

# Discrete models for chemically reacting systems

Journal of Mathematical Chemistry

6, 113-163

DOI: [10.1007/bf01192578](https://doi.org/10.1007/bf01192578)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Varieties of spiral wave behavior: An experimentalist's approach to the theory of excitable media. <i>Chaos</i> , 1991, 1, 303-334.	1.0	456
2	Threshold-range scaling of excitable cellular automata. <i>Statistics and Computing</i> , 1991, 1, 23-39.	0.8	69
3	Coupled maps and pattern formation on the Sierpinski gasket. <i>Chaos</i> , 1992, 2, 329-335.	1.0	4
4	Coupled map lattice techniques for simulating interfacial phenomena in reaction-diffusion systems. <i>Chaos</i> , 1992, 2, 337-342.	1.0	9
5	Reactive dynamics in a multispecies lattice-gas automaton. <i>Journal of Chemical Physics</i> , 1992, 96, 2762-2776.	1.2	39
6	Catalytic CO oxidation on Pt surfaces: a lattice-gas cellular automaton model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1992, 188, 284-301.	1.2	38
7	Pattern formation in excitable media. <i>Physics Reports</i> , 1992, 218, 1-66.	10.3	390
8	Noise, chaos, and (H, I <sub>n</sub> )-entropy per unit time. <i>Physics Reports</i> , 1993, 235, 291-343.	10.3	188
9	Asymptotic Behavior of Excitable Cellular Automata. <i>Experimental Mathematics</i> , 1993, 2, 183-208.	0.5	26
10	Adaptive dynamics on a chaotic lattice. <i>Physical Review Letters</i> , 1993, 71, 2010-2013.	2.9	52
11	Unidirectional adaptive dynamics. <i>Physical Review E</i> , 1994, 49, 4832-4842.	0.8	47
12	Class of cellular automata for reaction-diffusion systems. <i>Physical Review E</i> , 1994, 49, 1749-1752.	0.8	42
13	Molecular dynamics simulations of a chemical wave front. <i>Physica D: Nonlinear Phenomena</i> , 1995, 84, 171-179.	1.3	12
14	Pattern formation in chemical systems. <i>Physica D: Nonlinear Phenomena</i> , 1995, 86, 149-157.	1.3	31
15	Adaptive dynamics on circle maps. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1995, 199, 365-374.	0.9	22
16	Scaling, propagation, and kinetic roughening of flame fronts in random media. <i>Journal of Statistical Physics</i> , 1995, 81, 737-759.	0.5	18
17	Renormalized equilibria of a Schlögl model lattice gas. <i>Journal of Statistical Physics</i> , 1995, 81, 295-317.	0.5	10
18	Chaotic meander of spiral waves in the FitzHugh-Nagumo system. <i>Chaos, Solitons and Fractals</i> , 1995, 5, 661-670.	2.5	40

#	ARTICLE	IF	CITATIONS
19	Smoluchowski approach for three-body reactions in one dimension. <i>Physical Review E</i> , 1995, 52, 5800-5805.	0.8	20
20	Surface structure and catalytic CO oxidation oscillations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1996, 229, 428-443.	1.2	36
21	Lattice gas automata for reactive systems. <i>Physics Reports</i> , 1996, 273, 55-147.	10.3	140
22	Geometric theory of trigger waves ? A dynamical system approach. <i>Journal of Mathematical Chemistry</i> , 1996, 19, 301-315.	0.7	13
23	Phase-field model for activated reaction fronts. <i>Physical Review B</i> , 1996, 53, 6263-6272.	1.1	14
24	Correspondence between discrete and continuous models of excitable media: Trigger waves. <i>Physical Review E</i> , 1997, 55, 3215-3233.	0.8	15
25	Lattice dynamical models of adaptive spatio-temporal phenomena. <i>Pramana - Journal of Physics</i> , 1997, 48, 287-302.	0.9	1
26	Dynamical stability and finite amplitude perturbations in coupled genetic networks. <i>Physica D: Nonlinear Phenomena</i> , 1997, 108, 379-396.	1.3	4
27	Traveling Waves in Lattice Dynamical Systems. <i>Journal of Differential Equations</i> , 1998, 149, 248-291.	1.1	281
28	Long transients dynamics in biochemical networks. <i>Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics</i> , 1998, 20, 91-102.	0.4	0
29	Coupled map lattices dynamics on a variable space for the study of development: A general discussion on <i>Caenorhabditis elegans</i> . <i>Theoretical Computer Science</i> , 1999, 217, 157-172.	0.5	4
30	NONLINEAR KINETICS AND NEW APPROACHES TO COMPLEX REACTION MECHANISMS. <i>Annual Review of Physical Chemistry</i> , 1999, 50, 51-78.	4.8	72
31	Planigon tessellation cellular automata. <i>Complexity</i> , 1999, 4, 31-38.	0.9	189
32	A Lattice Cellular Automata Model for Ion Diffusion in the Brain-Cell Microenvironment and Determination of Tortuosity and Volume Fraction. <i>SIAM Journal on Applied Mathematics</i> , 1999, 59, 2247-2273.	0.8	13
33	Master Equation and Molecular Dynamics Simulations of Spatiotemporal Effects in a Bistable Chemical System. <i>Journal of Physical Chemistry A</i> , 1999, 103, 3200-3209.	1.1	18
34	Discrete versus continual description of solid state reaction dynamics from the angle of meaningful simulation. <i>Discrete Dynamics in Nature and Society</i> , 2000, 4, 165-179.	0.5	5
35	Lyapunov Exponents and Synchronization of Cellular Automata. <i>Nonlinear Phenomena and Complex Systems</i> , 2001, , 69-103.	0.0	0
36	Monte Carlo model of oscillatory CO oxidation having regard to the change of catalytic properties due to the adsorbate-induced Pt(1 0 0) structural transformation. <i>Journal of Molecular Catalysis A</i> , 2001, 166, 23-30.	4.8	29

