Yannis Dimakopoulos

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Dynamics and apparent permeability of the glycocalyx layer: Start-up and pulsating shear experiments <i>in silico</i> . Physical Review Fluids, 2022, 7, .	2.5	5
2	Stability analysis of a Newtonian film flow over hydrophobic microtextured substrates. Physical Review Fluids, 2022, 7, .	2.5	4
3	Advanced Constitutive Modeling of the Thixotropic Elasto-Visco-Plastic Behavior of Blood: Steady-State Blood Flow in Microtubes. Materials, 2021, 14, 367.	2.9	13
4	Stability analysis of viscoelastic film flows over an inclined substrate with rectangular trenches. Journal of Fluid Mechanics, 2021, 915, .	3.4	4
5	Origin of the Sharkskin Instability: Nonlinear Dynamics. Physical Review Letters, 2021, 127, 088001.	7.8	15
6	Investigation of the extensional properties of elasto-visco-plastic materials in cross-slot geometries. Journal of Non-Newtonian Fluid Mechanics, 2021, 296, 104627.	2.4	11
7	Adhesion, cavitation, and fibrillation during the debonding process of pressure sensitive adhesives. Physical Review Fluids, 2021, 6, .	2.5	10
8	The concept of elasto-visco-plasticity and its application to a bubble rising in yield stress fluids. Journal of Non-Newtonian Fluid Mechanics, 2021, 297, 104670.	2.4	16
9	Quantifying the non-Newtonian effects of pulsatile hemodynamics in tubes. Journal of Non-Newtonian Fluid Mechanics, 2021, 298, 104673.	2.4	15
10	Electro-osmotic flow of electrolyte solutions of PEO in microfluidic channels. Journal of Colloid and Interface Science, 2020, 563, 381-393.	9.4	17
11	A finite volume method for the simulation of elastoviscoplastic flows and its application to the lid-driven cavity case. Journal of Non-Newtonian Fluid Mechanics, 2020, 275, 104216.	2.4	17
12	PEGAFEM-V: A new petrov-galerkin finite element method for free surface viscoelastic flows. Journal of Non-Newtonian Fluid Mechanics, 2020, 284, 104365.	2.4	22
13	Dynamics of viscoplastic filament stretching. Journal of Non-Newtonian Fluid Mechanics, 2020, 284, 104371.	2.4	16
14	Advanced Constitutive Modeling of the Thixotropic Elasto-Visco-Plastic Behavior of Blood: Description of the Model and Rheological Predictions. Materials, 2020, 13, 4184.	2.9	31
15	Steady flow of a viscoelastic film over an inclined plane featuring periodic slits. Journal of Non-Newtonian Fluid Mechanics, 2020, 278, 104243.	2.4	8
16	Transition between solid and liquid state of yield-stress fluids under purely extensional deformations. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12611-12617.	7.1	39
17	The rising velocity of a slowly pulsating bubble in a shear-thinning fluid. Physics of Fluids, 2019, 31, 083103.	4.0	9
18	Modeling the rheology of thixotropic elasto-visco-plastic materials. Journal of Rheology, 2019, 63, 609-639.	2.6	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. Journal of Non-Newtonian Fluid Mechanics, 2019, 267, 78-97.	2.4	37
20	Acknowledgement to Reviewers of Fluids in 2018. Fluids, 2019, 4, 9.	1.7	0
21	Dynamics and motion of a gas bubble in aÂviscoplastic medium under acoustic excitation. Journal of Fluid Mechanics, 2019, 865, 381-413.	3.4	11
22	Oscillations of small bubbles and medium yielding in elastoviscoplastic fluids. Physical Review Fluids, 2019, 4, .	2.5	13
23	Viscoelastic film flows over an inclined substrate with sinusoidal topography. I. Steady state. Physical Review Fluids, 2019, 4, .	2.5	10
24	Viscoelastic film flows over an inclined substrate with sinusoidal topography. II. Linear stability analysis. Physical Review Fluids, 2019, 4, .	2.5	7
25	Theoretical study of the flow in a fluid damper containing high viscosity silicone oil: Effects of shear-thinning and viscoelasticity. Physics of Fluids, 2018, 30, 030708.	4.0	32
