

# Chi-Keung Chan

## List of Publications by Year in descending order

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77  
papers

1,150  
citations

394421

19  
h-index

414414

32  
g-index

78  
all docs

78  
docs citations

78  
times ranked

716  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of Air on the Segregation of Particles in a Shaken Granular Bed. <i>Physical Review Letters</i> , 2003, 91, 014302.	7.8	100
2	Turbulent Drag Reduction and Degradation of DNA. <i>Physical Review Letters</i> , 2002, 89, 088302.	7.8	79
3	Experimental study and model simulation of spinodal decomposition in a binary mixture under shear. <i>Physical Review A</i> , 1991, 43, 1826-1839.	2.5	62
4	Turbulent transition by photon-correlation spectroscopy. <i>Physical Review A</i> , 1988, 37, 2125-2133.	2.5	55
5	Effects of Hydrodynamics on Growth: Spinodal Decomposition under Uniform Shear Flow. <i>Physical Review Letters</i> , 1988, 61, 412-415.	7.8	52
6	Global Nature of Dilute-to-Dense Transition of Granular Flows in a 2D Channel. <i>Physical Review Letters</i> , 2003, 91, 204301.	7.8	52
7	Cluster synchronization and spatio-temporal dynamics in networks of oscillatory and excitable Luo-Rudy cells. <i>Chaos</i> , 2007, 17, 015111.	2.5	45
8	Temperature Oscillations in a Compartmentalized Bidisperse Granular Gas. <i>Physical Review Letters</i> , 2008, 100, 068001.	7.8	40
9	Friction Induced Segregation of a Granular Binary Mixture in a Rotating Drum. <i>Physical Review Letters</i> , 1997, 79, 4994-4997.	7.8	38
10	$\lambda$ -DNA Induced Turbulent Drag Reduction and Its Characteristics. <i>Macromolecules</i> , 2003, 36, 5348-5354.	4.8	37
11	Late-stage phase separation and hydrodynamic flow in a binary liquid mixture. <i>Physical Review Letters</i> , 1987, 58, 674-677.	7.8	32
12	Effects of Shear on the Phase Transition of Binary Mixtures. <i>Europhysics Letters</i> , 1990, 11, 13-18.	2.0	31
13	Connectivities and Synchronous Firing in Cortical Neuronal Networks. <i>Physical Review Letters</i> , 2004, 93, 088101.	7.8	31
14	Ambient pressure and single-bubble sonoluminescence. <i>Physical Review E</i> , 1998, 57, R32-R35.	2.1	30
15	Empty Site Models for Heap Formation in Vertically Vibrating Grains. <i>Physical Review Letters</i> , 1999, 83, 3832-3835.	7.8	29
16	Spiral wave dynamics under feedback derived from a confined circular domain. <i>Physical Review E</i> , 2001, 64, 035201.	2.1	26
17	Spinodal Decomposition under Shear: Towards a Two-Dimensional Growth?. <i>Europhysics Letters</i> , 1989, 9, 65-70.	2.0	24
18	Polymer turbulent drag reduction near the theta point. <i>Europhysics Letters</i> , 2007, 80, 58003.	2.0	23

