

# Yannis Dimakopoulos

## List of Publications by Year in descending order

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71  
papers

1,830  
citations

279487

23  
h-index

288905

40  
g-index

72  
all docs

72  
docs citations

72  
times ranked

896  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics and apparent permeability of the glycocalyx layer: Start-up and pulsating shear experiments <i>in silico</i> . <i>Physical Review Fluids</i> , 2022, 7, .	1.0	5
2	Stability analysis of a Newtonian film flow over hydrophobic microtextured substrates. <i>Physical Review Fluids</i> , 2022, 7, .	1.0	4
3	Advanced Constitutive Modeling of the Thixotropic Elasto-Visco-Plastic Behavior of Blood: Steady-State Blood Flow in Microtubes. <i>Materials</i> , 2021, 14, 367.	1.3	13
4	Stability analysis of viscoelastic film flows over an inclined substrate with rectangular trenches. <i>Journal of Fluid Mechanics</i> , 2021, 915, .	1.4	4
5	Origin of the Sharkskin Instability: Nonlinear Dynamics. <i>Physical Review Letters</i> , 2021, 127, 088001.	2.9	15
6	Investigation of the extensional properties of elasto-visco-plastic materials in cross-slot geometries. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2021, 296, 104627.	1.0	11
7	Adhesion, cavitation, and fibrillation during the debonding process of pressure sensitive adhesives. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	10
8	The concept of elasto-visco-plasticity and its application to a bubble rising in yield stress fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2021, 297, 104670.	1.0	16
9	Quantifying the non-Newtonian effects of pulsatile hemodynamics in tubes. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2021, 298, 104673.	1.0	15
10	Electro-osmotic flow of electrolyte solutions of PEO in microfluidic channels. <i>Journal of Colloid and Interface Science</i> , 2020, 563, 381-393.	5.0	17
11	A finite volume method for the simulation of elastoviscoplastic flows and its application to the lid-driven cavity case. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2020, 275, 104216.	1.0	17
12	PEGAFEM-V: A new petrov-galerkin finite element method for free surface viscoelastic flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2020, 284, 104365.	1.0	22
13	Dynamics of viscoplastic filament stretching. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2020, 284, 104371.	1.0	16
14	Advanced Constitutive Modeling of the Thixotropic Elasto-Visco-Plastic Behavior of Blood: Description of the Model and Rheological Predictions. <i>Materials</i> , 2020, 13, 4184.	1.3	31
15	Steady flow of a viscoelastic film over an inclined plane featuring periodic slits. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2020, 278, 104243.	1.0	8
16	Transition between solid and liquid state of yield-stress fluids under purely extensional deformations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 12611-12617.	3.3	39
17	The rising velocity of a slowly pulsating bubble in a shear-thinning fluid. <i>Physics of Fluids</i> , 2019, 31, 083103.	1.6	9
18	Modeling the rheology of thixotropic elasto-visco-plastic materials. <i>Journal of Rheology</i> , 2019, 63, 609-639.	1.3	60