26	The PAL (Penalized Augmented Lagrangian) method for computing viscoplastic flows: A new fast converging scheme. Journal of Non-Newtonian Fluid Mechanics, 2018, 256, 23-41.	2.4	37
27	How viscoelastic is human blood plasma?. Soft Matter, 2018, 14, 4238-4251.	2.7	83
28	Evaluation of tube models for linear entangled polymers in simple and complex flows. Journal of Rheology, 2018, 62, 25-47.	2.6	29
29	Commentary on Volume I-Issue II of the Journal of Oil, Gas and Petrochemical Sciences. Journal of Oil Gas and Petrochemical Sciences, 2018, 1, 67-67.	0.6	Ο
30	Transient flow of gravity-driven viscous films over 3D patterned substrates: conditions leading to Wenzel, Cassie and intermediate states. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	13
31	Discretization of three-dimensional free surface flows and moving boundary problems via elliptic grid methods based on variational principles. Journal of Computational Physics, 2017, 344, 127-150.	3.8	18
32	On the degree of wetting of a slit by a liquid film flowing along an inclined plane. Journal of Fluid Mechanics, 2017, 820, 5-41.	3.4	10
33	Experimental investigation and mathematical modeling of triode PEM fuel cells. Electrochimica Acta, 2017, 248, 518-533.	5.2	6
34	A critical analysis of some popular methods for the discretisation of the gradient operator in finite volume methods. Physics of Fluids, 2017, 29, .	4.0	55
35	Steady film flow over a substrate with rectangular trenches forming air inclusions. Physical Review Fluids, 2017, 2, .	2.5	21
36	Steady viscoelastic film flow over 2D Topography: II. The effect of capillarity, inertia and substrate geometry. Journal of Non-Newtonian Fluid Mechanics, 2016, 234, 201-214.	2.4	15

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37	Yielding the yield stress analysis: A thorough comparison of recently proposed elasto-visco-plastic (EVP) fluid models. Journal of Non-Newtonian Fluid Mechanics, 2016, 238, 170-188.	2.4	16
38	On the velocity discontinuity at a critical volume of a bubble rising in a viscoelastic fluid. Journal of Fluid Mechanics, 2016, 789, 310-346.	3.4	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. Soft Matter, 2016, 12, 5378-5401.	2.7	91
40	Yielding the yield stress analysis: A thorough comparison of recently proposed elasto-visco-plastic (EVP) fluid models. Journal of Non-Newtonian Fluid Mechanics, 2016, 236, 104-122.	2.4	49
41	Viscoplastic flow in an extrusion damper. Journal of Non-Newtonian Fluid Mechanics, 2016, 232, 102-124.	2.4	17
42	Transient flow of gravity-driven viscous films over substrates with rectangular topographical features. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	13
43	Stress-gradient induced migration of polymers in thin films flowing over smoothly corrugated surfaces. Journal of Non-Newtonian Fluid Mechanics, 2016, 228, 79-95.	2.4	7
44	Hemodynamics in stenotic vessels of small diameter under steady state conditions: Effect of viscoelasticity and migration ofÂredÂblood cells. Biorheology, 2015, 52, 183-210.	0.4	31
45	Flow of two immiscible fluids in a periodically constricted tube: Transitions to stratified, segmented, churn, spray, or segregated flow. Physics of Fluids, 2015, 27, .	4.0	14
46	On the origin of extrusion instabilities: Linear stability analysis of the viscoelastic die swell. Journal of Non-Newtonian Fluid Mechanics, 2015, 224, 61-77.	2.4	32
47	Bubble Deformation and Growth Inside Viscoelastic Filaments Undergoing Very Large Extensions. Industrial & Engineering Chemistry Research, 2014, 53, 7548-7569.	3.7	22
48	Stress-gradient induced migration of polymers in corrugated channels. Journal of Rheology, 2014, 58, 911-947.	2.6	26
49	On the flow characteristics of the conical Minoan pipes used in water supply systems, via computational fluid dynamics simulations. Journal of Archaeological Science, 2013, 40, 2057-2068.	2.4	5