#	ARTICLE	IF	CITATIONS
37	ATTRACTORS FOR LATTICE DYNAMICAL SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2001, 11, 143-153.	0.7	206
38	Front Propagation into an Unstable State of Reaction-Transport Systems. Physical Review Letters, 2001, 86, 926-929.	2.9	62
39	Towards Computational Electrochemistry - a Kineticist's Perspective. , 2002, , 135-195.		24
40	Attractors for lattice systems corresponding to evolution equations. Nonlinearity, 2002, 15, 1079-1095.	0.6	23
41	Attractors for first order dissipative lattice dynamical systems. Physica D: Nonlinear Phenomena, 2003, 178, 51-61.	1.3	84
42	Attractors and approximations for lattice dynamical systems. Journal of Differential Equations, 2004, 200, 342-368.	1.1	96
43	Attractors for lattice FitzHugh-Nagumo systems. Physica D: Nonlinear Phenomena, 2005, 212, 317-336.	1.3	58
44	Dynamical behavior for stochastic lattice systems. Chaos, Solitons and Fractals, 2006, 27, 1080-1090.	2.5	54
45	Stable stationary solutions for a reaction-diffusion equation with a multi-stable nonlinearity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 357, 319-322.	0.9	3
46	Dynamics of systems on infinite lattices. Journal of Differential Equations, 2006, 221, 224-245.	1.1	137
47	Asymptotic synchronization in n-dimensional second order dissipative lattices of coupled oscillators. Journal of Mathematical Analysis and Applications, 2006, 322, 1111-1127.	0.5	1
48	Upper Semicontinuity and Kolmogorov $\hat{\mu}$ -Entropy of Global Attractor for k-Dimensional Lattice Dynamical System Corresponding to Klein-Gordon-Schrödinger Equation. Acta Mathematicae Applicatae Sinica, 2006, 22, 469-486.	0.4	0
49	ATTRACTORS FOR STOCHASTIC LATTICE DYNAMICAL SYSTEMS. Stochastics and Dynamics, 2006, 06, 1-21.	0.6	244
50	Attractors of retarded first order lattice systems. Nonlinearity, 2007, 20, 1987-2006.	0.6	39
51	Attractors for one kind of lattice dynamical system. Computers and Mathematics With Applications, 2007, 54, 617-626.	1.4	1
52	Attractors for a second order nonautonomous lattice dynamical system with nonlinear damping. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 365, 17-27.	0.9	29
53	Compact kernel sections for nonautonomous Klein-Gordon-Schrödinger equations on infinite lattices. Journal of Mathematical Analysis and Applications, 2007, 332, 32-56.	0.5	29
54	Symbolic dynamics of two coupled Lorenz maps: From uncoupled regime to synchronisation. Physica D: Nonlinear Phenomena, 2008, 237, 2444-2462.	1.3	4