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19	Positive feedback and synchronized bursts in neuronal cultures. PLoS ONE, 2017, 12, e0187276.	2.5	23
20	Turbulent drag reduction characteristics induced by calf-thymus DNA. Physica A: Statistical Mechanics and Its Applications, 2005, 350, 84-88.	2.6	20
21	Observations of Surfactant Driven Instability in a Hele-Shaw Cell. Physical Review Letters, 1997, 79, 4381-4384.	7.8	18
22	Growth of cortical neuronal network in vitro: Modeling and analysis. Physical Review E, 2006, 73, 051906.	2.1	17
23	Frequency Enhancement in Coupled Noisy Excitable Elements. Physical Review Letters, 2011, 106, 254102.	7.8	16
24	Light-scattering study of a turbulent critical binary mixture near the critical point. Physical Review A, 1987, 35, 1756-1765.	2.5	15
25	Critical Phenomena in an Immiscible Lattice-Gas Cellular Automaton. Europhysics Letters, 1990, 13, 495-500.	2.0	15
26	Effect of Turbulent Flow on Coil-Globule Transition of $\lambda$ -DNA. Macromolecular Rapid Communications, 2005, 26, 1237-1240.	3.9	15
27	Synchronization in growing heterogeneous media. Europhysics Letters, 2009, 86, 18001.	2.0	15
28	Suppression of cardiac alternans by alternating-period-feedback stimulations. Physical Review E, 2013, 87, 042712.	2.1	14
29	Characterization of Predictive Behavior of a Retina by Mutual Information. Frontiers in Computational Neuroscience, 2017, 11, 66.	2.1	14
30	Measurement of the shape of a liquid-liquid interface by the method of light reflection. Review of Scientific Instruments, 1993, 64, 632-637.	1.3	13
31	Scaling Behaviour in the Demixing of a Binary-Liquid Mixture under Gravity. Europhysics Letters, 1992, 19, 311-316.	2.0	11
32	Dynamics of the formation of an aureole in the bursting of soap films. Physical Review E, 1996, 54, R3117-R3120.	2.1	11
33	Dynamics of Spiral Waves under Phase Feedback Control in a Belousov-Zhabotinsky Reaction. Physical Review Letters, 2002, 89, 248302.	7.8	10
34	Anisotropic phase separation of a nonequilibrium liquid-liquid interface. Physical Review Letters, 1994, 72, 2915-2918.	7.8	9
35	Surfactant wetting layer driven instability in a Hele-Shaw cell. Physica A: Statistical Mechanics and Its Applications, 2000, 288, 315-325.	2.6	9
36	Scalings of growing self-organized surfaces. Physical Review Letters, 1991, 67, 1122-1125.	7.8	8

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37	Symmetric heaping in grains: A phenomenological model. <i>Physical Review E</i> , 2000, 61, 5593-5599.	2.1	8
38	Observation of two forms of conformations in the reentrant condensation of DNA. <i>Physical Review E</i> , 2007, 75, 041922.	2.1	7
39	Intrinsic fluctuations of cell migration under different cellular densities. <i>Soft Matter</i> , 2014, 10, 3421.	2.7	7
40	Scaling properties of avalanches from a collapsing granular pile. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2000, 281, 404-412.	2.6	6
41	Reconstruction of network structures from repeating spike patterns in simulated bursting dynamics. <i>Physical Review E</i> , 2014, 90, 012703.	2.1	6
42	Ionic characteristics in cardiac alternans suppression using $T \pm \mu$ feedback control. <i>Europhysics Letters</i> , 2016, 115, 48001.	2.0	6
43	Simple overshoot-suppressed digital proportional-integral-derivative temperature controller. <i>Review of Scientific Instruments</i> , 1988, 59, 1001-1003.	1.3	5
44	Hydrodynamics, growth and interfaces. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1991, 172, 87-102.	2.6	5
45	Granular Gases in Compartmentalized Systems. <i>Journal of the Physical Society of Japan</i> , 2009, 78, 041001.	1.6	5
46	Propagation and synchronization of reverberatory bursts in developing cultured networks. <i>Journal of Computational Neuroscience</i> , 2017, 42, 177-185.	1.0	5
47	Anticipation and negative group delay in a retina. <i>Physical Review E</i> , 2021, 103, L020401.	2.1	5
48	Map-based model of the cardiac action potential. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2011, 375, 2894-2902.	2.1	4
49	Effects of glial release and somatic receptors on bursting in synchronized neuronal networks. <i>Physical Review E</i> , 2011, 84, 011907.	2.1	4
50	Predicting self-terminating ventricular fibrillations in an isolated heart. <i>Europhysics Letters</i> , 2013, 104, 48002.	2.0	4
51	Astrocytic Regulation of Synchronous Bursting in Cortical Cultures: From Local to Global. <i>Cerebral Cortex Communications</i> , 2020, 1, tgaa053.	1.6	4
52	Active-coupling mixing times for a stirred binary liquid. <i>Physical Review A</i> , 1985, 32, 3117-3117.	2.5	3
53	Spiral waves in the heterogeneous excitable Kuramoto model. <i>Europhysics Letters</i> , 2011, 94, 60006.	2.0	3
54	Adaptive synchronization and anticipatory dynamical systems. <i>Physical Review E</i> , 2015, 92, 030701.	2.1	3

