

Hamid Kellay

List of Publications by Year in descending order

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144
papers

4,362
citations

87888

38
h-index

128289

60
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144
all docs

144
docs citations

144
times ranked

3391
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluctuation-Induced Interaction in Turbulent Flows. <i>Physical Review Letters</i> , 2022, 128, 024503.	7.8	5
2	Experimental and numerical study of laser-induced secondary jetting. <i>Journal of Fluid Mechanics</i> , 2022, 934, .	3.4	3
3	Universal Aspects of Droplet Spreading Dynamics in Newtonian and Non-Newtonian Fluids. <i>Langmuir</i> , 2022, 38, 2608-2613.	3.5	16
4	A Hydrodynamic Analog of the Casimir Effect in Wave-Driven Turbulent Flows. <i>Fluids</i> , 2022, 7, 155.	1.7	0
5	Droplet impacts on cold surfaces. <i>Journal of Fluid Mechanics</i> , 2022, 944, .	3.4	7
6	Asymptotic turbulent friction in 2D rough-walled flows. <i>Science Advances</i> , 2021, 7, .	10.3	7
7	Delamination and Wrinkling of Flexible Conductive Polymer Thin Films. <i>Advanced Functional Materials</i> , 2021, 31, 2009039.	14.9	14
8	Near-Field Probe of Thermal Fluctuations of a Hemispherical Bubble Surface. <i>Physical Review Letters</i> , 2021, 126, 174503.	7.8	7
9	From collections of independent, mindless robots to flexible, mobile, and directional superstructures. <i>Science Robotics</i> , 2021, 6, .	17.6	32
10	Impact of the Wetting Length on Flexible Blade Spreading. <i>Physical Review Letters</i> , 2020, 125, 254506.	7.8	3
11	Sorting and Extraction of Self-Propelled Chiral Particles by Polarized Wall Currents. <i>Physical Review Letters</i> , 2020, 125, 238003.	7.8	15
12	Numerical Study of Rotating Thermal Convection on a Hemisphere. <i>Fluids</i> , 2020, 5, 185.	1.7	2
13	The levitation of a sphere by two parallel turbulent jets. <i>Physics of Fluids</i> , 2020, 32, .	4.0	1
14	Emulsion Destabilization by Squeeze Flow. <i>Langmuir</i> , 2020, 36, 7795-7800.	3.5	5
15	Classical hydrodynamics for analogue space-time: open channel flows and thin films. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190233.	3.4	6
16	Tuning the Rheology of Conducting Polymer Inks for Various Deposition Processes. <i>Chemistry of Materials</i> , 2019, 31, 6936-6944.	6.7	29
17	Characterization and control of a bottleneck-induced traffic-jam transition for self-propelled particles in a track. <i>Physical Review E</i> , 2019, 99, 052605.	2.1	9
18	Shear Rheology Control of Wrinkles and Patterns in Graphene Oxide Films. <i>Langmuir</i> , 2018, 34, 2996-3002.	3.5	22

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19	Shock waves induced by a planar obstacle in a vibrated granular gas. <i>Journal of Fluid Mechanics</i> , 2018, 842, 163-187.	3.4	8
20	Boundaries Control Collective Dynamics of Inertial Self-Propelled Robots. <i>Physical Review Letters</i> , 2018, 120, 188002.	7.8	96
21	Effects of rotation on temperature fluctuations in turbulent thermal convection on a hemisphere. <i>Scientific Reports</i> , 2018, 8, 16513.	3.3	8
22	Viscous Effects on Inertial Drop Formation. <i>Physical Review Letters</i> , 2018, 121, 254501.	7.8	41
23	Large variability in the motility of spiroplasmas in media of different viscosities. <i>Scientific Reports</i> , 2018, 8, 17138.	3.3	13
24	A space-time integral minimisation method for the reconstruction of velocity fields from measured scalar fields. <i>Journal of Fluid Mechanics</i> , 2018, 854, 348-366.	3.4	6
25	Numerical simulations of thermal convection on a hemisphere. <i>Physical Review Fluids</i> , 2018, 3, .	2.5	9
26	Viscoelastic Drag Forces and Crossover from No-Slip to Slip Boundary Conditions for Flow near Air-Water Interfaces. <i>Physical Review Letters</i> , 2017, 118, 084501.	7.8	42
27	The Dynamic Surface Tension of Water. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1599-1603.	4.6	80
28	Hydrodynamics experiments with soap films and soap bubbles: A short review of recent experiments. <i>Physics of Fluids</i> , 2017, 29, 111113.	4.0	24
29	Depletion forces induce visco-elasto-capillary thinning of non-Brownian suspensions. <i>Europhysics Letters</i> , 2016, 114, 58006.	2.0	2
30	Taming contact line instability for pattern formation. <i>Nature Communications</i> , 2016, 7, 12458.	12.8	23
31	Structure of velocity distributions in shock waves in granular gases with extension to molecular gases. <i>Physical Review E</i> , 2016, 94, 022905.	2.1	11
32	Drop formation in shear-thickening granular suspensions. <i>Physical Review E</i> , 2015, 92, 052203.	2.1	13
33	Spreading of an Oil-in-Water Emulsion on a Glass Plate: Phase Inversion and Pattern Formation. <i>Langmuir</i> , 2015, 31, 5971-5981.	3.5	13
34	Flow Enhancement due to Elastic Turbulence in Channel Flows of Shear Thinning Fluids. <i>Physical Review Letters</i> , 2015, 114, 028302.	7.8	46
35	Galloping instability and control of a rigid pendulum in a flowing soap film. <i>Journal of Fluids and Structures</i> , 2015, 56, 124-133.	3.4	6
36	Cyclones dans des bulles de savon. , 2015, , 20-23.	0.1	0

