

# Rob J Poole

## List of Publications by Citations

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124  
papers

3,116  
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34  
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48  
g-index

142  
ext. papers

3,615  
ext. citations

3.4  
avg, IF

5.62  
L-index

#	Paper	IF	Citations
124	Purely elastic flow asymmetries. <i>Physical Review Letters</i> , <b>2007</b> , 99, 164503	7.4	148
123	Laminar natural convection of power-law fluids in a square enclosure with differentially heated side walls subjected to constant temperatures. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2011</b> , 166, 1049-1063	2.7	127
122	Laminar natural convection of Bingham fluids in a square enclosure with differentially heated side walls. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2010</b> , 165, 901-913	2.7	123
121	On the reproducibility of the rheology of shear-thinning liquids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2001</b> , 97, 99-124	2.7	84
120	Near-wake characteristics of a model horizontal axis tidal stream turbine. <i>Renewable Energy</i> , <b>2014</b> , 63, 222-235	8.1	74
119	Non-dimensional scaling of tidal stream turbines. <i>Energy</i> , <b>2012</b> , 44, 820-829	7.9	71
118	Development-Length Requirements for Fully Developed Laminar Pipe Flow of Inelastic Non-Newtonian Liquids. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2007</b> , 129, 1281-1287	2.1	71
117	Ascending aortic curvature as an independent risk factor for type A dissection, and ascending aortic aneurysm formation: a mathematical model. <i>European Journal of Cardio-thoracic Surgery</i> , <b>2008</b> , 33, 995-1001	10.1	70
116	Aspect ratio effects in laminar natural convection of Bingham fluids in rectangular enclosures with differentially heated side walls. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2011</b> , 166, 208-230	2.7	64
115	Laminar Rayleigh-Bénard convection of yield stress fluids in a square enclosure. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2012</b> , 171-172, 83-96	2.7	61
114	Geometric scaling of a purely elastic flow instability in serpentine channels. <i>Journal of Fluid Mechanics</i> , <b>2012</b> , 712, 203-218	3.7	61
113	Observations of asymmetrical flow behaviour in transitional pipe flow of yield-stress and other shear-thinning liquids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2005</b> , 127, 143-155	2.7	61
112	On extensibility effects in the cross-slot flow bifurcation. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2009</b> , 156, 58-69	2.7	54
111	Numerical and experimental investigation of heat transfer and fluid flow characteristics in a micro-scale serpentine channel. <i>International Journal of Heat and Mass Transfer</i> , <b>2015</b> , 88, 790-802	4.9	51
110	3D printing with 2D colloids: designing rheology protocols to predict 'printability' of soft-materials. <i>Soft Matter</i> , <b>2019</b> , 15, 1444-1456	3.6	50
109	Serpentine channels: micro-rheometers for fluid relaxation times. <i>Lab on A Chip</i> , <b>2014</b> , 14, 351-8	7.2	50
108	Divergent flow in contractions. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2007</b> , 144, 140-148	2.7	46

