Hamid Kellay

List of Publications by Year
in descending order

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144	4,362	87888	128289
papers	citations	38 h-index	60 g-index

144	144	144	3391
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Laponite:Â What Is the Difference between a Gel and a Glass?. Langmuir, 1999, 15, 7534-7536.	3.5	244
2	Aging of a colloidal â€œWignerâ€•glass. Europhysics Letters, 1999, 45, 52-57.	2.0	215
3	Two-dimensional turbulence: a review of some recent experiments. Reports on Progress in Physics, 2002, 65, 845-894.	20.1	187
4	Delayed Fracture of an Inhomogeneous Soft Solid. Science, 1998, 280, 265-267.	12.6	162
5	Inhibition of the Finite-Time Singularity during Droplet Fission of a Polymeric Fluid. Physical Review Letters, 2001, 86, 3558-3561.	7.8	145
6	Experiments with Turbulent Soap Films. Physical Review Letters, 1995, 74, 3975-3978.	7.8	141
7	Prewetting in a binary liquid mixture. Physical Review Letters, 1993, 71, 2607-2610.	7.8	113
8	Properties of surfactant monolayers in relation to microemulsion phase behaviour. Advances in Colloid and Interface Science, 1994, 49, 85-112.	14.7	96
9	Boundaries Control Collective Dynamics of Inertial Self-Propelled Robots. Physical Review Letters, 2018, 120, 188002.	7.8	96
10	Measurement of the slip length of water flow on graphite surface. Applied Physics Letters, 2008, 92, 053101.	3.3	90
11	Viscous Finger Widening with Surfactants and Polymers. Physical Review Letters, 1995, 75, 2132-2135.	7.8	84
12	Experimental observation of hysteresis in a wetting transition. Physical Review Letters, 1992, 69, 1975-1978.	7.8	83
13	The Dynamic Surface Tension of Water. Journal of Physical Chemistry Letters, 2017, 8, 1599-1603.	4.6	80
14	Bistability in non-Newtonian flow: Rheology of lyotropic liquid crystals. Physical Review E, 1998, 58, 2115-2118.	2.1	74
15	Effects of Alkane Chain Length on the Bending Elasticity ConstantKof AOT Monolayers at the Planar Oil-Water Interface. Europhysics Letters, 1991, 16, 53-58.	2.0	72
16	Noncoalescing Drops. Physical Review Letters, 2001, 87, 206104.	7.8	67
17	Effect of Surface Tension Variations on the Pinch-Off Behavior of Small Fluid Drops in the Presence of Surfactants. Physical Review Letters, 2009, 103, 264501.	7.8	59
18	Dynamic Sand Dunes. Physical Review Letters, 2001, 86, 4286-4289.	7.8	58

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19	Viscous fingering in complex fluids. Physica A: Statistical Mechanics and Its Applications, 1995, 220, 60-73.	2.6	56
20	Coupling between Flow and Structure for a Lamellar Surfactant Phase. Physical Review Letters, 2000, 84, 1335-1338.	7.8	56
21	Fluctuation and Dissipation in Liquid-Crystal Electroconvection. Physical Review Letters, 2001, 87, 245502.	7.8	54
22	Thermal Convection and Emergence of Isolated Vortices in Soap Bubbles. Physical Review Letters, 2008, 100, 144501.	7.8	52
23	Velocity Profiles of Water Flowing Past Solid Glass Surfaces Using Fluorescent Nanoparticles and Molecules as Velocity Probes. Physical Review Letters, 2008, 100, 214502.	7.8	48
24	Large velocity fluctuations in small-Reynolds-number pipe flow of polymer solutions. Physical Review E, 2011, 84, 045301.	2.1	47
25	Dynamics of Impact Cratering in Shallow Sand Layers. Physical Review Letters, 2006, 96, 158001.	7.8	46
26	Flow Enhancement due to Elastic Turbulence in Channel Flows of Shear Thinning Fluids. Physical Review Letters, 2015, 114, 028302.	7.8	46
27	Wetting properties ofn-alkanes on AOT monolayers at the brine-air interface. Physical Review Letters, 1992, 69, 1220-1223.	7.8	45
28	Experiments and direct numerical simulations of two-dimensional turbulence. Physical Review E, 2005, 71, 046305.	2.1	45
29	Speed of sound from shock fronts in granular flows. Physics of Fluids, 2006, 18, 031707.	4.0	45
30	The Microcantilever: A Versatile Tool for Measuring the Rheological Properties of Complex Fluids. Journal of Sensors, 2012, 2012, 1-9.	1.1	44
31	Passive appendages generate drift through symmetry breaking. Nature Communications, 2014, 5, 5310.	12.8	44
32	Vorticity Measurements in Turbulent Soap Films. Physical Review Letters, 1998, 80, 277-280.	7.8	43
33	The granular jump. Journal of Fluid Mechanics, 2007, 572, 413-431.	3.4	43
34	Heterogeneity and the Role of Normal Stresses during the Extensional Thinning of Non-Brownian Shear-Thickening Fluids. Physical Review Letters, 2011, 107, 134503.	7.8	43
35	Hydrodynamic Convection in a Two-Dimensional Couette Cell. Physical Review Letters, 1995, 75, 236-239.	7.8	42
36	Velocity fluctuations in a turbulent soap film: The third moment in two dimensions. Physics of Fluids, 1999, 11, 1196-1200.	4.0	42

