Manuel G Velarde

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6131378/publications.pdf

Version: 2024-02-01

384	9,551	36303	69250
papers	citations	51 h-index	77 g-index

397	397	397	3921
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Convective instability: A physicist's approach. Reviews of Modern Physics, 1977, 49, 581-624.	45.6	548
2	Momentum transport at a fluidâ€“porous interface. International Journal of Heat and Mass Transfer, 2003, 46, 4071-4081.	4.8	255
3	Dewetting: Film Rupture by Nucleation in the Spinodal Regime. Physical Review Letters, 2001, 87, 016104.	7.8	180
4	On weakly nonlinear modulation of waves on deep water. Physics of Fluids, 2000, 12, 2432.	4.0	151
5	Dissipative solitons. Physica D: Nonlinear Phenomena, 1995, 86, 323-347.	2.8	143
6	Wetting and Spreading Dynamics. , 0, , .		138
7	Spreading of Liquid Drops over Dry Porous Layers: Complete Wetting Case. Journal of Colloid and Interface Science, 2002, 252, 397-408.	9.4	134
8	Dark solitons and their head-on collisions in Bose-Einstein condensates. Physical Review A, 2001, 64, .	2.5	129
9	Thermocapillary instability and wave formation on a film falling down a uniformly heated plane. Journal of Fluid Mechanics, 2003, 492, 303-338.	3.4	124
10	Discrete breathers in crystals. Physics-Uspekhi, 2016, 59, 446-461.	2.2	117
11	MUTUAL SYNCHRONIZATION OF CHAOTIC SELF-OSCILLATORS WITH DISSIPATIVE COUPLING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1992, 02, 669-676.	1.7	113
12	Spreading of liquid drops over porous substrates. Advances in Colloid and Interface Science, 2003, 104, 123-158.	14.7	109
13	Two-dimensional solitons in Bose-Einstein condensates with a disk-shaped trap. Physical Review A, 2003, 67, .	2.5	107
14	Well-posed Boussinesq paradigm with purely spatial higher-order derivatives. Physical Review E, 1996, 54, 3621-3638.	2.1	100
15	Thermocapillary long waves in a liquid film flow. Part 1. Low-dimensional formulation. Journal of Fluid Mechanics, 2005, 538, 199.	3.4	100
16	Head-on collision of two concentric cylindrical ion acoustic solitary waves. Physical Review E, 1996, 53, 2988-2991.	2.1	97
17	Spiking Behavior in a Noise-Driven System Combining Oscillatory and Excitatory Properties. Physical Review Letters, 2001, 86, 3431-3434.	7.8	94
18	Simultaneous spreading and evaporation: Recent developments. Advances in Colloid and Interface Science, 2014, 206, 382-398.	14.7	90

#	Article	IF	Citations
19	Thermocapillary long waves in a liquid film flow. Part 2. Linear stability and nonlinear waves. Journal of Fluid Mechanics, 2005, 538, 223.	3.4	89
20	Surface forces and wetting phenomena. Journal of Physics Condensed Matter, 2009, 21, 464121.	1.8	88
21	Evaporation of Droplets of Surfactant Solutions. Langmuir, 2013, 29, 10028-10036.	3.5	87
22	Dissipative Kortewegâ€“de Vries description of Marangoniâ€“BÃ©nard oscillatory convection. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2295-2300.	1.6	86
23	Spreading of Surfactant Solutions over Hydrophobic Substrates. Journal of Colloid and Interface Science, 2000, 227, 185-190.	9.4	83
24	Surface Tension and Dynamic Contact Angle of Water in Thin Quartz Capillaries. Journal of Colloid and Interface Science, 2000, 222, 51-54.	9.4	82
25	Spreading of Liquid Drops over Saturated Porous Layers. Journal of Colloid and Interface Science, 2002, 246, 372-379.	9.4	82
26	A threeâ€dimensional description of solitary waves and their interaction in Marangoniâ€“BÃ©nard layers. Physics of Fluids, 1994, 6, 187-198.	4.0	78
27	Stability analysis of thin film flow along a heated porous wall. Physics of Fluids, 2009, 21, .	4.0	77
28	Evaporation of sessile water droplets: Universal behaviour in presence of contact angle hysteresis. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 391, 135-144.	4.7	75
29	Thermocapillary convection in two-layer systems. International Journal of Heat and Mass Transfer, 1998, 41, 1499-1511.	4.8	74
30	Thermal Diffusion and Convective Stability. II. An Analysis of the Convected Fluxes. Physics of Fluids, 1972, 15, 1707.	1.4	70
31	Synergetic Phenomena in Active Lattices. Springer Series in Synergetics, 2002, , .	0.4	68
32	From polaron to solectron: The addition of nonlinear elasticity to quantum mechanics and its possible effect upon electric transport. Journal of Computational and Applied Mathematics, 2010, 233, 1432-1445.	2.0	66
33	Exact periodic solutions of the complex Ginzburgâ€“Landau equation. Journal of Mathematical Physics, 1999, 40, 884-896.	1.1	65
34	Sliding drops on an inclined plane. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 206, 87-104.	4.7	63
35	Sliding drops in the diffuse interface model coupled to hydrodynamics. Physical Review E, 2001, 64, 061601.	2.1	62
36	Polymer monolayers with a small viscoelastic linear regime: Equilibrium and rheology of poly(octadecyl acrylate) and poly(vinyl stearate). Journal of Chemical Physics, 2007, 126, 124904.	3.0	62

#	Article	IF	Citations
37	Surface rheology, equilibrium and dynamic features at interfaces, with emphasis on efficient tools for probing polymer dynamics at interfaces. Advances in Colloid and Interface Science, 2007, 134-135, 175-189.	14.7	62
38	Internal Tides in the Strait of Gibraltar. Journal of Physical Oceanography, 2002, 32, 3193-3206.	1.7	61
39	Instantaneous distribution of fluxes in the course of evaporation of sessile liquid droplets: Computer simulations. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 372, 127-134.	4.7	61
40	BÃ©nardâ€“Marangoni convection with a deformable interface and poorly conducting boundaries. Physics of Fluids, 1987, 30, 2655-2661.	1.4	60
41	Film rupture in the diffuse interface model coupled to hydrodynamics. Physical Review E, 2001, 64, 031602.	2.1	60
42	Spreading of non-Newtonian liquids over solid substrates. Journal of Colloid and Interface Science, 2003, 257, 284-290.	9.4	60
43	Buoyancy-thermocapillary instability: the role of interfacial deformation in one- and two-component fluid layers heated from below or above. Journal of Fluid Mechanics, 1982, 125, 463.	3.4	59
44	Excitability following an avalanche-collapse process. Europhysics Letters, 1997, 38, 85-90.	2.0	58
45	Transverse and longitudinal waves induced and sustained by surfactant gradients at liquid-liquid interfaces. Journal of Colloid and Interface Science, 1989, 131, 471-484.	9.4	56
46	Transverse and longitudinal waves at the air-liquid interface in the presence of an adsorption barrier. Journal of Colloid and Interface Science, 1992, 150, 7-21.	9.4	55
47	Effect of anharmonicity on charge transport in hydrogen-bonded systems. Physical Review B, 2006, 73, .	3.2	55
48	The Two-component BÃ©nard Problem. Advances in Chemical Physics, 2007, , 265-301.	0.3	55
49	ON THE POSSIBILITY OF ELECTRIC CONDUCTION MEDIATED BY DISSIPATIVE SOLITONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 245-251.	1.7	53
50	Evidence for solitary wave behavior in Marangoniâ€“BÃ©nard convection. Physics of Fluids A, Fluid Dynamics, 1992, 4, 921-926.	1.6	52
51	Bifurcation analysis and existence of periodic solutions in a simple neural network with delays. Chaos, 2004, 14, 940-953.	2.5	52
52	Droplets evaporation: Problems and solutions. European Physical Journal: Special Topics, 2011, 197, 265-278.	2.6	52
53	Computer Simulations of Evaporation of Pinned Sessile Droplets: Influence of Kinetic Effects. Langmuir, 2012, 28, 15203-15211.	3.5	52
54	Drop motion with surfactant transfer in a homogeneous surrounding. Physics of Fluids, 1994, 6, 451-468.	4.0	51