107	Turbulent flow of viscoelastic shear-thinning liquids through a rectangular duct: Quantification of turbulence anisotropy. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2009</b> , 160, 2-10	2.7	44
106	The effects of wave-current interaction on the performance of a model horizontal axis tidal turbine. <i>International Journal of Marine Energy</i> , <b>2014</b> , 8, 17-35		41
105	Influences of boundary conditions on laminar natural convection in rectangular enclosures with differentially heated side walls. <i>International Journal of Heat and Fluid Flow</i> , <b>2012</b> , 33, 131-146	2.4	41
104	Nonlinear Effects in Multicomponent Supramolecular Hydrogels. <i>Langmuir</i> , <b>2017</b> , 33, 2387-2395	4	40
103	Experimental investigation of the impact of elastic turbulence on heat transfer in a serpentine channel. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2016</b> , 231, 68-78	2.7	40
102	Bifurcation in a T-channel junction: Effects of aspect ratio and shear-thinning. <i>Chemical Engineering Science</i> , <b>2013</b> , 104, 839-848	4.4	40
101	Opening a Can of Worm(-like Micelle)s: The Effect of Temperature of Solutions of Functionalized Dipeptides. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 10467-10470	16.4	40
100	Laminar, transitional and turbulent annular flow of drag-reducing polymer solutions. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2010</b> , 165, 1357-1372	2.7	40
99	Purely elastic flow asymmetries in flow-focusing devices. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2009</b> , 160, 31-39	2.7	38
98	Turbulent pipe flow of a drag-reducing rigid rod-like polymer solution. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2009</b> , 161, 86-93	2.7	38
97	Tricritical spiral vortex instability in cross-slot flow. <i>Physical Review E</i> , <b>2016</b> , 93, 031101	2.4	35
96	Closure technique after carotid endarterectomy influences local hemodynamics. <i>Journal of Vascular Surgery</i> , <b>2014</b> , 60, 418-27	3.5	34
95	Laminar forced convection heat transfer from a heated square cylinder in a Bingham plastic fluid. <i>International Journal of Heat and Mass Transfer</i> , <b>2013</b> , 56, 625-639	4.9	34
94	Viscoelastic secondary flows in serpentine channels. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2013</b> , 201, 10-16	2.7	34
93	Bifurcation phenomena in viscoelastic flows through a symmetric 1:4 expansion. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2007</b> , 141, 1-17	2.7	34
92	Plane sudden expansion flows of viscoelastic liquids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2007</b> , 146, 79-91	2.7	34
91	Turbulent flow of viscoelastic liquids through an axisymmetric sudden expansion. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2004</b> , 117, 25-46	2.7	34
90	Numerical Predictions of Momentum and Heat Transfer Characteristics from a Heated Sphere in Yield-Stress Fluids. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2013</b> , 52, 6848-6861	3.9	33

89	On creeping flow of a Bingham plastic fluid past a square cylinder. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2012</b> , 171-172, 17-30	2.7	32
88	Aspect ratio and boundary conditions effects on laminar natural convection of power-law fluids in a rectangular enclosure with differentially heated side walls. <i>International Journal of Heat and Mass Transfer</i> , <b>2013</b> , 60, 722-738	4.9	31
87	Turbulent drag reduction by polymer additives in parallel-shear flows. <i>Journal of Fluid Mechanics</i> , <b>2017</b> , 827,	3.7	31
86	The stabilizing effect of shear thinning on the onset of purely elastic instabilities in serpentine microflows. <i>Soft Matter</i> , <b>2016</b> , 12, 6167-75	3.6	30
85	Effect of Shear-Thinning Behavior on Heat Transfer from a Heated Sphere in Yield-Stress Fluids. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2013</b> , 52, 13490-13504	3.9	30
84	Bundling of elastic filaments induced by hydrodynamic interactions. <i>Physical Review Fluids</i> , <b>2017</b> , 2,	2.8	30
83	Enhancing heat transfer at the micro-scale using elastic turbulence. <i>Theoretical and Applied Mechanics Letters</i> , <b>2015</b> , 5, 103-106	1.8	28
82	Turbulent flow through a plane sudden expansion of modest aspect ratio. <i>Physics of Fluids</i> , <b>2002</b> , 14, 3641-3654	4.4	28
81	Lid-driven cavity flow of viscoelastic liquids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2016</b> , 234, 129-138	3.7	28
80	Laminar natural convection of power-law fluids in a square enclosure submitted from below to a uniform heat flux density. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2013</b> , 199, 80-95	2.7	27
79	A new viscoelastic benchmark flow: Stationary bifurcation in a cross-slot. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2014</b> , 214, 57-68	2.7	27
78	Development Length Requirements for Fully Developed Laminar Pipe Flow of Yield Stress Fluids. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2010</b> , 132,	2.1	27
77	Influence of outlet geometry on strongly swirling turbulent flow through a circular tube. <i>Physics of Fluids</i> , <b>2006</b> , 18, 125103	4.4	27
76	Turbulent flow of non-Newtonian liquids over a backward-facing step. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2003</b> , 109, 193-230	2.7	26
75	Laminar Natural Convection of Power-Law Fluids in a Square Enclosure With Differentially Heated Sidewalls Subjected to Constant Wall Heat Flux. <i>Journal of Heat Transfer</i> , <b>2012</b> , 134,	1.8	25
74	Effects of aspect ratio on laminar Rayleigh-Bénard convection of power-law fluids in rectangular enclosures: A numerical investigation. <i>International Journal of Heat and Mass Transfer</i> , <b>2015</b> , 91, 1292-1307	4.9	24
73	Laminar Natural Convection of Bingham Fluids in a Square Enclosure with Vertical Walls Subjected to Constant Heat Flux. <i>Numerical Heat Transfer; Part A: Applications</i> , <b>2011</b> , 60, 381-409	2.3	24
72	Effects of aspect ratio on natural convection of Bingham fluids in rectangular enclosures with differentially heated horizontal walls heated from below. <i>International Journal of Heat and Mass Transfer</i> , <b>2015</b> , 80, 727-736	4.9	23