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55	Dynamics of Demixing of Binary Liquid Mixtures in an Inclined Cylinder. Europhysics Letters, 1993, 24, 365-371.	2.0	2
56	Fast thickness profile measurement of a thin film by using a line scan charge coupled device camera. Review of Scientific Instruments, 1997, 68, 4525-4530.	1.3	2
57	CONNECTIVITY INDUCED SYNCHRONIZATION IN CORTICAL NEURONAL NETWORKS. International Journal of Modern Physics B, 2007, 21, 4117-4123.	2.0	2
58	Stretching and migration of DNA by solvent elasticity in an oscillatory flow. Physical Review E, 2011, 84, 021802.	2.1	2
59	Frequency enhancement in coupled noisy excitable elements: effects of network topology. European Physical Journal B, 2013, 86, 1.	1.5	2
60	Cardiac alternans reduction by chaotic attractors in T <sub>A</sub> feedback control. Europhysics Letters, 2017, 117, 50001.	2.0	2
61	Chan and Liang reply. Physical Review Letters, 1992, 68, 723-723.	7.8	1
62	Morphology and dynamics of a separating immiscible binary liquid mixture under gravity. Physica A: Statistical Mechanics and Its Applications, 1994, 205, 320-329.	2.6	1
63	SCALING PROPERTY OF THE DILUTE-DENSE TRANSITION IN 2D GRANULAR FLOWS. International Journal of Modern Physics B, 2004, 18, 2441-2447.	2.0	1
64	DNA-Induced Turbulent Drag Reduction and Their Molecular Characteristics. AIP Conference Proceedings, 2006, , .	0.4	1
65	NEURONAL NETWORK GROWTH: MODEL AND EXPERIMENT. International Journal of Modern Physics B, 2007, 21, 4111-4116.	2.0	1
66	Zero-refractoriness spirals in phase-coupled excitable media. Physical Review E, 2009, 80, 065202.	2.1	1
67	Heaping instabilities in a layered Bi-disperse granular bed. Europhysics Letters, 2012, 100, 44002.	2.0	1
68	Effect of degassing on the aggregation of carbon nanotubes dispersed in water. Europhysics Letters, 2017, 120, 16004.	2.0	1
69	Synchronization Phenomena in Networks of Oscillatory and Excitable Luo-Rudy Cells. Understanding Complex Systems, 2009, , 107-126.	0.6	1
70	Chan and Liang Reply. Physical Review Letters, 1992, 68, 1963-1963.	7.8	0
71	Convection patterns on the liquid-liquid interface of a phase-separated binary mixture. Europhysics Letters, 1996, 36, 123-128.	2.0	0
72	Dynamics of phase separation of a binary mixture in the presence of polymer additives. , 1999, , .		0

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73	The Global Property of the Dilute-to-Dense Transition of Granular Flows in a 2D Channel. , 2005, , 559-567.		0
74	Dynamics of beating cardiac tissue under slow periodic drives. Physical Review E, 2020, 101, 012201.	2.1	0
75	Synchronized Bursting Induced by Network Connectivity in Cortical Neuronal Cultures. Journal of the Korean Physical Society, 2007, 50, 207.	0.7	0
76	Active Prediction in Dynamical Systems. Lecture Notes in Computer Science, 2017, , 632-638.	1.3	0
77	Modelling Predictive Information of Stochastic Dynamics in the Retina. Lecture Notes in Computer Science, 2018, , 246-257.	1.3	0