#	Article	IF	Citations
55	BÃ©nardâ€“Marangoni convection: planforms and related theoretical predictions. Journal of Fluid Mechanics, 1998, 368, 165-194.	3.4	50
56	Interfacial Wave Motions Due to Marangoni Instability. Journal of Colloid and Interface Science, 1997, 188, 16-26.	9.4	49
57	On the Spreading of an Insoluble Surfactant over a Thin Viscous Liquid Layer. Journal of Colloid and Interface Science, 1997, 190, 104-113.	9.4	48
58	On the importance of nucleation solutions for the rupture of thin liquid films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 206, 135-155.	4.7	48
59	Oscillatory Phenomena andQSwitching in a Model for a Laser with a Saturable Absorber. Physical Review Letters, 1981, 47, 1895-1898.	7.8	47
60	Oscillatory and steady convection in dielectric liquid layers subjected to unipolar injection and temperature gradient. Physics of Fluids, 1984, 27, 1607.	1.4	47
61	Oscillatory Marangoniâ€“Bèˆnard interfacial instability and capillaryâ€“gravity waves in single- and two-component liquid layers with or without Soret thermal diffusion. Physics of Fluids, 1987, 30, 1649.	1.4	47
62	Oblique and headâ€on collisions of solitary waves in Marangoniâ€“BÃ©nard convection. Physics of Fluids A, Fluid Dynamics, 1993, 5, 1068-1070.	1.6	45
63	Onset of oscillatory interfacial instability and wave motions in BÃ©nard layers. Advances in Applied Mechanics, 2001, 37, 167-238.	2.3	45
64	Kortewegâ€“de Vries soliton excitation in BÃ©nard-Marangoni convection. Physical Review A, 1991, 43, 1094-1096.	2.5	42
65	Spreading of Liquid Drops over Thick Porous Layers:â€‰ Complete Wetting Case. Langmuir, 2002, 18, 9744-9750.	3.5	42
66	On the (non linear) foundations of Boussinesq approximation applicable to a thin layer of fluid. Journal De Physique, 1975, 36, 591-601.	1.8	41
67	Drops, liquid layers and the Marangoni effect. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1998, 356, 829-844.	3.4	41
68	Electron capture and transport mediated by lattice solitons. Physical Review E, 2007, 76, 046602.	2.1	40
69	Soliton-like excitations and solectrons in two-dimensional nonlinear lattices. European Physical Journal B, 2011, 80, 137-145.	1.5	40
70	Thermal diffusion and convective stability (III): A critical survey of Soret coefficient measurements. Chemical Physics Letters, 1971, 12, 312-315.	2.6	39
71	INELASTIC INTERACTION OF BOUSSINESQ SOLITONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1994, 04, 1095-1112.	1.7	39
72	The straits of Gibraltar and Kara Gates: a comparison of internal tides. Oceanologica Acta: European Journal of Oceanology - Revue Europeene De Oceanologie, 2003, 26, 231-241.	0.7	39

#	Article	IF	Citations
73	DISSIPATIVE SOLITONS AND COMPLEX CURRENTS IN ACTIVE LATTICES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 1613-1632.	1.7	39
74	On the possibility of electric transport mediated by long living intrinsic localized solectron modes. European Physical Journal B, 2011, 80, 545-554.	1.5	38
75	Thermal diffusion and the Marangoni-Benard instability of a two-component fluid layer heated from below. Physics Letters, Section A: General, Atomic and Solid State Physics, 1978, 66, 489-491.	2.1	36
76	Nonlinear excitations and electric transport in dissipative Morse-Toda lattices. European Physical Journal B, 2006, 51, 87-99.	1.5	36
77	SOLITARY WAVES, SOLITON BOUND STATES AND CHAOS IN A DISSIPATIVE KORTEWEG-DE VRIES EQUATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1994, 04, 1135-1146.	1.7	35
78	Capillary imbibition of surfactant solutions in porous media and thin capillaries: partial wetting case. Journal of Colloid and Interface Science, 2004, 273, 589-595.	9.4	35
79	Local electron distributions and diffusion in anharmonic lattices mediated by thermally excited solitons. European Physical Journal B, 2009, 70, 217-227.	1.5	35
80	On the (non-linear) foundations of boussinesq approximation applicable to a thin layer of fluid. (II). viscous dissipation and large cell gap effects. Journal De Physique, 1976, 37, 177-182.	1.8	34
81	Wall reflections of solitary waves in Marangoniâ€“BÃ©nard convection. Physics of Fluids A, Fluid Dynamics, 1993, 5, 3162-3166.	1.6	34
82	Spatial disorder and pattern formation in lattices of coupled bistable elements. Physica D: Nonlinear Phenomena, 1997, 100, 330-342.	2.8	34
83	Implicit time splitting for fourth-order parabolic equations. Computer Methods in Applied Mechanics and Engineering, 1997, 148, 209-224.	6.6	34
84	Rayleighâ€“Marangoni oscillatory instability in a horizontal liquid layer heated from above: coupling and mode mixing of internal and surface dilational waves. Journal of Fluid Mechanics, 2000, 405, 57-77.	3.4	34
85	Properties of nano-scale soliton-like excitations in two-dimensional lattice layers. Physica D: Nonlinear Phenomena, 2011, 240, 1954-1959.	2.8	34
86	Rayleigh-Benard-Marangoni Instability: New Experimental Results. Journal of Non-Equilibrium Thermodynamics, 1979, 4, .	4.2	33
87	Electrohydrodynamic stability in the presence of a thermal gradient. Physics of Fluids, 1981, 24, 1784.	1.4	33
88	Dissipative Toda-Rayleigh lattice and its oscillatory modes. Physical Review E, 2001, 64, 036601.	2.1	32
89	Inertial oscillations as deep ocean response to hurricanes. Journal of Oceanography, 2008, 64, 495-509.	1.7	32
90	Bistable Limit Cycles in a Model for a Laser with a Saturable Absorber. Physical Review Letters, 1982, 49, 35-38.	7.8	31