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37	Break-up dynamics of fluctuating liquid threads. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18327-18331.	7.1	42
38	Viscoelastic Drag Forces and Crossover from No-Slip to Slip Boundary Conditions for Flow near Air-Water Interfaces. Physical Review Letters, 2017, 118, 084501.	7.8	42
39	Viscous Effects on Inertial Drop Formation. Physical Review Letters, 2018, 121, 254501.	7.8	41
40	Dynamic interfacial tension effects in the rupture of liquid necks. Journal of Fluid Mechanics, 2012, 692, 499-510.	3.4	40
41	Drag Enhancement with Polymers. Physical Review Letters, 2008, 100, 018302.	7.8	39
42	Macroscopic effects of the spectral structure in turbulent flows. Nature Physics, 2010, 6, 438-441.	16.7	37
43	Metastable States and Nucleation near First-Order Wetting Transitions. Physical Review Letters, 1994, 73, 3560-3563.	7.8	35
44	Polymers in 2D Turbulence: Suppression of Large Scale Fluctuations. Physical Review Letters, 2002, 89, 104502.	7.8	33
45	Nonuniversality in the Pinch-Off of Yield Stress Fluids: Role of Nonlocal Rheology. Physical Review Letters, 2014, 113, 218302.	7.8	33
46	From collections of independent, mindless robots to flexible, mobile, and directional superstructures. Science Robotics, 2021, 6, .	17.6	32
47	Saddle-splay modulus of the AOT monolayer in the AOT-brine-oil system. Physical Review Letters, 1993, 70, 1485-1488.	7.8	31
48	Role of Fluctuation-Induced Interactions in the Axial Segregation of Granular Materials. Physical Review Letters, 2005, 95, 258002.	7.8	30
49	A numerical study of two dimensional flows past a bluff body for dilute polymer solutions. Journal of Non-Newtonian Fluid Mechanics, 2013, 196, 8-26.	2.4	30
50	Shock Front Width and Structure in Supersonic Granular Flows. Physical Review Letters, 2008, 101, 254503.	7.8	29
51	Tuning the Rheology of Conducting Polymer Inks for Various Deposition Processes. Chemistry of Materials, 2019, 31, 6936-6944.	6.7	29
52	Capillarylike Fluctuations at the Interface of Falling Granular Jets. Physical Review Letters, 2008, 100, 218001.	7.8	25
53	From Intermittent to Nonintermittent Behavior in Two Dimensional Thermal Convection in a Soap Bubble. Physical Review Letters, 2010, 105, 264502.	7.8	25
54	Drag enhancement and drag reduction in viscoelastic fluid flow around a cylinder. Europhysics Letters, 2010, 91, 64001.	2.0	25