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37	Passive appendages generate drift through symmetry breaking. Nature Communications, 2014, 5, 5310.	12.8	44
38	Nonuniversality in the Pinch-Off of Yield Stress Fluids: Role of Nonlocal Rheology. Physical Review Letters, 2014, 113, 218302.	7.8	33
39	The break-up dynamics of liquid threads revealed by laser radiation pressure and optocapillarity. , 2014, , .		0
40	Scaling of Near-Wall Flows in Quasi-Two-Dimensional Turbulent Channels. Physical Review Letters, 2014, 113, 024504.	7.8	6
41	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
42	Rheology of polymer solutions using colloidal-probe atomic force microscopy. Physical Review E, 2013, 87, 062601.	2.1	7
43	Incompressible-compressible transition in falling granular jets. Europhysics Letters, 2013, 102, 24006.	2.0	7
44	High-Reynolds-number turbulence in complex fluids. Europhysics Letters, 2013, 101, 24002.	2.0	2
45	Unstable blast shocks in dilute granular flows. Physical Review E, 2013, 87, 052202.	2.1	10
46	Stretching Polymers in Droplet-Pinch-Off Experiments. Physical Review X, 2013, 3, .	8.9	14
47	Intensity of vortices: from soap bubbles to hurricanes. Scientific Reports, 2013, 3, 3455.	3.3	24
48	Turbulent Thermal Convection and Emergence of Isolated Large Single Vortices in Soap Bubbles. Advances in Dynamics, Patterns, Cognition, 2013, , 191-206.	0.3	0
49	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
50	Dynamic interfacial tension effects in the rupture of liquid necks. Journal of Fluid Mechanics, 2012, 692, 499-510.	3.4	40
51	Hurricane track forecast cones from fluctuations. Scientific Reports, 2012, 2, 446.	3.3	14
52	Testing a Missing Spectral Link in Turbulence. Physical Review Letters, 2012, 109, 254502.	7.8	18
53	The Microcantilever: A Versatile Tool for Measuring the Rheological Properties of Complex Fluids. Journal of Sensors, 2012, 2012, 1-9.	1.1	44
54	Direct numerical simulations of 2D channel flows in the presence of polymers. Europhysics Letters, 2011, 95, 64003.	2.0	9