#	Article	IF	Citations
91	ON SOLITON-MEDIATED FAST ELECTRIC CONDUCTION IN A NONLINEAR LATTICE WITH MORSE INTERACTIONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 1035-1039.	1.7	31
92	Microgravity and the Thermoconvective Stability of a Binary Liquid Layer Open to the Ambient Air. Journal of Non-Equilibrium Thermodynamics, 1980, 5, .	4.2	30
93	Short-wavelength instability in systems with slow long-wavelength dynamics. Physical Review E, 1996, 54, 4973-4981.	2.1	30
94	Dissolution of a Drop on a Liquid Surface Leading to Surface Waves and Interfacial Turbulence. Journal of Colloid and Interface Science, 1997, 191, 65-80.	9.4	30
95	SOLITON-LIKE WAVES ON DISSIPATIVE TODA LATTICES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2000, 10, 1075-1089.	1.7	30
96	Modeling inferior olive neuron dynamics. Neural Networks, 2002, 15, 5-10.	5.9	30
97	THERMAL SOLITONS AND SOLECTRONS IN 1D ANHARMONIC LATTICES UP TO PHYSIOLOGICAL TEMPERATURES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 3815-3823.	1.7	30
98	Head-on collisions of dark solitons near the zero-dispersion point in optical fibers. Physical Review E, 1996, 54, 3048-3051.	2.1	29
99	Suppressing falling film instabilities by Marangoni forces. Physics of Fluids, 2006, 18, 042111.	4.0	29
100	Thermoconvective instabilities of nematic liquid layers : new theoretical predictions. Journal De Physique, 1979, 40, 725-731.	1.8	29
101	On the parametric excitation of electrothermal instability in a dielectric liquid layer using an alternating electric field. Journal of Electrostatics, 2001, 50, 205-226.	1.9	28
102	Thermo- and soluto-capillarity: Passive and active drops. Advances in Colloid and Interface Science, 2017, 247, 52-80.	14.7	28
103	Strain solitary waves in an elastic rod embedded in another elastic external medium with sliding. Physical Review E, 1998, 58, 3854-3864.	2.1	27
104	Elements for a general memory structure: properties of recurrent neural networks used to form situation models. Biological Cybernetics, 2008, 98, 371-395.	1.3	27
105	Dynamics of coupled gap solitons in diatomic lattices with cubic and quartic nonlinearities. Physical Review E, 2000, 62, 2827-2839.	2.1	26
106	Thermodynamics and phase transitions in dissipative and active Morse chains. European Physical Journal B, 2005, 44, 509-519.	1.5	26
107	Compounds of paired electrons and lattice solitons moving with supersonic velocity. Physical Review E, 2008, 78, 066606.	2.1	26
108	Electron pairing and Coulomb repulsion in one-dimensional anharmonic lattices. Physical Review B, 2012, 85, .	3.2	26

#	Article	IF	Citations
109	Active Drops and Drop Motions due to Nonequilibrium Phenomena. Journal of Non-Equilibrium Thermodynamics, 1994, 19, .	4.2	25
110	Stability switches, oscillatory multistability, and spatio-temporal patterns of nonlinear oscillations in recurrently delay coupled neural networks. Biological Cybernetics, 2009, 101, 147-167.	1.3	25
111	Controlling fast electron transfer at the nano-scale by solitonic excitations along crystallographic axes. European Physical Journal B, 2012, 85, 1.	1.5	25
112	Discrete breathers in 2D and 3D crystals. Physica Status Solidi (B): Basic Research, 2015, 252, 1682-1686.	1.5	25
113	A nonlinear evolution equation for BÃ©nard-Marangoni convection with deformable boundary. Physics Letters, Section A: General, Atomic and Solid State Physics, 1987, 122, 107-110.	2.1	23
114	Waves and Turbulence at Interfaces. Physica Scripta, 1989, T25, 231-237.	2.5	23
115	Two-layer BÃ©nard-Marangoni instability and the limit of transverse and longitudinal waves. Physical Review E, 1998, 57, 2872-2884.	2.1	23
116	Compact internal representation of dynamic situations: neural network implementing the causality principle. Biological Cybernetics, 2010, 103, 285-297.	1.3	23
117	Singular perturbations approach to the limit cycle and global patterns in a nonlinear diffusionâ€reaction problem with autocatalysis and saturation law. Journal of Mathematical Physics, 1979, 20, 2692-2703.	1.1	22
118	Laser with saturable absorber and two-component benard convection: Limit cycle behaviour. Physics Letters, Section A: General, Atomic and Solid State Physics, 1980, 80, 220-222.	2.1	22
119	Thermodynamic and stochastic theory of transport processes far from equilibrium. The Journal of Physical Chemistry, 1992, 96, 11054-11065.	2.9	22
120	Cnoidal wave trains and solitary waves in a dissipation-modified Korteweg-de Vries equation. Acta Applicandae Mathematicae, 1995, 39, 457-475.	1.0	22
121	FURTHER RESULTS ON THE EVOLUTION OF SOLITARY WAVES AND THEIR BOUND STATES OF A DISSIPATIVE KORTEWEG-DE VRIES EQUATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1995, 05, 831-839.	1.7	22
122	Dispersiveâ€“dissipative solitons in nonlinear solids. Wave Motion, 2000, 31, 197-207.	2.0	22
123	Synchronization, re-entry, and failure of spiral waves in a two-layer discrete excitable system. Physical Review E, 2000, 63, 016212.	2.1	22
124	Localized nonlinear, soliton-like waves in two-dimensional anharmonic lattices. Wave Motion, 2011, 48, 753-760.	2.0	22
125	Further evidence of a phase transition induced by external noise. Physics Letters, Section A: General, Atomic and Solid State Physics, 1978, 69, 304-306.	2.1	21
126	Long time data series and diffuculties with the characterization of chaotic attractors: a case with intermittency III. Chaos, Solitons and Fractals, 1994, 4, 2169-2179.	5.1	21

#	Article	IF	Citations
127	On the parametric excitation of thermoelectric instability in a liquid layer open to air. International Journal of Heat and Mass Transfer, 1999, 42, 3159-3168.	4.8	21
128	Interfacial Wave Motions Due to Marangoni Instability. Journal of Colloid and Interface Science, 1999, 212, 365-383.	9.4	21
129	Internal waves excited by the Marangoni effect. Physical Review E, 2000, 62, 6522-6530.	2.1	21
130	Interfacial Wave Motions Due to Marangoni Instability. Journal of Colloid and Interface Science, 2001, 236, 214-224.	9.4	21
131	Falling films and the Marangoni effect. Physical Review E, 2004, 69, 056310.	2.1	21
132	On the Various Wave Motions Observed at a Liquid Interface Due to Marangoni Stresses and Instability. Industrial & Engineering Chemistry Research, 2005, 44, 1396-1412.	3.7	21
133	SOLITON-MEDIATED ELECTRON PAIRING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 885-890.	1.7	21
134	On the electron transport in polydiacetylene crystals and derivatives. Europhysics Letters, 2014, 106, 27004.	2.0	21
135	Highly Enhanced Transport by Supersonic Nâ€€rowdions. Physica Status Solidi - Rapid Research Letters, 2017, 11, 1700298.	2.4	21
136	On the validity of Gibbs' entropy law in strongly coupled systems. Physica, 1969, 43, 263-276.	0.9	20
137	The role of soret and dufour effects on the stability of a binary gas layer heated from below or above. Geophysical and Astrophysical Fluid Dynamics, 1979, 13, 83-94.	1.2	20
138	Marangoni convection in liquid films with a deformable open surface. Journal of Colloid and Interface Science, 1985, 108, 264-270.	9.4	20
139	The harmonic oscillator approach to sustained gravity-capillary (Laplace) waves at liquid interfaces. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 131, 430-432.	2.1	20
140	On localized solutions of an equation governing Benard-Marangoni convection. Applied Mathematical Modelling, 1993, 17, 311-320.	4.2	20
141	Laboratory evidence of three-dimensional frequency downshift of waves in a long tank. Physics of Fluids, 1999, 11, 235-237.	4.0	20
142	Localized finite-amplitude disturbances and selection of solitary waves. Physical Review E, 2000, 62, 4959-4962.	2.1	20
143	Spreading of aqueous SDS solutions over nitrocellulose membranes. Journal of Colloid and Interface Science, 2003, 264, 481-489.	9.4	20
144	Anharmonic Excitations, Time Correlations and Electric Conductivity. Contributions To Plasma Physics, 2007, 47, 465-478.	1.1	20