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55	Numerical study of grid turbulence in two dimensions and comparison with experiments on turbulent soap films. Physical Review E, 1999, 60, R1162-R1165.	2.1	24
56	Intensity of vortices: from soap bubbles to hurricanes. Scientific Reports, 2013, 3, 3455.	3.3	24
57	Hydrodynamics experiments with soap films and soap bubbles: A short review of recent experiments. Physics of Fluids, 2017, 29, 111113.	4.0	24
58	Infrared technique for measuring thickness of a flowing soap film. Review of Scientific Instruments, 2001, 72, 2467-2471.	1.3	23
59	Thickness Fluctuations in Turbulent Soap Films. Physical Review Letters, 2002, 88, 194101.	7.8	23
60	Water Confinement Effects in Black Soap Films. Langmuir, 2003, 19, 1-5.	3.5	23
61	Taming contact line instability for pattern formation. Nature Communications, 2016, 7, 12458.	12.8	23
62	Shear Rheology Control of Wrinkles and Patterns in Graphene Oxide Films. Langmuir, 2018, 34, 2996-3002.	3.5	22
63	Drag Coefficient for a Circular Obstacle in a Quasi-Two-Dimensional Dilute Supersonic Granular Flow. Physical Review Letters, 2010, 105, 104501.	7.8	21
64	Reynolds number dependence of drag reduction by rodlike polymers. Physics of Fluids, 2008, 20, .	4.0	20
65	Shear-Induced First-Order Sponge-to-Lamellar Transition in a Lyotropic Surfactant System. Physical Review Letters, 2001, 86, 938-941.	7.8	19
66	Blast Shocks in Quasi-Two-Dimensional Supersonic Granular Flows. Physical Review Letters, 2009, 103, 224501.	7.8	19
67	Experimental Evidence of a Rayleigh-Plateau Instability in Free Falling Granular Jets. Physical Review Letters, 2011, 106, 198001.	7.8	19
68	Wetting and layering in critical binary fluid mixtures. Journal of Chemical Physics, 1993, 99, 7115-7123.	3.0	18
69	Testing a Missing Spectral Link in Turbulence. Physical Review Letters, 2012, 109, 254502.	7.8	18
70	Probability Density Functions of the Enstrophy Flux in Two Dimensional Grid Turbulence. Physical Review Letters, 2000, 84, 1696-1699.	7.8	16
71	Universal Aspects of Droplet Spreading Dynamics in Newtonian and Non-Newtonian Fluids. Langmuir, 2022, 38, 2608-2613.	3.5	16
72	Molecular Layering on a Fluid Substrate. Europhysics Letters, 1992, 20, 235-239.	2.0	15

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73	Polymer conformations and hysteretic stresses in nonstationary flows of polymer solutions. Europhysics Letters, 2009, 86, 34002.	2.0	15
74	Sorting and Extraction of Self-Propelled Chiral Particles by Polarized Wall Currents. Physical Review Letters, 2020, 125, 238003.	7.8	15
75	Batchelor Scaling in Fast-Flowing Soap Films. Physical Review Letters, 2004, 93, 214504.	7.8	14
76	Hurricane track forecast cones from fluctuations. Scientific Reports, 2012, 2, 446.	3.3	14
77	Stretching Polymers in Droplet-Pinch-Off Experiments. Physical Review X, 2013, 3, .	8.9	14
78	Delamination and Wrinkling of Flexible Conductive Polymer Thin Films. Advanced Functional Materials, 2021, 31, 2009039.	14.9	14
79	Elastic properties of monolayers of soluble surfactants at oil - brine interfaces. Journal of Physics Condensed Matter, 1996, 8, A49-A64.	1.8	13
80	Electric-field effects on a droplet microemulsion. Physical Review E, 1998, 57, 797-803.	2.1	13
81	Observations of the Collapse of Dilute Lyotropic Lamellar Phases under Shear Flow. Physical Review Letters, 2000, 84, 3073-3076.	7.8	13
82	Drop formation in shear-thickening granular suspensions. Physical Review E, 2015, 92, 052203.	2.1	13
83	Spreading of an Oil-in-Water Emulsion on a Glass Plate: Phase Inversion and Pattern Formation. Langmuir, 2015, 31, 5971-5981.	3.5	13
84	Large variability in the motility of spiroplasmas in media of different viscosities. Scientific Reports, 2018, 8, 17138.	3.3	13
85	Optical fiber velocimetry: A technique for measuring velocity in two-dimensional flows. Review of Scientific Instruments, 1998, 69, 3215-3222.	1.3	12
86	Confocal micro-Raman spectroscopy of black soap films. Journal of Chemical Physics, 1998, 108, 1284-1289.	3.0	12
87	Observation of a Finite-Time Singularity in Needle Propagation in Hele-Shaw Cells. Physical Review Letters, 1998, 81, 3860-3863.	7.8	12
88	Viscous fingering and related instabilities in complex fluids. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 78, 131-142.	0.6	12
89	Local Properties of an AOT Monolayer at the Oil/Water Interfaces: NMR Measurements. Europhysics Letters, 1994, 25, 735-741.	2.0	11
90	Thickness and organization of black films using confocal micro-Raman spectroscopy. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 171, 199-205.	4.7	11

