling impinging jets. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	2
12	Methods to improve harvested energy and conversion efficiency of viscoelastic dielectric elastomer generators. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	22
13	Initial development of a free-surface wall jet at moderate Reynolds number. <i>Journal of Fluid Mechanics</i> , 2017, 826, 235-269.	3.4	5
14	Impinging planar jet flow on a horizontal surface with slip. <i>Journal of Fluid Mechanics</i> , 2016, 808, 258-289.	3.4	13
15	Slipping free jet flow near channel exit at moderate Reynolds number for large slip length. <i>Journal of Fluid Mechanics</i> , 2016, 793, 667-708.	3.4	7
16	Viscoelastic effects on frequency tuning of a dielectric elastomer membrane resonator. <i>Journal of Applied Physics</i> , 2014, 115, 124106.	2.5	34
17	Free-surface jet flow of a shear-thinning power-law fluid near the channel exit. <i>Journal of Fluid Mechanics</i> , 2014, 748, 580-617.	3.4	9
18	A spectral approach to inertial confined thin-film flow. <i>International Journal for Numerical Methods in Fluids</i> , 2013, 71, 98-117.	1.6	0

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19	Non-axisymmetric annular curtain stability. <i>Physics of Fluids</i> , 2013, 25, .	4.0	3
20	Steady and transient thin-jet flow of a viscoelastic fluid. <i>Physical Review E</i> , 2013, 88, 053005.	2.1	1
21	A comparative study on low-order, amplitude equation and perturbation approaches in thermal convection. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 69, 1762-1785.	1.6	2
22	Pattern selection in the thermal convection of non-Newtonian fluids. <i>Journal of Fluid Mechanics</i> , 2011, 668, 500-550.	3.4	36
23	Transient two-layer thin-film flow. <i>International Journal for Numerical Methods in Fluids</i> , 2011, 66, 581-607.	1.6	1
24	Steady two-layer flow in narrow channels of variable width. <i>Physical Review E</i> , 2009, 79, 046326.	2.1	2
25	Flow of viscoelastic jet with moderate inertia near channel exit. <i>Journal of Fluid Mechanics</i> , 2009, 639, 65-100.	3.4	6
26	Interplay Between Inertia and Elasticity in Film Casting. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2008, 130, .	1.5	3
27	Spread of a non-Newtonian liquid jet over a horizontal plate. <i>Journal of Fluid Mechanics</i> , 2008, 613, 411-443.	3.4	26
28	Thin-film flow of a viscoelastic fluid on an axisymmetric substrate of arbitrary shape. <i>Journal of Fluid Mechanics</i> , 2006, 552, 37.	3.4	22
29	Three-dimensional lubrication flow of a Herschel-Bulkley fluid. <i>International Journal for Numerical Methods in Fluids</i> , 2006, 50, 511-530.	1.6	7
30	Stability of high-speed two-layer film casting of Newtonian fluids. <i>International Journal for Numerical Methods in Fluids</i> , 2006, 52, 31-61.	1.6	1
31	On the interplay between inertial and viscoelastic effects for the flow in weakly modulated channels. <i>International Journal for Numerical Methods in Fluids</i> , 2006, 51, 117-157.	1.6	3
32	Shear-thinning flow in weakly modulated channels. <i>International Journal for Numerical Methods in Fluids</i> , 2005, 48, 467-499.	1.6	5
33	A hybrid spectral/finite-difference to transient free-surface flow inside thin symmetric cavities of longitudinally varying thickness. <i>International Journal for Numerical Methods in Fluids</i> , 2005, 48, 61-83.	1.6	0
34	Finite-amplitude Rayleigh-Bénard convection and pattern selection for viscoelastic fluids. <i>Journal of Fluid Mechanics</i> , 2005, 529, 221-251.	3.4	78
35	Effect of substrate movement on shock formation in pressure-driven coating flow. <i>Physics of Fluids</i> , 2004, 16, 1818-1821.	4.0	3
36	A low-dimensional description of transient shear-thinning free-surface flow in thin cavities, as applied to injection molding. <i>International Journal for Numerical Methods in Fluids</i> , 2004, 44, 91-114.	1.6	1

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37	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
38	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
39	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
40	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
41	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
42	Three-dimensional viscous flow over rotating periodic structures. International Journal for Numerical Methods in Engineering, 2003, 57, 617-636.	2.8	1
43	TRANSIENT LINEAR AND NONLINEAR HEAT CONDUCTION IN WEAKLY MODULATED DOMAINS. Numerical Heat Transfer; Part A: Applications, 2003, 43, 481-500.	2.1	7
44	Influence of inertia and topography in thin-cavity flow. Physics of Fluids, 2002, 14, 1703-1719.	4.0	8
45	A low-dimensional approach to nonlinear plane Poiseuille flow of viscoelastic fluids. Physics of Fluids, 2002, 14, 1757-1767.	4.0	13
46	Influence of initial conditions on transient two-dimensional thin-film flow. Physics of Fluids, 2002, 14, 4448-4451.	4.0	8
47	Transient coating flow of a thin non-Newtonian fluid film. Physics of Fluids, 2002, 14, 2202.	4.0	10
48	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
49	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
50	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
51	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
52	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
53	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
54	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

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55	Influence of inertia, gravity, and substrate topography on the two-dimensional transient coating flow of a thin Newtonian fluid film. <i>Physics of Fluids</i> , 2001, 13, 355-367.	4.0	30
56	An adaptive boundaryâ€element approach for 3D transient free surface cavity flow, as applied to polymer processing. <i>International Journal for Numerical Methods in Engineering</i> , 2001, 50, 1347-1368.	2.8	1
57	A low-dimensional approach to nonlinear plane-Couette flow of viscoelastic fluids. <i>Physics of Fluids</i> , 2000, 12, 345-365.	4.0	21
58	A boundary-only approach to the deformation of a shear-thinning drop in extensional Newtonian flow. <i>International Journal for Numerical Methods in Fluids</i> , 2000, 33, 559-581.	1.6	13
59	Three-dimensional boundary element analysis of drop deformation in confined flow for Newtonian and viscoelastic systems. <i>International Journal for Numerical Methods in Fluids</i> , 2000, 34, 241-275.	1.6	27
60	Finite-amplitude Taylor-vortex flow of viscoelastic fluids. <i>Journal of Fluid Mechanics</i> , 1999, 400, 33-58.	3.4	38
61	A boundary element analysis of multiply connected three-dimensional cavity mixing flow of polymer solutions. <i>International Journal for Numerical Methods in Fluids</i> , 1999, 31, 1173-1194.	1.6	13
62	A coupled boundary/finite-element approach for the three-dimensional simulation of air venting in blow molding and thermoforming. <i>International Journal for Numerical Methods in Engineering</i> , 1998, 43, 151-174.	2.8	20