#	Article	IF	Citations
145	ELECTRON TRAPPING BY SOLITONS: CLASSICAL VERSUS QUANTUM MECHANICAL APPROACH. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 521-526.	1.7	20
146	Phase transition picture of the soret-driven convective instability in a two-component liquid layer heated from below. Physics Letters, Section A: General, Atomic and Solid State Physics, 1979, 72, 123-127.	2.1	19
147	A prototype Helmholtzâ€“Thompson nonlinear oscillator. Review of Scientific Instruments, 1992, 63, 4208-4212.	1.3	19
148	Synchronous chaotic behaviour of a response oscillator with chaotic driving. Chaos, Solitons and Fractals, 1994, 4, 201-211.	5.1	19
149	Faraday Ripples, Parametric Resonance, and the Marangoni Effect. Journal of Colloid and Interface Science, 2001, 238, 16-23.	9.4	19
150	Strain kinks in an elastic rod embedded in a viscoelastic medium. Wave Motion, 2002, 35, 189-204.	2.0	19
151	Anharmonicity and its significance to non-Ohmic electric conduction. Physical Review E, 2006, 73, 066626.	2.1	19
152	The winnerless competition paradigm in cellular nonlinear networks: Models and applications. International Journal of Circuit Theory and Applications, 2009, 37, 505-528.	2.0	19
153	On the possibility that local mechanical forcing permits directionally-controlled long-range electron transfer along DNA-like molecular wires with no need of an external electric field. European Physical Journal B, 2016, 89, 1.	1.5	19
154	Electrothermoconvective instability of an ohmic liquid layer in an unsteady electric field. Journal of Electrostatics, 2000, 48, 261-277.	1.9	18
155	On the Spreading of Partially Miscible Liquids. Journal of Colloid and Interface Science, 2001, 234, 375-383.	9.4	18
156	Head-on and head-off collisions of discrete breathers in two-dimensional anharmonic crystal lattices. European Physical Journal B, 2014, 87, 1.	1.5	18
157	Non-analytic density expansion of transport coefficients in the quantum Lorentz gas and weak-coupling appriximation. Physica, 1971, 51, 541-560.	0.9	17
158	Multiple steady states in a simple reactionâ€“diffusion model with Michaelisâ€“Menten (firstâ€•order) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Journal of Mathematical Physics, 1978, 19, 151-156.	1.1	17
159	GAP SOLITONS, RESONANT KINKS, AND INTRINSIC LOCALIZED MODES IN PARAMETRICALLY EXCITED DIATOMIC LATTICES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 1775-1787.	1.7	17
160	Mode transitions and wave propagation in a driven-dissipative Toda-Rayleigh ring. Physical Review E, 2003, 67, 056208.	2.1	17
161	Hydrochemical stability of an interface between two immiscible liquids : the role of Langmuir-Hinshelwood saturation law. Journal De Physique, 1977, 38, 1479-1483.	1.8	17
162	Time-periodic oscillations in a model for the respiratory process of a bacterial culture. Journal of Mathematical Biology, 1979, 8, 147-157.	1.9	16

#	Article	IF	Citations
163	SPATIAL DISORDER AND WAVES IN A RING CHAIN OF BISTABLE OSCILLATORS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 1845-1858.	1.7	16
164	Mutual synchronization of two lattices of bistable elements. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 236, 505-512.	2.1	16
165	On the back-firing instability. Chaos, 2004, 14, 777-783.	2.5	16
166	Discrete-breather-assisted charge transport along DNA-like molecular wires. Physical Review E, 2019, 100, 052203.	2.1	16
167	Onset of possible solitons in surface tension-driven convection. Physica Scripta, 1991, T35, 71-74.	2.5	15
168	On dynamic excitation of Marangoni instability. Physics of Fluids A, Fluid Dynamics, 1992, 4, 2394-2398.	1.6	15
169	On the Development of Translational Subcritical Marangoni Instability for a Drop with Uniform Internal Heat Generation. Journal of Colloid and Interface Science, 1994, 164, 168-180.	9.4	15
170	Evolution and interactions of solitary waves (solitons) in nonlinear dissipative systems. Physica Scripta, 1994, T55, 101-106.	2.5	15
171	The role of timeâ€varying gravity on the motion of a drop induced by Marangoni instability. Physics of Fluids, 1995, 7, 2670-2678.	4.0	15
172	Cylindrical solitary waves and their interaction in BÃ©nard-Marangoni layers. Physical Review E, 1998, 57, 5473-5482.	2.1	15
173	NUMERICAL EVIDENCE OF SOLITON-MEDIATED ELECTRON PAIRING IN HEATED ANHARMONIC CRYSTAL LATTICES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2011, 21, 1595-1600.	1.7	15
174	From solitons to discrete breathers. European Physical Journal B, 2016, 89, 1.	1.5	15
175	Limit cycle in a bound exciton recombination model in non-equilibrium semiconductors. Journal of Physics and Chemistry of Solids, 1981, 42, 873-881.	4.0	14
176	Internal Solitary Waves. Studies in Applied Mathematics, 1992, 86, 167-184.	2.4	14
177	Toward a thermodynamic theory of hydrodynamics: The Lorenz equations. Physics of Fluids, 1994, 6, 550-563.	4.0	14
178	Controlled disordered patterns and information transfer between coupled neural lattices with oscillatory states. Physical Review E, 1998, 57, 3344-3351.	2.1	14
179	ON THE MATHEMATICAL MODELING OF SOLITON-MEDIATED LONG-RANGE ELECTRON TRANSFER. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 185-194.	1.7	14
180	Hopping Transport and Stochastic Dynamics of Electrons in Plasma Layers. Contributions To Plasma Physics, 2011, 51, 814-829.	1.1	14

#	Article	IF	Citations
181	Nonlinear soliton-like excitations in two-dimensional lattices and charge transport. European Physical Journal: Special Topics, 2013, 222, 2531-2546.	2.6	14
182	High electrical conductivity in nonlinear model lattice crystals mediated by thermal excitation of solectrons. European Physical Journal B, 2014, 87, 1.	1.5	14
183	On the autonomous motion of active drops or bubbles. Journal of Colloid and Interface Science, 2018, 527, 180-186.	9.4	14
184	Wave number selection in convection and related problems. Physical Review E, 1994, 50, 1194-1197.	2.1	13
185	Electron pairing in oneâ€dimensional anharmonic crystal lattices. International Journal of Quantum Chemistry, 2012, 112, 551-565.	2.0	13
186	Limit cycle and dissipative structures in a sample bimolecular nonequilibrium reactional scheme with enzyme. Physics Letters, Section A: General, Atomic and Solid State Physics, 1976, 58, 364-366.	2.1	12
187	Drop motion with surfactant transfer in an inhomogeneous medium. International Journal of Heat and Mass Transfer, 1994, 37, 361-374.	4.8	12
188	Solitary waves of permanent form in a deep fluid with weak shear. Physics of Fluids, 1995, 7, 1357-1362.	4.0	12
189	The emergence of form by replication. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 5024-5027.	7.1	12
190	On the Interfacial Deformation of a Magnetic Liquid Drop under the Simultaneous Action of Electric and Magnetic Fields. Journal of Colloid and Interface Science, 2001, 235, 46-58.	9.4	12
191	Nonlinear Ionic Excitations, Dynamic Bound States, and Nonlinear Currents in a One-dimensional Plasma. Contributions To Plasma Physics, 2005, 45, 275-283.	1.1	12
192	Thermal solitons and solectrons in nonlinear conducting chains. International Journal of Quantum Chemistry, 2010, 110, 46-61.	2.0	12
193	On the temperature dependence of fast electron transport in crystal lattices. European Physical Journal B, 2015, 88, 1.	1.5	12
194	The role of convection in the transient hot wire method. Revue De Physique AppliquÃ©e, 1977, 12, 1849-1854.	0.4	12
195	Phase diagrams of a laser with absorber. Optics Communications, 1981, 38, 61-63.	2.1	11
196	Dissipative hydrodynamic oscillators. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1989, 11, 1631-1643.	0.4	11
197	Homoclinic orbits and solitary waves in a one-dimensional array of Chua's circuits. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 1995, 42, 785-801.	0.1	11
198	Drop motions and interfacial instability. Journal of Physics Condensed Matter, 1996, 8, 9233-9247.	1.8	11