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19	A new finite element formulation for viscoelastic flows: Circumventing simultaneously the LBB condition and the high-Weissenberg number problem. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019, 267, 78-97.	1.0	37
20	Acknowledgement to Reviewers of <i>Fluids</i> in 2018. <i>Fluids</i> , 2019, 4, 9.	0.8	0
21	Dynamics and motion of a gas bubble in a viscoplastic medium under acoustic excitation. <i>Journal of Fluid Mechanics</i> , 2019, 865, 381-413.	1.4	11
22	Oscillations of small bubbles and medium yielding in elastoviscoplastic fluids. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	13
23	Viscoelastic film flows over an inclined substrate with sinusoidal topography. I. Steady state. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	10
24	Viscoelastic film flows over an inclined substrate with sinusoidal topography. II. Linear stability analysis. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	7
25	Theoretical study of the flow in a fluid damper containing high viscosity silicone oil: Effects of shear-thinning and viscoelasticity. <i>Physics of Fluids</i> , 2018, 30, 030708.	1.6	32
26	The PAL (Penalized Augmented Lagrangian) method for computing viscoplastic flows: A new fast converging scheme. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2018, 256, 23-41.	1.0	37
27	How viscoelastic is human blood plasma?. <i>Soft Matter</i> , 2018, 14, 4238-4251.	1.2	83
28	Evaluation of tube models for linear entangled polymers in simple and complex flows. <i>Journal of Rheology</i> , 2018, 62, 25-47.	1.3	29
29	Commentary on Volume I-Issue II of the <i>Journal of Oil, Gas and Petrochemical Sciences</i> . <i>Journal of Oil Gas and Petrochemical Sciences</i> , 2018, 1, 67-67.	0.6	0
30	Transient flow of gravity-driven viscous films over 3D patterned substrates: conditions leading to Wenzel, Cassie and intermediate states. <i>Microfluidics and Nanofluidics</i> , 2017, 21, 1.	1.0	13
31	Discretization of three-dimensional free surface flows and moving boundary problems via elliptic grid methods based on variational principles. <i>Journal of Computational Physics</i> , 2017, 344, 127-150.	1.9	18
32	On the degree of wetting of a slit by a liquid film flowing along an inclined plane. <i>Journal of Fluid Mechanics</i> , 2017, 820, 5-41.	1.4	10
33	Experimental investigation and mathematical modeling of triode PEM fuel cells. <i>Electrochimica Acta</i> , 2017, 248, 518-533.	2.6	6
34	A critical analysis of some popular methods for the discretisation of the gradient operator in finite volume methods. <i>Physics of Fluids</i> , 2017, 29, .	1.6	55
35	Steady film flow over a substrate with rectangular trenches forming air inclusions. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	21
36	Steady viscoelastic film flow over 2D Topography: II. The effect of capillarity, inertia and substrate geometry. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2016, 234, 201-214.	1.0	15

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37	Yielding the yield stress analysis: A thorough comparison of recently proposed elasto-visco-plastic (EVP) fluid models. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2016, 238, 170-188.	1.0	16
38	On the velocity discontinuity at a critical volume of a bubble rising in a viscoelastic fluid. <i>Journal of Fluid Mechanics</i> , 2016, 789, 310-346.	1.4	75
39	Yielding the yield-stress analysis: a study focused on the effects of elasticity on the settling of a single spherical particle in simple yield-stress fluids. <i>Soft Matter</i> , 2016, 12, 5378-5401.	1.2	91
40	Yielding the yield stress analysis: A thorough comparison of recently proposed elasto-visco-plastic (EVP) fluid models. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2016, 236, 104-122.	1.0	49
41	Viscoplastic flow in an extrusion damper. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2016, 232, 102-124.	1.0	17
42	Transient flow of gravity-driven viscous films over substrates with rectangular topographical features. <i>Microfluidics and Nanofluidics</i> , 2016, 20, 1.	1.0	13
43	Stress-gradient induced migration of polymers in thin films flowing over smoothly corrugated surfaces. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2016, 228, 79-95.	1.0	7
44	Hemodynamics in stenotic vessels of small diameter under steady state conditions: Effect of viscoelasticity and migration of ÅredÅblood cells. <i>Biorheology</i> , 2015, 52, 183-210.	1.2	31
45	Flow of two immiscible fluids in a periodically constricted tube: Transitions to stratified, segmented, churn, spray, or segregated flow. <i>Physics of Fluids</i> , 2015, 27, .	1.6	14
46	On the origin of extrusion instabilities: Linear stability analysis of the viscoelastic die swell. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2015, 224, 61-77.	1.0	32
47	Bubble Deformation and Growth Inside Viscoelastic Filaments Undergoing Very Large Extensions. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 7548-7569.	1.8	22
48	Stress-gradient induced migration of polymers in corrugated channels. <i>Journal of Rheology</i> , 2014, 58, 911-947.	1.3	26
49	On the flow characteristics of the conical Minoan pipes used in water supply systems, via computational fluid dynamics simulations. <i>Journal of Archaeological Science</i> , 2013, 40, 2057-2068.	1.2	5
50	Steady bubble rise in Herschel-ÅBulkley fluids and comparison of predictions via the Augmented Lagrangian Method with those via the Papanastasiou model. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2013, 200, 34-51.	1.0	102
51	Direct numerical simulation of a 2D-stented aortic heart valve at physiological flow rates. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2012, 15, 1157-1179.	0.9	10
52	The Free (Open) Boundary Condition at inflow boundaries. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2012, 187-188, 16-31.	1.0	10
53	Viscous effects on the oscillations of two equal and deformable bubbles under a step change in pressure. <i>Journal of Fluid Mechanics</i> , 2011, 673, 513-547.	1.4	8
54	An efficient parallel and fully implicit algorithm for the simulation of transient free-surface flows of multimode viscoelastic liquids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2010, 165, 409-424.	1.0	11