50	Steady bubble rise in Herschel–Bulkley fluids and comparison of predictions via the Augmented Lagrangian Method with those via the Papanastasiou model. Journal of Non-Newtonian Fluid Mechanics, 2013, 200, 34-51.	2.4	102
51	Direct numerical simulation of a 2D-stented aortic heart valve at physiological flow rates. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 1157-1179.	1.6	10
52	The Free (Open) Boundary Condition at inflow boundaries. Journal of Non-Newtonian Fluid Mechanics, 2012, 187-188, 16-31.	2.4	10
53	Viscous effects on the oscillations of two equal and deformable bubbles under a step change in pressure. Journal of Fluid Mechanics, 2011, 673, 513-547.	3.4	8
54	An efficient parallel and fully implicit algorithm for the simulation of transient free-surface flows of multimode viscoelastic liquids. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 409-424.	2.4	11

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55	Steady viscoelastic film flow over 2D topography: I. The effect of viscoelastic properties under creeping flow. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 576-591.	2.4	22
56	Fully developed flow of a viscoelastic film down a vertical cylindrical or planar wall. Rheologica Acta, 2009, 48, 1031-1048.	2.4	8
57	On the elliptic mesh generation in domains containing multiple inclusions and undergoing large deformations. Journal of Computational Physics, 2009, 228, 1980-2011.	3.8	45
58	On the transient coating of a straight tube with a viscoelastic material. Journal of Non-Newtonian Fluid Mechanics, 2009, 159, 95-114.	2.4	20
59	Injection of a viscoplastic material inside a tube or between two parallel disks: Conditions for wall detachment of the advancing front. Journal of Rheology, 2009, 53, 1155-1191.	2.6	20
60	Steady bubble rise and deformation in Newtonian and viscoplastic fluids and conditions for bubble entrapment. Journal of Fluid Mechanics, 2008, 601, 123-164.	3.4	135
61	Transient Coating of the Inner Wall of a Straight Tube with a Viscoelastic Material. AIP Conference Proceedings, 2008, , .	0.4	0
62	Transient displacement of Newtonian and viscoplastic liquids by air in complex tubes. Journal of Non-Newtonian Fluid Mechanics, 2007, 142, 162-182.	2.4	37
63	A direct comparison between volume and surface tracking methods with a boundary-fitted coordinate transformation and third-order upwinding. Journal of Computational Physics, 2007, 227, 1428-1469.	3.8	18
64	Numerical simulation of multiple bubbles growing in a Newtonian liquid filament undergoing stretching. Physics of Fluids, 2006, 18, 042106.	4.0	16
65	Gas-assisted injection molding with fluids partially occupying straight or complex tubes. Polymer Engineering and Science, 2006, 46, 47-68.	3.1	16
66	Transient displacement of Newtonian liquids by gas in periodically constricted tubes. AICHE Journal, 2006, 52, 2707-2726.	3.6	4
67	On the gas-penetration in straight tubes completely filled with a viscoelastic fluid. Journal of Non-Newtonian Fluid Mechanics, 2004, 117, 117-139.	2.4	42
68	A quasi-elliptic transformation for moving boundary problems with large anisotropic deformations. Journal of Computational Physics, 2003, 192, 494-522.	3.8	89
69	Transient displacement of a viscoplastic material by air in straight and suddenly constricted tubes. Journal of Non-Newtonian Fluid Mechanics, 2003, 112, 43-75.	2.4	73
70	Transient displacement of a Newtonian fluid by air in straight or suddenly constricted tubes. Physics of Fluids, 2003, 15, 1973-1991.	4.0	28
71	Comparison of spectral and finite element methods applied to the study of the core-annular flow in an undulating tube. International Journal for Numerical Methods in Fluids, 2002, 39, 41-73.	1.6	8