#	Article	IF	Citations
199	Pattern interaction and spiral waves in a two-layer system of excitable units. Physical Review E, 1998, 58, 1764-1773.	2.1	11
200	Synchronization in two-layer bistable coupled map lattices. Physica D: Nonlinear Phenomena, 2001, 151, 1-26.	2.8	11
201	Soliton assisted control of source to drain electron transport along natural channels â€“ crystallographic axes â€“ in two-dimensional triangular crystal lattices. European Physical Journal B, 2016, 89, 1.	1.5	11
202	Stability analysis of dissipative structures in a nonlinear diffusion-reaction problem. Physical Review A, 1978, 18, 750-755.	2.5	10
203	Thermal diffusion and convective stability: The role of uniform rotation of the container. Physics of Fluids, 1979, 22, 1038.	1.4	10
204	Strange Attractor (Optical Turbulence) in a Model Problem for the Laser with Saturable Absorber and the Two-Component Benard Convection. Progress of Theoretical Physics, 1981, 66, 717-720.	2.0	10
205	Role of multiplicative non-white noise in a surface-catalyzed reaction with oscillations. Surface Science, 1984, 143, 1-10.	1.9	10
206	Dissipative hydrodynamic oscillators. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1989, 11, 709-716.	0.4	10
207	TRAVELLING WAVES IN A CIRCULAR ARRAY OF CHUAâ€™S CIRCUITS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 473-484.	1.7	10
208	Gap solitons and resonant kinks in Heisenberg ferromagnetic chains with bond alternation. Physical Review B, 1997, 55, 336-346.	3.2	10
209	The nonlinear SchrÃ¶dinger method for water wave kinematics on finite depth. Wave Motion, 2001, 33, 379-395.	2.0	10
210	On the Accuracy of Measuring Small Contact Angles by the Sessile Drop Method. Colloid Journal, 2003, 65, 611-614.	1.3	10
211	Solitons as dissipative structures. International Journal of Quantum Chemistry, 2004, 98, 272-280.	2.0	10
212	Clustering behavior in a three-layer system mimicking olivo-cerebellar dynamics. Neural Networks, 2004, 17, 191-203.	5.9	10
213	Asymptotic Study of Rayleighâ€“BÃ©nard Convection under Time Periodic Heating in Heleâ€“Shaw Cell. Physica Scripta, 2005, 71, 395-401.	2.5	10
214	Quartic lattice interactions, solitonâ€like excitations, and electron pairing in oneâ€dimensional anharmonic crystals. International Journal of Quantum Chemistry, 2012, 112, 2591-2598.	2.0	10
215	Stability diagram and nonlinear structures in a simple reaction scheme involving inhibition forward. Physics Letters, Section A: General, Atomic and Solid State Physics, 1976, 59, 335-337.	2.1	9
216	Dissipative Structures in a Nonlinear Reaction-Diffusion Model with Inhibition Forward: Global Nonuniform Steady Patterns, Spatio-Temporal Structures and Wave-Like Phenomena. Progress of Theoretical Physics, 1979, 61, 801-814.	2.0	9

#	Article	IF	Citations
217	Localized nonuniform patterns in a diffusion-reaction model with autocatalysis and the Langmuirâ€“Hinshelwood saturation law. Journal of Mathematical Physics, 1980, 21, 2586.	1.1	9
218	Two-component benard convection in cylinders. International Journal of Heat and Mass Transfer, 1982, 25, 1451-1456.	4.8	9
219	Clustering and phase resetting in a chain of bistable nonisochronous oscillators. Physical Review E, 1998, 58, 5742-5747.	2.1	9
220	Rheological behaviour of solutions of poly(2-hydroxyethyl methacrylamide) in glycerine. Polymer, 2001, 42, 7395-7401.	3.8	9
221	Mobile localized solutions for an electron in lattices with dispersive and non-dispersive phonons. Physica D: Nonlinear Phenomena, 2015, 306, 82-93.	2.8	9
222	Evaporation of Sessile Droplets of Polyelectrolyte/Surfactant Mixtures on Silicon Wafers. Colloids and Interfaces, 2021, 5, 12.	2.1	9
223	Steady States, Limit Cycles and the Onset of Turbulence. A few Model Calculations and Exercises. , 1982, , 205-247.		9
224	Multiple steady states for the Degn-Harrison reaction scheme of a bacterial culture. Zeitschrift FÃ¼r Physik B Condensed Matter and Quanta, 1978, 31, 111-116.	1.9	8
225	BÃ©nard-Marangoni convection in liquid layers with a deformable open surface: Note on the role of solute accumulation at the air-liquid interface. Journal of Colloid and Interface Science, 1989, 127, 205-208.	9.4	8
226	Marangoni-BÃ©nard instability of a floating liquid layer with an internal, permeable, heated or cooled divider and two deformable open surfaces. International Journal of Heat and Mass Transfer, 1995, 38, 2723-2731.	4.8	8
227	NUMERICAL STUDY OF PATTERNS AND THEIR EVOLUTION IN FINITE GEOMETRIES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 1883-1890.	1.7	8
228	Clusters in an assembly of globally coupled bistable oscillators. European Physical Journal B, 1999, 9, 533-543.	1.5	8
229	Properties of surface wave trains excited by mass transfer through a liquid surface. Physical Review E, 2001, 64, 022601.	2.1	8
230	High Conductivity Mediated by Thermal Excitation of Solectrons. Contributions To Plasma Physics, 2013, 53, 736-743.	1.1	8
231	Benard Convection and Laser with Saturable Absorber. Oscillations and Chaos. Springer Series in Synergetics, 1982, , 132-145.	0.4	8
232	Oscillatory Instability and High-Frequency Wave Modes in a Marangoni-Bï¿½nard Layer with Deformable Free Surface. Journal of Non-Equilibrium Thermodynamics, 2001, 25, 381-405.	4.2	8
233	Dissipative structures and oscillations in reaction-diffusion models with or without time-delay. , 1982, , 248-278.		7
234	Dissipative hydrodynamic oscillators. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1989, 11, 1615-1629.	0.4	7