71	Opening a Can of Worm(-like Micelle)s: The Effect of Temperature of Solutions of Functionalized Dipeptides. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 10603-10606	3.6	23
70	The influence of blade pitch angle on the performance of a model horizontal axis tidal stream turbine operating under wavecurrent interaction. <i>Energy</i> , <b>2016</b> , 102, 166-175	7.9	22
69	Flow produced in a conical container by a rotating endwall. <i>International Journal of Heat and Fluid Flow</i> , <b>2007</b> , 28, 1418-1428	2.4	21
68	Turbulent duct flow with polymers. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 859, 1057-1083	3.7	21
67	Influence of channel aspect ratio on the onset of purely-elastic flow instabilities in three-dimensional planar cross-slots. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2016</b> , 227, 65-79	2.7	20
66	Low-drag events in transitional wall-bounded turbulence. <i>Physical Review Fluids</i> , <b>2017</b> , 2,	2.8	20
65	Inertioelastic Flow Instability at a Stagnation Point. <i>Physical Review X</i> , <b>2017</b> , 7,	9.1	19
64	Asymmetry in transitional pipe flow of drag-reducing polymer solutions. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2009</b> , 161, 19-29	2.7	19
63	The effect of expansion ratio for creeping expansion flows of UCM fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2009</b> , 163, 35-44	2.7	19
62	Emulsification using elastic turbulence. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2012</b> , 177-178, 15-18	2.7	17
61	Controlling vortex breakdown in swirling pipe flows: Experiments and simulations. <i>Physics of Fluids</i> , <b>2014</b> , 26, 053602	4.4	17
60	BOUNDARY CONDITION EFFECTS ON NATURAL CONVECTION OF BINGHAM FLUIDS IN A SQUARE ENCLOSURE WITH DIFFERENTIALLY HEATED HORIZONTAL WALLS. <i>Computational Thermal Sciences</i> , <b>2012</b> , 4, 77-97	1.9	17
59	Secondary flows of viscoelastic fluids in serpentine microchannels. <i>Microfluidics and Nanofluidics</i> , <b>2019</b> , 23, 1	2.8	16
58	Influences of Boundary Conditions on Laminar Natural Convection of Bingham Fluids in Rectangular Enclosures With Differentially Heated Side Walls. <i>Heat Transfer Engineering</i> , <b>2014</b> , 35, 822-849	1.7	16
57	Viscoelastic drops moving on hydrophilic and superhydrophobic surfaces. <i>Journal of Colloid and Interface Science</i> , <b>2018</b> , 513, 53-61	9.3	16
56	Controlling the properties of the micellar and gel phase by varying the counterion in functionalised-dipeptide systems. <i>Chemical Communications</i> , <b>2020</b> , 56, 4094-4097	5.8	15
55	Heat transfer enhancement in a cross-slot micro-geometry. <i>International Journal of Thermal Sciences</i> , <b>2017</b> , 121, 249-265	4.1	15
54	Laminar flow of a viscoelastic shear-thinning liquid through a plane sudden expansion preceded by a gradual contraction. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2005</b> , 461, 3827-3845	2.4	15