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55	Pinch-off in the presence of surface-active polymers. <i>Europhysics Letters</i> , 2011, 95, 54003.	2.0	6
56	Flow past a cylinder in diluted polymer solutions. <i>Journal of Physics: Conference Series</i> , 2011, 318, 092021.	0.4	3
57	Thick puddle made thin. <i>Nature Physics</i> , 2011, 7, 279-280.	16.7	3
58	Experimental Evidence of a Rayleigh-Plateau Instability in Free Falling Granular Jets. <i>Physical Review Letters</i> , 2011, 106, 198001.	7.8	19
59	Large velocity fluctuations in small-Reynolds-number pipe flow of polymer solutions. <i>Physical Review E</i> , 2011, 84, 045301.	2.1	47
60	Heterogeneity and the Role of Normal Stresses during the Extensional Thinning of Non-Brownian Shear-Thickening Fluids. <i>Physical Review Letters</i> , 2011, 107, 134503.	7.8	43
61	Macroscopic effects of the spectral structure in turbulent flows. <i>Nature Physics</i> , 2010, 6, 438-441.	16.7	37
62	From Intermittent to Nonintermittent Behavior in Two Dimensional Thermal Convection in a Soap Bubble. <i>Physical Review Letters</i> , 2010, 105, 264502.	7.8	25
63	Drag Coefficient for a Circular Obstacle in a Quasi-Two-Dimensional Dilute Supersonic Granular Flow. <i>Physical Review Letters</i> , 2010, 105, 104501.	7.8	21
64	Drag enhancement and drag reduction in viscoelastic fluid flow around a cylinder. <i>Europhysics Letters</i> , 2010, 91, 64001.	2.0	25
65	Effect of Surface Tension Variations on the Pinch-Off Behavior of Small Fluid Drops in the Presence of Surfactants. <i>Physical Review Letters</i> , 2009, 103, 264501.	7.8	59
66	Blast Shocks in Quasi-Two-Dimensional Supersonic Granular Flows. <i>Physical Review Letters</i> , 2009, 103, 224501.	7.8	19
67	Polymer conformations and hysteretic stresses in nonstationary flows of polymer solutions. <i>Europhysics Letters</i> , 2009, 86, 34002.	2.0	15
68	Identification and role of coherent structures in two-dimensional turbulence. , 2009, , 409-414.		0
69	Thermal Convection and Emergence of Isolated Vortices in Soap Bubbles. <i>Physical Review Letters</i> , 2008, 100, 144501.	7.8	52
70	Capillarylike Fluctuations at the Interface of Falling Granular Jets. <i>Physical Review Letters</i> , 2008, 100, 218001.	7.8	25
71	Drag Enhancement with Polymers. <i>Physical Review Letters</i> , 2008, 100, 018302.	7.8	39
72	Reynolds number dependence of drag reduction by rodlike polymers. <i>Physics of Fluids</i> , 2008, 20, .	4.0	20

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73	Shock Front Width and Structure in Supersonic Granular Flows. <i>Physical Review Letters</i> , 2008, 101, 254503.	7.8	29
74	Measurement of the slip length of water flow on graphite surface. <i>Applied Physics Letters</i> , 2008, 92, 053101.	3.3	90
75	Velocity Profiles of Water Flowing Past Solid Glass Surfaces Using Fluorescent Nanoparticles and Molecules as Velocity Probes. <i>Physical Review Letters</i> , 2008, 100, 214502.	7.8	48
76	The structures responsible for the inverse energy and the forward enstrophy cascades in two-dimensional turbulence. <i>Europhysics Letters</i> , 2007, 78, 34002.	2.0	10
77	The granular jump. <i>Journal of Fluid Mechanics</i> , 2007, 572, 413-431.	3.4	43
78	Intermittency of the velocity fluctuations in a granular surface flow. <i>Physics of Fluids</i> , 2007, 19, 078104.	4.0	6
79	Multiresolution analysis for 2D turbulence. part 2: A physical interpretation. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2007, 7, 717-734.	0.9	2
80	Coherent Structures Identification in 2D Turbulence. , 2007, , 109-112.		0
81	Dynamics of Impact Cratering in Shallow Sand Layers. <i>Physical Review Letters</i> , 2006, 96, 158001.	7.8	46
82	Speed of sound from shock fronts in granular flows. <i>Physics of Fluids</i> , 2006, 18, 031707.	4.0	45
83	Where surface physics and fluid dynamics meet: Rupture of an amphiphile layer by fluid flow. <i>Journal of Chemical Physics</i> , 2006, 124, 104701.	3.0	0
84	Non-aeolian sand ripples. <i>Europhysics Letters</i> , 2005, 69, 365-370.	2.0	5
85	Impact of drops on a water-covered sand bed: Erosion, entrainment and pattern formation. <i>Europhysics Letters</i> , 2005, 71, 400-406.	2.0	6
86	Experiments and direct numerical simulations of two-dimensional turbulence. <i>Physical Review E</i> , 2005, 71, 046305.	2.1	45
87	Conformation Statistics of a Deformable Material Line in Two-Dimensional Turbulence. <i>Physical Review Letters</i> , 2005, 95, 054501.	7.8	4
88	Role of Fluctuation-Induced Interactions in the Axial Segregation of Granular Materials. <i>Physical Review Letters</i> , 2005, 95, 258002.	7.8	30
89	Polymers suppress the inverse transfers of energy and the enstrophy flux fluctuations in two-dimensional turbulence. <i>Physical Review E</i> , 2004, 70, 036310.	2.1	10
90	Dispersion in the enstrophy cascade of two-dimensional decaying grid turbulence. <i>Physical Review E</i> , 2004, 69, 036305.	2.1	2