#	Article	IF	Citations
235	Nonlinear transverse oscillatory motions at the open surface of a liquid layer subjected to the marangoni effect. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 136, 126-130.	2.1	7
236	Dissipative hydrodynamic oscillators. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1991, 13, 913-918.	0.4	7
237	Marangoni-BÃ©nard convective instability driven by a heated divider. International Journal of Heat and Mass Transfer, 1994, 37, 493-498.	4.8	7
238	Oblique interactions of dark spatial solitons in self-defocusing media. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 2850.	2.1	7
239	Dynamic Contact Angles of Water in Ultrathin Capillaries. Colloid Journal, 2001, 63, 119-123.	1.3	7
240	Spreading of liquid drops from a liquid source. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 282-283, 247-255.	4.7	7
241	Dissipative solitons, wave asymmetry and dynamical ratchets. Physica A: Statistical Mechanics and Its Applications, 2007, 377, 435-447.	2.6	7
242	Nonlinear dynamics and the nano-mechanical control of electrons in crystalline solids. European Physical Journal: Special Topics, 2016, 225, 921-941.	2.6	7
243	Excitation of solitons in hexagonal lattices and ways of controlling electron transport. International Journal of Dynamics and Control, 2018, 6, 1376-1383.	2.5	7
244	Fluctuating hydrodynamics and Brownian motion. II. Note on the slip boundary condition. Journal of Statistical Physics, 1974, 10, 103-105.	1.2	6
245	The cumulant expansion in renormalization group transformations: the convergence question and the dependence upon cell size. Journal of Physics A, 1976, 9, 1713-1717.	1.6	6
246	Electrothermal Convection: Felici's Hydraulic Model and the Landau Picture of Non-Equilibrium Phase Transitions. Journal of Non-Equilibrium Thermodynamics, 1984, 9, .	4.2	6
247	Solitary waves driven by Marangoni stresses. Advances in Space Research, 1993, 13, 109-117.	2.6	6
248	Drop motion and the Maragoni effect. Interaction of modes. Physica Scripta, 1994, T55, 115-118.	2.5	6
249	Pulses, Fronts and Chaotic Wave Trains in a One-Dimensional Chua's Lattice. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1997, 07, 1775-1790.	1.7	6
250	A Simple Generalized Excitability Model Mimicking Salient Features of Neuron Dynamics. Journal of Statistical Physics, 2000, 101, 665-678.	1.2	6
251	Phenomenological phase transition approach to the two-component Rayleigh-BÃ©nard problem: Tricritical behavior. Journal of Statistical Physics, 1981, 24, 235-241.	1.2	5
252	Dissipative hydrodynamic oscillators. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1989, 11, 727-737.	0.4	5

#	Article	IF	Citations
253	Laser induced crossedâ€beam charge transfer: Collision energy effects of the Na(3â€‰2P3/2,1/2)+I2â†'Na++Iâ^'2system. Journal of Chemical Physics, 1991, 95, 5474-5475.	3.0	5
254	ON AUTOMATED DERIVATION OF AMPLITUDE EQUATIONS IN NONLINEAR BIFURCATION PROBLEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 2163-2167.	1.7	5
255	Soliton-mediated compression density waves and charge density in 2d layers of underdoped cuprate-like lattices. Comptes Rendus - Mecanique, 2012, 340, 910-916.	2.1	5
256	Long-Range Electron Transport Donor-Acceptor in Nonlinear Lattices. Entropy, 2016, 18, 92.	2.2	5
257	About electron transfer over long distances with tunable sub/supersonic velocities. Journal of Chemical Physics, 2020, 153, 044117.	3.0	5
258	Nonlinear waves in stably stratified dissipative mediaâ€"solitary waves and turbulent bursts. Physica Scripta, 1994, T55, 111-114.	2.5	5
259	On the domain of validity of Gibbs' entropy law. Physics Letters, Section A: General, Atomic and Solid State Physics, 1968, 26, 584-585.	2.1	4
260	Soret-driven convective instability with rotation. Physics Letters, Section A: General, Atomic and Solid State Physics, 1978, 65, 377-379.	2.1	4
261	Melnikov's criterion and its experimental test using a nonlinear oscillator. Chaos, Solitons and Fractals, 1994, 4, 255-262.	5.1	4
262	PATTERNS, DEFECTS, AND EVOLUTION OF BÃ‰NARDâ€"MARANGONI CELLS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 1665-1671.	1.7	4
263	Image transfer in multilayered assemblies of lattices of bistable oscillators. Physical Review E, 1999, 59, 4515-4522.	2.1	4
264	Strong dispersive effects on internal nonlinear waves in a sheared, stably stratified fluid layer. Wave Motion, 1999, 30, 159-173.	2.0	4
265	Wave propagation along interacting fiber-like lattices. European Physical Journal B, 1999, 11, 677-685.	1.5	4
266	EXPERIMENTAL EVIDENCE ON THE STRUCTURE AND EVOLUTION OF THE PENTAâ€"HEPTA DEFECT IN HEXAGONAL LATTICES DUE TO BÃ‰NARDâ€"MARANGONI CONVECTION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 1261-1273.	1.7	4
267	The WLC principle for action-oriented perception. , 2007, , .		4
268	Evaporation of Sessile Water Droplets in Presence of Contact Angle Hysteresis. Mathematical Modelling of Natural Phenomena, 2012, 7, 82-98.	2.4	4
269	Collisions of quasi-one-dimensional solitons in triangular Morse lattice. Letters on Materials, 2016, 6, 82-85.	0.7	4
270	Diffusion, reaction and convection at an interface: A few aspects of the stability problem. , 1979, , 260-275.		3

#	Article	IF	Citations
271	Mass-diffusion and boundary effects in Soret-driven convective instability. Physics of Fluids, 1980, 23, 402.	1.4	3
272	A solar pond for Central Spain. Solar Energy, 1985, 34, 179-180.	6.1	3
273	Comment on â€˜â€˜Some properties of an eight-mode Lorenz model for convection in binary fluidsâ€™â€™. Physical Review A, 1988, 37, 1381-1382.	2.5	3
274	Note on the Stability of Limit Cycles of an Asymmetric (Helmholtz-Thompson) Non-Linear Oscillator. Journal of Sound and Vibration, 1994, 172, 283-288.	3.9	3
275	Universal spatiotemporal scaling in the dynamics of one-dimensional pattern selection. Physical Review E, 1995, 51, 5132-5135.	2.1	3
276	A centre manifold approach to solitary waves in a sheared, stably stratified fluid layer. Nonlinear Processes in Geophysics, 1996, 3, 110-114.	1.3	3
277	Ilya Priogogine and the classical thermodynamics of irreversible processes. Journal of Non-Equilibrium Thermodynamics, 2004, 29, 1-8.	4.2	3
278	Analogies between colored LÃ©vy noise and random channel approach to disordered kinetics. Journal of Mathematical Physics, 2004, 45, 736-760.	1.1	3
279	Convective instability of an Ohmic liquid layer in an unsteady thermal field. Physics of Fluids, 2008, 20, .	4.0	3
280	Electron Dynamics in Tightâ€Binding Approximation â€•the Influence of Thermal Anharmonic Lattice Excitations. Contributions To Plasma Physics, 2009, 49, 529-535.	1.1	3
281	A few preliminary remarks, quotations and some references. European Physical Journal: Special Topics, 2011, 197, 3-9.	2.6	3
282	Wave motions along lattices with nonlinear on-site and inter-site potentials. Cooperation and/or competition leading to lattice solitons and/or discrete breathers. Proceedings of the Estonian Academy of Sciences, 2015, 64, 396.	1.5	3
283	Nonlinear excitations and bound states of electrons, holes and solitons in bilayers of triangular lattices. European Physical Journal B, 2019, 92, 1.	1.5	3
284	Theory of hydrodynamic instabilities. , 1979, , 309-319.		3
285	Towards a Theory of Degenerated Solectrons in Doped Lattices: Problems and Perspectives. Understanding Complex Systems, 2013, , 443-466.	0.6	3
286	Anharmonicity and Soliton-Mediated Transport: Thermal Solitons, Solectrons and Electric Transport in Nonlinear Conducting Lattices. NATO Science for Peace and Security Series A: Chemistry and Biology, 2009, , 171-198.	0.5	3
287	A Prototype 2N-Legged (insect-like) Robot. A Non-Linear Dynamical System Approach. Cognitive Systems Monographs, 2014, , 123-149.	0.1	3
288	Nonlinear Reaction-Diffusion on a Sphere: a Simple Autocatalytic Model with Michaelis-Menten (First-Order Hinshelwood-Langmuir) Saturation Law. Journal of Non-Equilibrium Thermodynamics, 1978, 3, .	4.2	2