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91	Fluctuation effects on wetting films. Europhysics Letters, 2001, 55, 827-833.	2.0	11
92	Structure of velocity distributions in shock waves in granular gases with extension to molecular gases. Physical Review E, 2016, 94, 022905.	2.1	11
93	Polymers suppress the inverse transfers of energy and the enstrophy flux fluctuations in two-dimensional turbulence. Physical Review E, 2004, 70, 036310.	2.1	10
94	The structures responsible for the inverse energy and the forward enstrophy cascades in two-dimensional turbulence. Europhysics Letters, 2007, 78, 34002.	2.0	10
95	Unstable blast shocks in dilute granular flows. Physical Review E, 2013, 87, 052202.	2.1	10
96	Dynamic light scattering from lyotropic lamellar phases subjected to a flow field. Physical Review E, 2001, 63, 041502.	2.1	9
97	Direct numerical simulations of 2D channel flows in the presence of polymers. Europhysics Letters, 2011, 95, 64003.	2.0	9
98	Characterization and control of a bottleneck-induced traffic-jam transition for self-propelled particles in a track. Physical Review E, 2019, 99, 052605.	2.1	9
99	Numerical simulations of thermal convection on a hemisphere. Physical Review Fluids, 2018, 3, .	2.5	9
100	Shock waves induced by a planar obstacle in a vibrated granular gas. Journal of Fluid Mechanics, 2018, 842, 163-187.	3.4	8
101	Effects of rotation on temperature fluctuations in turbulent thermal convection on a hemisphere. Scientific Reports, 2018, 8, 16513.	3.3	8
102	Local properties of an AOT monolayer at the oil-water interface : neutron scattering experiments. Journal De Physique II, 1993, 3, 1747-1757.	0.9	8
103	Rheology of polymer solutions using colloidal-probe atomic force microscopy. Physical Review E, 2013, 87, 062601.	2.1	7
104	Incompressible-compressible transition in falling granular jets. Europhysics Letters, 2013, 102, 24006.	2.0	7
105	Asymptotic turbulent friction in 2D rough-walled flows. Science Advances, 2021, 7, .	10.3	7
106	Near-Field Probe of Thermal Fluctuations of a Hemispherical Bubble Surface. Physical Review Letters, 2021, 126, 174503.	7.8	7
107	Droplet impacts on cold surfaces. Journal of Fluid Mechanics, 2022, 944, .	3.4	7
108	Bending elastic modulus of monolayers at oil-water interfaces. Thin Solid Films, 1992, 210-211, 118-120.	1.8	6