53	Development-Length Requirements for Fully Developed Laminar Flow in Concentric Annuli. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2010</b> , 132,	2.1	14
52	Laminar flow of a viscoelastic shear-thinning liquid over a backward-facing step preceded by a gradual contraction. <i>Physics of Fluids</i> , <b>2007</b> , 19, 093101	4.4	14
51	Turbulent flow of a viscoelastic shear-thinning liquid through a plane sudden expansion of modest aspect ratio. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2003</b> , 112, 1-26	2.7	14
50	Experiments on low-Reynolds-number turbulent flow through a square duct. <i>Journal of Fluid Mechanics</i> , <b>2016</b> , 798, 398-410	3.7	14
49	Control of a purely elastic symmetry-breaking flow instability in cross-slot geometries. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 881, 1123-1157	3.7	13
48	Boundary Condition Effects on Laminar Natural Convection of Power-Law Fluids in a Square Enclosure Heated from below with Differentially Heated Horizontal Walls. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2014</b> , 53, 456-473	3.9	13
47	Type IIIb Endoleak and Relining: A Mathematical Model of Distraction Forces. <i>Journal of Endovascular Therapy</i> , <b>2016</b> , 23, 297-301	2.5	12
46	Elastic instabilities in parallel shear flows of a viscoelastic shear-thinning liquid. <i>Physical Review Fluids</i> , <b>2016</b> , 1,	2.8	12
45	Evaluating the resilience of superhydrophobic materials using the slip-length concept. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 4458-4465	13	11
44	Partially filled pipes: experiments in laminar and turbulent flow. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 848, 467-507	3.7	11
43	Development of emulsification resistant heavier-than-water tamponades using high molecular weight silicone oil polymers. <i>Journal of Biomaterials Applications</i> , <b>2015</b> , 30, 212-20	2.9	10
42	Elastic modifications of an inertial instability in a 3D cross-slot. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2018</b> , 262, 12-24	2.7	10
41	Experimental evidence of symmetry-breaking supercritical transition in pipe flow of shear-thinning fluids. <i>Physical Review Fluids</i> , <b>2017</b> , 2,	2.8	10
40	Three-dimensional viscoelastic instabilities in microchannels. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 870, 1-4	3.7	9
39	The concept of aortic replacement based on computational fluid dynamic analysis: patient-directed aortic replacement. <i>Interactive Cardiovascular and Thoracic Surgery</i> , <b>2013</b> , 16, 583-8	1.8	9
38	Viscoelastic flows in mixing-separating cells. <i>Journal of Engineering Mathematics</i> , <b>2011</b> , 71, 3-13	1.2	9
37	Velocity overshoots in gradual contraction flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2009</b> , 160, 47-54	2.7	9
36	Turbulent flow of non-Newtonian liquids over a backward-facing step: Part I. A thixotropic and shear-thinning liquid. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2003</b> , 109, 177-191	2.7	9

35	An experimental investigation into spatiotemporal intermittencies in turbulent channel flow close to transition. <i>Experiments in Fluids</i> , <b>2019</b> , 60, 1	2.5	8
34	A symmetry-breaking inertial bifurcation in a cross-slot flow. <i>Computers and Fluids</i> , <b>2014</b> , 93, 91-99	2.8	8
33	Viscoelastic fluid flow simulations in the e-VROCTM geometry. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2020</b> , 278, 104222	2.7	8
32	Sliding viscoelastic drops on slippery surfaces. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 241602	3.4	8
31	Laminar Natural Convection of Bingham Fluids in Inclined Differentially Heated Square Enclosures Subjected to Uniform Wall Temperatures. <i>Journal of Heat Transfer</i> , <b>2015</b> , 137,	1.8	7
30	GO CaBER: Capillary breakup and steady-shear experiments on aqueous graphene oxide (GO) suspensions. <i>Journal of Rheology</i> , <b>2020</b> , 64, 81-93	4.1	7
29	Secondary flows due to finite aspect ratio in inertialess viscoelastic Taylor-Couette flow. <i>Journal of Fluid Mechanics</i> , <b>2018</b> , 857, 823-850	3.7	7
28	Numerical investigation of steady-state laminar natural convection of power-law fluids in square cross-sectioned cylindrical annular cavity with differentially-heated vertical walls. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , <b>2016</b> , 26, 85-107	4.5	6
27	Inertial instabilities in a microfluidic mixing-separating device. <i>Physics of Fluids</i> , <b>2019</b> , 31, 074101	4.4	6
26	Computational fluid dynamic analysis of the effect of morphologic features on distraction forces in fenestrated stent grafts. <i>Journal of Vascular Surgery</i> , <b>2014</b> , 60, 1648-56.e1	3.5	6
25	Freezing as a Storage Process for Aqueous Polymer Solutions. <i>Applied Rheology</i> , <b>2005</b> , 15, 90-97	1.2	6
24	Energetic motions in turbulent partially filled pipe flow. <i>Physics of Fluids</i> , <b>2021</b> , 33, 025101	4.4	6
23	Investigating channel flow using wall shear stress signals at transitional Reynolds numbers. <i>International Journal of Heat and Fluid Flow</i> , <b>2020</b> , 82, 108525	2.4	5
22	Symmetry-breaking Bifurcations in T-channel Flows: Effects of Fluid Viscoelasticity. <i>Procedia Engineering</i> , <b>2014</b> , 79, 28-34		5
21	Asymmetry in the turbulent flow of a viscoelastic liquid through an axisymmetric sudden expansion. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2005</b> , 125, 61-70	2.7	5
20	Periodic fluctuations of streamwise vortices in inertia-dominated intersecting flows. <i>Physics of Fluids</i> , <b>2021</b> , 33, 014106	4.4	5
19	Low- and High-Drag Intermittencies in Turbulent Channel Flows. <i>Entropy</i> , <b>2020</b> , 22,	2.8	4
18	Minimizing recalibration using a non-linear regression technique for thermal anemometry. <i>Experiments in Fluids</i> , <b>2019</b> , 60, 1	2.5	4