#	Article	IF	Citations
289	Natural Versus Forced Convection in the Two-Component BÃ©nard Problem: New Theoretical Results. Journal of Non-Equilibrium Thermodynamics, 1981, 6, .	4.2	2
290	A Model Describing Soret Diffusion and Convective Instability in a Closed Vertical Column. Journal of Non-Equilibrium Thermodynamics, 1982, 7, .	4.2	2
291	Thermohydrodynamic Instabilities: Buoyancy-Thermocapillary Convection. NATO ASI Series Series B: Physics, 1984, , 179-196.	0.2	2
292	Thermoconvective Instability of a Rotating Viscoelastic Fluid Layer Heated from Below. Journal of Non-Equilibrium Thermodynamics, 1985, 10, .	4.2	2
293	On the possibility of wave-induced chaos in a sheared, stably stratified fluid layer. Nonlinear Processes in Geophysics, 1994, 1, 219-223.	1.3	2
294	On nonlinear waves in an elastic solid. Comptes Rendus De L'Academie De Sciences - Serie IIb: Mecanique, Physique, Chimie, Astronomie, 2000, 328, 165-170.	0.1	2
295	Spike-burst and other oscillations in a system composed of two coupled, drastically different elements. European Physical Journal B, 2000, 16, 147-155.	1.5	2
296	Spatio-temporal patterns in CNNs for classification: the winnerless competition principle. , 2006, , .		2
297	Compact internal representation as a protocognitive scheme for robots in dynamic environments. , 2011, , .		2
298	Electron Transport Mediated by Nonlinear Excitations in Atomic Layers. Contributions To Plasma Physics, 2013, 53, 355-359.	1.1	2
299	Control of electron and electronâ€“hole pair dynamics on nonlinear lattice bilayers by strong solitons. Chaos, 2021, 31, 083123.	2.5	2
300	Localized Structures and Solitary Waves Excited by Interfacial Stresses. , 1991, , 263-272.		2
301	BÃ©nard Layers, Overstability, and Waves. Springer Tracts in Modern Physics, 2006, , 129-145.	0.1	2
302	Spreading and Evaporation of Surfactant Solution Droplets. , 2012, , 1-6.		2
303	Marangoni Effect, Instabilities and Waves at Interfaces. NATO ASI Series Series B: Physics, 1989, , 139-143.	0.2	2
304	Intrinsic electronic noise strength significantly alters a period doubling cascade to chaos. Chaos, 2021, 31, 113102.	2.5	2
305	Comments on ``Cluster expansion and autocorrelation functions: Selfâ€diffusion coefficient''. Journal of Chemical Physics, 1973, 59, 2166-2167.	3.0	1
306	Free surface convection in a bounded cylindrical geometry: note on the role of surface adsorption and solute accumulation at the air-liquid interface. International Journal of Heat and Mass Transfer, 1988, 31, 1979-1982.	4.8	1

#	Article	IF	Citations
307	Toward a non-equilibrium non-linear thermodynamics. , 1996, , 253-267.		1
308	AVALANCHE-COLLAPSE MECHANISM: A MODEL FOR EXCITABILITY. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 1873-1881.	1.7	1
309	Creation and Extinction of Cells in BÃ©nard Convection. Journal of Non-Equilibrium Thermodynamics, 1997, 22, .	4.2	1
310	On second harmonic generation and the onset of simultaneous capillary-gravity solitary waves (simultons or quadratic solitons). Comptes Rendus Mecanique, 2001, 329, 13-18.	0.2	1
311	Chaos and Hyperchaos in a Model of the Belousov-Zhabotinsky Reaction in a Batch Reactor. Journal of Non-Equilibrium Thermodynamics, 2001, 25, .	4.2	1
312	PHASE RESETTING, CLUSTERS, AND WAVES IN A LATTICE OF COUPLED OSCILLATORY UNITS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 109-122.	1.7	1
313	Electric field effects on the stability of a thermogravitational flow in a vertical capacitor. Journal of Electrostatics, 2002, 56, 493-513.	1.9	1
314	Stability of a Falling Liquid Film with a Non-Equilibrium Adsorbed Sublayer of Soluble Surfactant. Fluid Dynamics, 2003, 38, 679-691.	0.9	1
315	Spreading dynamics: a succinct account of some basic questions. Microgravity Science and Technology, 2006, 18, 21-24.	1.4	1
316	Sensory-motor neural loop discovering statistical dependences among imperfect sensory perception and motor response. , 2007, , .		1
317	Honorary note. Advances in Colloid and Interface Science, 2007, 134-135, 1-2.	14.7	1
318	Computer Simulations of Quasi-Steady Evaporation of Sessile Liquid Droplets. , 2011, , 115-120.		1
319	Evaporation of Sessile Droplets of Liquid on Solid Substrates. Understanding Complex Systems, 2013, , 285-300.	0.6	1
320	Bound States of Electrons in Harmonic and Anharmonic Crystal Lattices. Springer Series in Materials Science, 2015, , 291-319.	0.6	1
321	Interaction dynamics in small networks of nonlinear elements. Communications in Nonlinear Science and Numerical Simulation, 2015, 20, 807-818.	3.3	1
322	PATTERNS AND DISSIPATIVE WAVES, INCLUDING SOLITONS, IN LATTICES AND AT INTERFACES. , 2006, , 343-354.		1
323	Electron Transfer and Tunneling from Donor to Acceptor in Anharmonic Crystal Lattices. Springer Series in Materials Science, 2015, , 267-289.	0.6	1
324	Solitons and Charge Transport in Triangular and Quadratic Crystal Lattices. Springer Series in Materials Science, 2015, , 321-339.	0.6	1

#	Article	IF	Citations
325	Mathematical Approach to Sensory Motor Control and Memory. Cognitive Systems Monographs, 2009, , 219-268.	0.1	1
326	Evaporation of Pinned Sessile Microdroplets of Water: Computer Simulations. , 2012, , 79-84.		1
327	ANHARMONICITY AND SOLITON-MEDIATED ELECTRIC TRANSPORT: IS A KIND OF SUPERCONDUCTION POSSIBLE AT ROOM TEMPERATURE?. World Scientific Series on Nonlinear Science, Series B, 2010, , 8-13.	0.2	1
328	Dissipative Effects on the Evolution of Internal Solitary Waves in a Sheared, Stably Stratified Fluid Layer. , 2002, , 203-222.		1
329	The Harmonic Oscillator Description of Longitudinal (Marangoni-Lucassen) Waves at Liquid Interfaces. NATO ASI Series Series B: Physics, 1988, , 183-187.	0.2	1
330	Marangoni-driven solitary waves. Lecture Notes in Physics, 1991, , 261-267.	0.7	1
331	The spruce budwormâ€forest ecosystem: A fortyâ€year limit cycle. Journal of Interdisciplinary Cycle Research, 1982, 13, 313-316.	0.2	0
332	Two-component BÃ©nard convection: Interfacial deformation, oscillatory instabilities and the onset of turbulence. Advances in Space Research, 1983, 3, 23-30.	2.6	0
333	Phase Transition Analogies: Magnets, Lasers and Fluid Flows. NATO ASI Series Series B: Physics, 1984, , 25-35.	0.2	0
334	Electrothermal Instabilities in Dielectric Liquids. NATO ASI Series Series B: Physics, 1984, , 223-233.	0.2	0
335	White Versus Non-White Stochastic Environment of Intrinsically Stochastic Systems: A Computational Approach to the Evolutionary Problem. Journal of Non-Equilibrium Thermodynamics, 1985, 10, .	4.2	0
336	Space inhomogeneity and detuning effects in a laser with a saturable absorber:a first-order approximation. Journal of the Optical Society of America B: Optical Physics, 1988, 5, 1074.	2.1	0
337	Dissipative hydrodynamic oscillators. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1989, 11, 717-726.	0.4	0
338	Dissipative hydrodynamic oscillators. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1992, 14, 213-220.	0.4	0
339	PHYSICS EDUCATION: A SURVEY OF PROBLEMS AND POSSIBLE SOLUTIONS. International Journal of Modern Physics C, 1993, 04, 435-443.	1.7	0
340	Solitons in real fluids. Journal of Physics Condensed Matter, 1994, 6, A423-A426.	1.8	0
341	Nonuniform interfacial tension-driven fluid flows. , 1996, , 283-298.		0
342	Patterns, waves and chaos, and their replication in active lattices. Milan Journal of Mathematics, 1997, 67, 181-189.	0.1	0