#	ARTICLE	IF	CITATIONS
55	Attractors for stochastic lattice dynamical systems with a multiplicative noise. <i>Frontiers of Mathematics in China</i> , 2008, 3, 317-335.	0.4	97
56	Exponential attractors for first-order lattice dynamical systems. <i>Journal of Mathematical Analysis and Applications</i> , 2008, 339, 217-224.	0.5	24
57	Compact kernel sections of long-wave"short-wave resonance equations on infinite lattices. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , 2008, 68, 652-670.	0.6	11
58	Random attractors for partly dissipative stochastic lattice dynamical systems1. <i>Journal of Difference Equations and Applications</i> , 2008, 14, 799-817.	0.7	20
59	PEANO'S THEOREM AND ATTRACTORS FOR LATTICE DYNAMICAL SYSTEMS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2009, 19, 557-578.	0.7	19
60	Attractor for lattice system of dissipative Zakharov equation. <i>Acta Mathematica Sinica, English Series</i> , 2009, 25, 321-342.	0.2	5
61	Long-Time Behavior for Second Order Lattice Dynamical Systems. <i>Acta Applicandae Mathematicae</i> , 2009, 106, 47-59.	0.5	8
62	Random attractors for stochastic discrete Klein" Gordon"Schrödinger equations. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2009, 373, 1268-1275.	0.9	14
63	Stochastic phase-space description for reactions that change particle numbers. <i>Journal of Mathematical Chemistry</i> , 2009, 45, 141-160.	0.7	4
64	Sufficient conditions for the existence of global random attractors for stochastic lattice dynamical systems and applications. <i>Journal of Mathematical Analysis and Applications</i> , 2009, 354, 78-95.	0.5	61
65	Pullback and forward attractors for dissipative lattice dynamical systems with additive noises. <i>Dynamical Systems</i> , 2009, 24, 139-155.	0.2	2
66	Solving the decentralised gathering problem with a reaction"diffusion"chemotaxis scheme. <i>Swarm Intelligence</i> , 2010, 4, 91-115.	1.3	15
67	Random attractors for first order stochastic retarded lattice dynamical systems. <i>Journal of Mathematical Physics</i> , 2010, 51, 032702.	0.5	30
68	Pullback and forward attractors for dissipative cellular neural networks with additive noises. , 2010, , ,		0
69	Uniform global attractors for first order non-autonomous lattice dynamical systems. <i>Proceedings of the American Mathematical Society</i> , 2010, 138, 3219-3219.	0.4	14
70	Uniform exponential attractors for first order non-autonomous lattice dynamical systems. <i>Journal of Differential Equations</i> , 2011, 251, 1489-1504.	1.1	28
71	Random Attractors for Stochastic Retarded Lattice Dynamical Systems. <i>Abstract and Applied Analysis</i> , 2012, 2012, 1-27.	0.3	10
72	Random Attractors for Stochastic Three-Component Reversible Gray-Scott System on Infinite Lattices. <i>Discrete Dynamics in Nature and Society</i> , 2012, 2012, 1-17.	0.5	2