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91	Batchelor Scaling in Fast-Flowing Soap Films. <i>Physical Review Letters</i> , 2004, 93, 214504.	7.8	14
92	Water Confinement Effects in Black Soap Films. <i>Langmuir</i> , 2003, 19, 1-5.	3.5	23
93	Bilayer in a Liquid Self-Supported Film. <i>Langmuir</i> , 2003, 19, 8615-8617.	3.5	5
94	Self-similar dynamic quasi-two-dimensional sand fronts. <i>Physical Review E</i> , 2003, 67, 010303.	2.1	3
95	Granular flow trapped on an incline: Dynamics of the sandpile. <i>Physical Review E</i> , 2003, 68, 061302.	2.1	2
96	Thickness Fluctuations in Turbulent Soap Films. <i>Physical Review Letters</i> , 2002, 88, 194101.	7.8	23
97	Polymers in 2D Turbulence: Suppression of Large Scale Fluctuations. <i>Physical Review Letters</i> , 2002, 89, 104502.	7.8	33
98	Two-dimensional turbulence: a review of some recent experiments. <i>Reports on Progress in Physics</i> , 2002, 65, 845-894.	20.1	187
99	Fluctuation and dissipation in liquid crystal electroconvection. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 314, 391-395.	2.6	0
100	Noncoalescing Drops. <i>Physical Review Letters</i> , 2001, 87, 206104.	7.8	67
101	Fluctuation effects on wetting films. <i>Europhysics Letters</i> , 2001, 55, 827-833.	2.0	11
102	Shear-Induced First-Order Sponge-to-Lamellar Transition in a Lyotropic Surfactant System. <i>Physical Review Letters</i> , 2001, 86, 938-941.	7.8	19
103	Infrared technique for measuring thickness of a flowing soap film. <i>Review of Scientific Instruments</i> , 2001, 72, 2467-2471.	1.3	23
104	Inhibition of the Finite-Time Singularity during Droplet Fission of a Polymeric Fluid. <i>Physical Review Letters</i> , 2001, 86, 3558-3561.	7.8	145
105	Fluctuation and Dissipation in Liquid-Crystal Electroconvection. <i>Physical Review Letters</i> , 2001, 87, 245502.	7.8	54
106	Dynamic Sand Dunes. <i>Physical Review Letters</i> , 2001, 86, 4286-4289.	7.8	58
107	Dynamic light scattering from lyotropic lamellar phases subjected to a flow field. <i>Physical Review E</i> , 2001, 63, 041502.	2.1	9
108	Thickness and organization of black films using confocal micro-Raman spectroscopy. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2000, 171, 199-205.	4.7	11