#	Article	IF	Citations
343	Response to â€œComment on â€˜Exact periodic solutions of the complex Ginzburgâ€“Landau equationâ€™â€‰â€•[J. Math. Phys. 40, 5283 (1999)]. Journal of Mathematical Physics, 1999, 40, 5284-5284.	1.1	0
344	Spatiotemporal intermittency in the critical dynamics of dc-driven two-dimensional frustrated Josephson arrays. Physical Review B, 2001, 64, .	3.2	0
345	On the Role of Porosity in the Stokes Flow Around a Solid Particle. Journal of Non-Equilibrium Thermodynamics, 2001, 25, .	4.2	0
346	Oscillatory Instability and High-Frequency Wave Modes in a Marangoni-BÃ©nard Layer with Deformable Free Surface. Journal of Non-Equilibrium Thermodynamics, 2001, 25, .	4.2	0
347	Solitary Waves, Bound Soliton States and Chaotic Soliton Trains in a Dissipative Boussinesq-Korteweg-de Vries Equation. Springer Series in Synergetics, 2002, , 19-48.	0.4	0
348	Capillaryâ€“gravity simultons in a liquid layer. Journal of Fluid Mechanics, 2002, 466, 1-15.	3.4	0
349	Experimental behavior of a dissipative Toda-Rayleigh ring. AIP Conference Proceedings, 2002, , .	0.4	0
350	Experimental study of a noisy dissipative-driven ring lattice with Morse interactions. , 2003, , .		0
351	A Form of Active Brownian motor-like on a (nonlinear) Toda lattice. AIP Conference Proceedings, 2005, , .	0.4	0
352	Thermodynamics of the rupture in a Morse lattice. European Physical Journal B, 2010, 75, 443-450.	1.5	0
353	Flow and Heat Transfer: Formulation. Applied Mathematical Sciences (Switzerland), 2012, , 21-38.	0.8	0
354	Nonisothermal Case: Two- and Three-Dimensional Flow. Applied Mathematical Sciences (Switzerland), 2012, , 309-350.	0.8	0
355	Primary Instability. Applied Mathematical Sciences (Switzerland), 2012, , 39-64.	0.8	0
356	THERMAL SOLITONS IN 1D AND 2D ANHARMONIC LATTICES â€“ SOLECTRONS AND THE ORGANIZATION OF NON-LINEAR FLUCTUATIONS IN LONG-LIVING DYNAMICAL STRUCTURES. , 2013, , 458-465.		0
357	In honor to RamÃ³n G. Rubio on the occasion of his 65th birthday. Advances in Colloid and Interface Science, 2020, 282, 102202.	14.7	0
358	Nonlinear Waves and (Dissipative) Solitons in Thin Liquid Layers Subjected to Surfactant Gradients. Fluid Mechanics and Its Applications, 2000, , 57-67.	0.2	0
359	Mutual Synchronization, Control and Replication of Patterns and Waves in Coupled Lattices Composed of Bistable Units. Springer Series in Synergetics, 2002, , 227-278.	0.4	0
360	Benard Layers with Heat or Mass Transfer. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2002, , 89-121.	0.6	0

#	Article	IF	Citations
361	Introduction: Synergetics and Models of Continuous and Discrete Active Media. Steady States and Basic Motions (Waves, Dissipative Solitons, etc.). Springer Series in Synergetics, 2002, , 1-18.	0.4	0
362	Patterns, Spatial Disorder and Waves in a Dynamical Lattice of Bistable Units. Springer Series in Synergetics, 2002, , 165-226.	0.4	0
363	Methodologies for Low-Reynolds Number Flows. Applied Mathematical Sciences (Switzerland), 2012, , 95-144.	0.8	0
364	Open Questions and Suggestions for Further Research. Applied Mathematical Sciences (Switzerland), 2012, , 351-355.	0.8	0
365	Soliton-Mediated Electron Transfer and Electric Transport Arising from Coupling Electron Quantum Mechanics to Nonlinear Elasticity in Anharmonic Crystal Lattices. , 2013, , 47-62.		0
366	Compact Internal Representation of Dynamic Environments: Simple Memory Structures for Complex Situations. Cognitive Systems Monographs, 2014, , 83-100.	0.1	0
367	Two-Dimensional Anharmonic Crystal Lattices: Solitons, Solectrons, and Electric Conduction. Springer Proceedings in Physics, 2014, , 3-13.	0.2	0
368	The cumulant expansion in renormalization group transformations of ising models : cells with nine spins and anisotropic cell interactions. Journal De Physique, 1978, 39, 732-736.	1.8	0
369	Secondary Effects in Soret-Driven Instability. Springer Series in Synergetics, 1979, , 80-84.	0.4	0
370	Interfacial Instability in Binary Mixtures: The Role of the Interface and its Deformation. , 1984, , 223-232.		0
371	Thermohydrodynamic Instability in Nematic Liquid Crystals: A Summary of Arguments and Conditions for Some Simple Geometries. NATO ASI Series Series B: Physics, 1984, , 197-205.	0.2	0
372	Interfacial Instability in Fluid Layers Under Thermal Constraints. Springer Series in Synergetics, 1984, , 38-48.	0.4	0
373	Laser with Intracavity Absorber: Q-Switching, Multistable Nonlinear Oscillations and Chaos. NATO ASI Series Series B: Physics, 1984, , 103-115.	0.2	0
374	Sustained Gravity-Capillary (Laplace) Waves at Interfaces and Marangoni-Benard Instability. NATO ASI Series Series B: Physics, 1988, , 179-182.	0.2	0
375	Two-Component Benard Steady Convection with Surface Adsorption. NATO ASI Series Series B: Physics, 1988, , 343-357.	0.2	0
376	Interfacial Oscillations and Solitons Driven by the Marangoni Effect. NATO ASI Series Series B: Physics, 1990, , 159-167.	0.2	0
377	Interfacial Instabilities, Waves and Solitons Excited by the Marangoni Effect. NATO ASI Series Series B: Physics, 1991, , 435-449.	0.2	0
378	Solitons and other interfacial waves excited and sustained by capillarity. Lecture Notes in Physics, 1991, , 108-112.	0.7	0

#	Article	IF	Citations
379	1D And 2D Nonlinear Evolution Equations For BÃ©nard-Marangoni Convection. , 1993, , 213-223.		0
380	Surface Tension Gradient-Driven Wave Motion in Shallow Liquid Layers. Fluid Mechanics and Its Applications, 1996, , 191-206.	0.2	0
381	The Life and Legacy of G. I. Taylor. G. K. Batchelor. Isis, 1999, 90, 617-618.	0.5	0
382	Drops and Bubbles as Controlled Traveling Reactors and/or Carriers Including Microfluidics Aspects. Springer Proceedings in Physics, 2019, , 255-276.	0.2	0
383	Rayleigh-Benard convection of fluid layers: Some new theoretical results. , 1978, , 89-101.		0
384	Single and multi-vertices solitons in lattices of active Morse - van der Pol units. Communications in Nonlinear Science and Numerical Simulation, 2022, 114, 106678.	3.3	0