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109	Impact of drops on a water-covered sand bed: Erosion, entrainement and pattern formation. Europhysics Letters, 2005, 71, 400-406.	2.0	6
110	Intermittency of the velocity fluctuations in a granular surface flow. Physics of Fluids, 2007, 19, 078104.	4.0	6
111	Pinch-off in the presence of surface-active polymers. Europhysics Letters, 2011, 95, 54003.	2.0	6
112	Scaling of Near-Wall Flows in Quasi-Two-Dimensional Turbulent Channels. Physical Review Letters, 2014, 113, 024504.	7.8	6
113	Galloping instability and control of a rigid pendulum in a flowing soap film. Journal of Fluids and Structures, 2015, 56, 124-133.	3.4	6
114	A spaceâ€“time integral minimisation method for the reconstruction of velocity fields from measured scalar fields. Journal of Fluid Mechanics, 2018, 854, 348-366.	3.4	6
115	Classical hydrodynamics for analogue spaceâ€“times: open channel flows and thin films. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190233.	3.4	6
116	Bilayer in a Liquid Self-Supported Film. Langmuir, 2003, 19, 8615-8617.	3.5	5
117	Non-aeolian sand ripples. Europhysics Letters, 2005, 69, 365-370.	2.0	5
118	Emulsion Destabilization by Squeeze Flow. Langmuir, 2020, 36, 7795-7800.	3.5	5
119	Fluctuation-Induced Interaction in Turbulent Flows. Physical Review Letters, 2022, 128, 024503.	7.8	5
120	Wetting and prewetting in a binary fluid mixture. Journal of Physics Condensed Matter, 1994, 6, A389-A394.	1.8	4
121	Conformation Statistics of a Deformable Material Line in Two-Dimensional Turbulence. Physical Review Letters, 2005, 95, 054501.	7.8	4
122	Self-similar dynamic quasi-two-dimensional sand fronts. Physical Review E, 2003, 67, 010303.	2.1	3
123	Flow past a cylinder in diluted polymer solutions. Journal of Physics: Conference Series, 2011, 318, 092021.	0.4	3
124	Thick puddle made thin. Nature Physics, 2011, 7, 279-280.	16.7	3
125	Impact of the Wetting Length on Flexible Blade Spreading. Physical Review Letters, 2020, 125, 254506.	7.8	3
126	Experimental and numerical study of laser-induced secondary jetting. Journal of Fluid Mechanics, 2022, 934, .	3.4	3

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127	Experimental observation of prewetting in a binary liquid mixture. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1994, 98, 399-402.	0.9	2
128	Velocity fluctuations of a column of water streaming down a wire: the possibility of one-dimensional turbulence. European Physical Journal B, 1998, 4, 121-129.	1.5	2
129	Granular flow trapped on an incline: Dynamics of the sandpile. Physical Review E, 2003, 68, 061302.	2.1	2
130	Dispersion in the enstrophy cascade of two-dimensional decaying grid turbulence. Physical Review E, 2004, 69, 036305.	2.1	2
131	High-Reynolds-number turbulence in complex fluids. Europhysics Letters, 2013, 101, 24002.	2.0	2
132	Depletion forces induce visco-elasto-capillary thinning of non-Brownian suspensions. Europhysics Letters, 2016, 114, 58006.	2.0	2
133	Numerical Study of Rotating Thermal Convection on a Hemisphere. Fluids, 2020, 5, 185.	1.7	2
134	Multiresolution analysis for 2D turbulence. part 2: A physical interpretation. Discrete and Continuous Dynamical Systems - Series B, 2007, 7, 717-734.	0.9	2
135	A numerical study of grid turbulence in two dimensions. , 1998, , 129-134.		1
136	The levitation of a sphere by two parallel turbulent jets. Physics of Fluids, 2020, 32, .	4.0	1
137	Fluctuation and dissipation in liquid crystal electroconvection. Physica A: Statistical Mechanics and Its Applications, 2002, 314, 391-395.	2.6	0
138	Where surface physics and fluid dynamics meet: Rupture of an amphiphile layer by fluid flow. Journal of Chemical Physics, 2006, 124, 104701.	3.0	0
139	Identification and role of coherent structures in two-dimensional turbulence. , 2009, , 409-414.		0
140	The break-up dynamics of liquid threads revealed by laser radiation pressure and optocapillarity. , 2014, , .		0
141	Turbulent Thermal Convection and Emergence of Isolated Large Single Vortices in Soap Bubbles. Advances in Dynamics, Patterns, Cognition, 2013, , 191-206.	0.3	0
142	Cyclones dans des bulles de savon. , 2015, , 20-23.	0.1	0
143	Coherent Structures Identification in 2D Turbulence. , 2007, , 109-112.		0
144	A Hydrodynamic Analog of the Casimir Effect in Wave-Driven Turbulent Flows. Fluids, 2022, 7, 155.	1.7	0