17	NUMERICAL INVESTIGATION OF BOUNDARY CONDITION EFFECTS ON LAMINAR NATURAL CONVECTION OF POWER LAW FLUIDS IN SQUARE CROSS-SECTIONAL CYLINDRICAL ANNULAR SPACE WITH DIFFERENTIALLY HEATED VERTICAL WALLS. <i>Computational Thermal Sciences</i> , <b>2015</b> , 7, 261-282	1.9	4
16	Drag Reduction of Biopolymer Flows. <i>Journal of Applied Sciences</i> , <b>2011</b> , 11, 1544-1551	0.3	4
15	Heat Transfer of Power-Law Fluids in Plane Couette-Poiseuille Flows with Viscous Dissipation. <i>Heat Transfer Engineering</i> , <b>2020</b> , 41, 1189-1207	1.7	4
14	Vortex breakdown in swirling pipe flow of fluids with shear-dependent viscosity. <i>Physics of Fluids</i> , <b>2018</b> , 30, 114107	4.4	4
13	Heat Transfer of Bingham Fluids in an Annular Duct with Viscous Dissipation. <i>Heat Transfer Engineering</i> , <b>2018</b> , 39, 1749-1765	1.7	3
12	Mathematical modeling in cardiac surgery: helping clinical trials answer the question. <i>Seminars in Cardiothoracic and Vascular Anesthesia</i> , <b>2009</b> , 13, 81-6	1.4	3
11	A viscoelastic two-phase solver using a phase-field approach. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2020</b> , 284, 104364	2.7	3
10	Highlighting the need for high-speed imaging in capillary breakup extensional rheometry. <i>Measurement Science and Technology</i> , <b>2021</b> , 32, 095301	2	2
9	On the similarities between the simplified Phan-Thien-Tanner model and the finitely extensible nonlinear elastic dumbbell (Peterlin closure) model in simple and complex flows. <i>Physics of Fluids</i> , <b>2022</b> , 34, 033110	4.4	2
8	Entry Length Requirements for Two- and Three-Dimensional Laminar Couette-Poiseuille Flows. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2019</b> , 141,	2.1	1
7	Heat Transfer in Laminar Flow of a Herschel-Bulkley Fluid between Parallel Plates. <i>Heat Transfer Engineering</i> , 1-22	1.7	1
6	Stabilization of purely elastic instabilities in cross-slot geometries. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 922,	3.7	1
5	Viscoelastic fluid flow in microporous media. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2021</b> , 296, 104638	3.7	1
4	Viscoelastic simulations using the closed-form Adaptive Length Scale (ALS-C) model. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2022</b> , 104776	2.7	1
3	Comment on Bejan's flow visualization of buoyancy-driven flow of a hydromagnetic Casson fluid from an isothermal wavy surface [Phys. Fluids 33(9), 093113 (2021)]. <i>Physics of Fluids</i> , <b>2021</b> , 33, 129101	4.4	0
2	Turbulent flow of viscoelastic shear-thinning liquids through a rectangular duct <b>2007</b> , 328-330		
1	On the similarities of the sPTT and FENE-P models for polymeric fluids <b>2022</b> , 100015		