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55	Steady viscoelastic film flow over 2D topography: I. The effect of viscoelastic properties under creeping flow. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2010, 165, 576-591.	1.0	22
56	Fully developed flow of a viscoelastic film down a vertical cylindrical or planar wall. <i>Rheologica Acta</i> , 2009, 48, 1031-1048.	1.1	8
57	On the elliptic mesh generation in domains containing multiple inclusions and undergoing large deformations. <i>Journal of Computational Physics</i> , 2009, 228, 1980-2011.	1.9	45
58	On the transient coating of a straight tube with a viscoelastic material. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2009, 159, 95-114.	1.0	20
59	Injection of a viscoplastic material inside a tube or between two parallel disks: Conditions for wall detachment of the advancing front. <i>Journal of Rheology</i> , 2009, 53, 1155-1191.	1.3	20
60	Steady bubble rise and deformation in Newtonian and viscoplastic fluids and conditions for bubble entrapment. <i>Journal of Fluid Mechanics</i> , 2008, 601, 123-164.	1.4	135
61	Transient Coating of the Inner Wall of a Straight Tube with a Viscoelastic Material. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	0
62	Transient displacement of Newtonian and viscoplastic liquids by air in complex tubes. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2007, 142, 162-182.	1.0	37
63	A direct comparison between volume and surface tracking methods with a boundary-fitted coordinate transformation and third-order upwinding. <i>Journal of Computational Physics</i> , 2007, 227, 1428-1469.	1.9	18
64	Numerical simulation of multiple bubbles growing in a Newtonian liquid filament undergoing stretching. <i>Physics of Fluids</i> , 2006, 18, 042106.	1.6	16
65	Gas-assisted injection molding with fluids partially occupying straight or complex tubes. <i>Polymer Engineering and Science</i> , 2006, 46, 47-68.	1.5	16
66	Transient displacement of Newtonian liquids by gas in periodically constricted tubes. <i>AIChE Journal</i> , 2006, 52, 2707-2726.	1.8	4
67	On the gas-penetration in straight tubes completely filled with a viscoelastic fluid. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2004, 117, 117-139.	1.0	42
68	A quasi-elliptic transformation for moving boundary problems with large anisotropic deformations. <i>Journal of Computational Physics</i> , 2003, 192, 494-522.	1.9	89
69	Transient displacement of a viscoplastic material by air in straight and suddenly constricted tubes. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2003, 112, 43-75.	1.0	73
70	Transient displacement of a Newtonian fluid by air in straight or suddenly constricted tubes. <i>Physics of Fluids</i> , 2003, 15, 1973-1991.	1.6	28
71	Comparison of spectral and finite element methods applied to the study of the core-annular flow in an undulating tube. <i>International Journal for Numerical Methods in Fluids</i> , 2002, 39, 41-73.	0.9	8