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109	Observations of the Collapse of Dilute Lyotropic Lamellar Phases under Shear Flow. <i>Physical Review Letters</i> , 2000, 84, 3073-3076.	7.8	13
110	Coupling between Flow and Structure for a Lamellar Surfactant Phase. <i>Physical Review Letters</i> , 2000, 84, 1335-1338.	7.8	56
111	Probability Density Functions of the Enstrophy Flux in Two Dimensional Grid Turbulence. <i>Physical Review Letters</i> , 2000, 84, 1696-1699.	7.8	16
112	Aging of a colloidal "Wigner" glass. <i>Europhysics Letters</i> , 1999, 45, 52-57.	2.0	215
113	Numerical study of grid turbulence in two dimensions and comparison with experiments on turbulent soap films. <i>Physical Review E</i> , 1999, 60, R1162-R1165.	2.1	24
114	Laponite: What Is the Difference between a Gel and a Glass?. <i>Langmuir</i> , 1999, 15, 7534-7536.	3.5	244
115	Velocity fluctuations in a turbulent soap film: The third moment in two dimensions. <i>Physics of Fluids</i> , 1999, 11, 1196-1200.	4.0	42
116	Velocity fluctuations of a column of water streaming down a wire: the possibility of one-dimensional turbulence. <i>European Physical Journal B</i> , 1998, 4, 121-129.	1.5	2
117	Optical fiber velocimetry: A technique for measuring velocity in two-dimensional flows. <i>Review of Scientific Instruments</i> , 1998, 69, 3215-3222.	1.3	12
118	Confocal micro-Raman spectroscopy of black soap films. <i>Journal of Chemical Physics</i> , 1998, 108, 1284-1289.	3.0	12
119	Delayed Fracture of an Inhomogeneous Soft Solid. <i>Science</i> , 1998, 280, 265-267.	12.6	162
120	Observation of a Finite-Time Singularity in Needle Propagation in Hele-Shaw Cells. <i>Physical Review Letters</i> , 1998, 81, 3860-3863.	7.8	12
121	Electric-field effects on a droplet microemulsion. <i>Physical Review E</i> , 1998, 57, 797-803.	2.1	13
122	Bistability in non-Newtonian flow: Rheology of lyotropic liquid crystals. <i>Physical Review E</i> , 1998, 58, 2115-2118.	2.1	74
123	Vorticity Measurements in Turbulent Soap Films. <i>Physical Review Letters</i> , 1998, 80, 277-280.	7.8	43
124	Viscous fingering and related instabilities in complex fluids. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1998, 78, 131-142.	0.6	12
125	A numerical study of grid turbulence in two dimensions. , 1998, , 129-134.		1
126	Elastic properties of monolayers of soluble surfactants at oil - brine interfaces. <i>Journal of Physics Condensed Matter</i> , 1996, 8, A49-A64.	1.8	13

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127	Viscous fingering in complex fluids. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1995, 220, 60-73.	2.6	56
128	Hydrodynamic Convection in a Two-Dimensional Couette Cell. <i>Physical Review Letters</i> , 1995, 75, 236-239.	7.8	42
129	Viscous Finger Widening with Surfactants and Polymers. <i>Physical Review Letters</i> , 1995, 75, 2132-2135.	7.8	84
130	Experiments with Turbulent Soap Films. <i>Physical Review Letters</i> , 1995, 74, 3975-3978.	7.8	141
131	Wetting and prewetting in a binary fluid mixture. <i>Journal of Physics Condensed Matter</i> , 1994, 6, A389-A394.	1.8	4
132	Local Properties of an AOT Monolayer at the Oil/Water Interfaces: NMR Measurements. <i>Europhysics Letters</i> , 1994, 25, 735-741.	2.0	11
133	Metastable States and Nucleation near First-Order Wetting Transitions. <i>Physical Review Letters</i> , 1994, 73, 3560-3563.	7.8	35
134	Properties of surfactant monolayers in relation to microemulsion phase behaviour. <i>Advances in Colloid and Interface Science</i> , 1994, 49, 85-112.	14.7	96
135	Experimental observation of prewetting in a binary liquid mixture. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1994, 98, 399-402.	0.9	2
136	Prewetting in a binary liquid mixture. <i>Physical Review Letters</i> , 1993, 71, 2607-2610.	7.8	113
137	Wetting and layering in critical binary fluid mixtures. <i>Journal of Chemical Physics</i> , 1993, 99, 7115-7123.	3.0	18
138	Saddle-splay modulus of the AOT monolayer in the AOT-brine-oil system. <i>Physical Review Letters</i> , 1993, 70, 1485-1488.	7.8	31
139	Local properties of an AOT monolayer at the oil-water interface : neutron scattering experiments. <i>Journal De Physique II</i> , 1993, 3, 1747-1757.	0.9	8
140	Molecular Layering on a Fluid Substrate. <i>Europhysics Letters</i> , 1992, 20, 235-239.	2.0	15
141	Wetting properties ofn-alkanes on AOT monolayers at the brine-air interface. <i>Physical Review Letters</i> , 1992, 69, 1220-1223.	7.8	45
142	Experimental observation of hysteresis in a wetting transition. <i>Physical Review Letters</i> , 1992, 69, 1975-1978.	7.8	83
143	Bending elastic modulus of monolayers at oil-water interfaces. <i>Thin Solid Films</i> , 1992, 210-211, 118-120.	1.8	6
144	Effects of Alkane Chain Length on the Bending Elasticity Constant K_b of AOT Monolayers at the Planar Oil-Water Interface. <i>Europhysics Letters</i> , 1991, 16, 53-58.	2.0	72