#	ARTICLE	IF	CITATIONS
73	Attractors of stochastic lattice dynamical systems with a multiplicative noise and non-Lipschitz nonlinearities. <i>Journal of Differential Equations</i> , 2012, 253, 667-693.	1.1	93
74	Energy bands for finite two-dimensional systems in a quantised magnetic field: the symmetry of the model. <i>Journal of Mathematical Chemistry</i> , 2013, 51, 2285-2316.	0.7	0
75	Dynamics of the discrete coupled nonlinear Schrödinger-Boussinesq equations. <i>Applied Mathematics and Computation</i> , 2013, 219, 8508-8524.	1.4	17
76	Microstructure evolution influenced by dislocation density gradients modeled in a reaction-diffusion system. <i>Computational Materials Science</i> , 2013, 67, 373-383.	1.4	17
77	Pullback Exponential Attractors for Nonautonomous Klein-Gordon-Schrödinger Equations on Infinite Lattices. <i>Abstract and Applied Analysis</i> , 2013, 2013, 1-9.	0.3	1
78	Upper semicontinuity of attractors for small perturbations of Klein-Gordon-Schrödinger lattice system. <i>Advances in Difference Equations</i> , 2014, 2014, .	3.5	4
79	Attractors of non-autonomous stochastic lattice systems in weighted spaces. <i>Physica D: Nonlinear Phenomena</i> , 2014, 289, 32-50.	1.3	114
80	On differential equations with delay in Banach spaces and attractors for retarded lattice dynamical systems. <i>Discrete and Continuous Dynamical Systems</i> , 2014, 34, 51-77.	0.5	46
81	Asymptotic behaviour of a logistic lattice system. <i>Discrete and Continuous Dynamical Systems</i> , 2014, 34, 4019-4037.	0.5	15
82	The Existence of Exponential Attractor for Discrete Ginzburg-Landau Equation. <i>Discrete Dynamics in Nature and Society</i> , 2015, 2015, 1-6.	0.5	2
84	Non-autonomous lattice systems with switching effects and delayed recovery. <i>Journal of Differential Equations</i> , 2016, 261, 2986-3009.	1.1	44
85	Random attractors for stochastic lattice dynamical systems with infinite multiplicative white noise. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , 2016, 130, 255-278.	0.6	42
86	Finite Dimensionality and Upper Semicontinuity of Kernel Sections for the Discrete Zakharov Equations. <i>Bulletin of the Malaysian Mathematical Sciences Society</i> , 2017, 40, 135-161.	0.4	2
87	Turing pattern formation in anisotropic medium. <i>Journal of Mathematical Chemistry</i> , 2017, 55, 818-831.	0.7	6
88	Stochastic Lattice Dynamical Systems with Fractional Noise. <i>SIAM Journal on Mathematical Analysis</i> , 2017, 49, 1495-1518.	0.9	24
89	Upper semicontinuity of random attractors of stochastic discrete complex Ginzburg-Landau equations with time-varying delays in the delay. <i>Journal of Difference Equations and Applications</i> , 2018, 24, 872-897.	0.7	17
90	A novel chaos control strategy for discrete-time Brusselator models. <i>Journal of Mathematical Chemistry</i> , 2018, 56, 3045-3075.	0.7	41
91	Invariant Borel probability measures for discrete long-wave-short-wave resonance equations. <i>Applied Mathematics and Computation</i> , 2018, 339, 853-865.	1.4	17

#	ARTICLE	IF	CITATIONS
92	Lattice Dynamical Systems in the Biological Sciences. The IMA Volumes in Mathematics and Its Applications, 2019, , 201-233.	0.5	4
93	Dynamics of stochastic reaction-diffusion lattice systems driven by nonlinear noise. Journal of Mathematical Analysis and Applications, 2019, 477, 104-132.	0.5	49
94	Discretisation of Global Attractors for Lattice Dynamical Systems. Journal of Dynamics and Differential Equations, 2020, 32, 1457-1474.	1.0	18
95	Asymptotic behavior of stochastic Schrödinger lattice systems driven by nonlinear noise. Stochastic Analysis and Applications, 2020, 38, 213-237.	0.9	27
96	Regularity of random attractors for non-autonomous stochastic discrete complex Ginzburg-Landau equations. Journal of Difference Equations and Applications, 2020, 26, 587-608.	0.7	0
97	Long time behavior for the stochastic parabolic-wave systems with delay on infinite lattice. Nonlinear Analysis: Theory, Methods & Applications, 2020, 197, 111866.	0.6	2
98	Long Term Behavior for a Class of Stochastic Delay Lattice Systems in $\mathbb{R}^d$ Space. Discrete Dynamics in Nature and Society, 2020, 2020, 1-10.	0.5	0
99	Random attractor for second-order stochastic delay lattice sine-Gordon equation. Boundary Value Problems, 2021, 2021, .	0.3	0
100	Dynamics and invariant measures of multi-stochastic sine-Gordon lattices with random viscosity and nonlinear noise. Journal of Mathematical Physics, 2021, 62, .	0.5	4
101	Wong-Zakai approximations and random attractors of non-autonomous stochastic discrete complex Ginzburg-Landau equations. Journal of Mathematical Physics, 2021, 62, .	0.5	6
102	Dynamics of Second Order Lattice Systems with Almost Periodic Nonlinear Part. Qualitative Theory of Dynamical Systems, 2021, 20, 1.	0.8	5
103	Asymptotic behaviour of non-autonomous discrete complex Ginzburg-Landau equations driven by nonlinear noise. Journal of Difference Equations and Applications, 2021, 27, 947-965.	0.7	1
104	Periodic measures of impulsive stochastic Hopfield-type lattice systems. Stochastic Analysis and Applications, 0, , 1-17.	0.9	4
105	Traveling waves for a four-compartment lattice epidemic system with exposed class and standard incidence. Mathematical Methods in the Applied Sciences, 2022, 45, 113-136.	1.2	7
106	Numerical attractors and approximations for stochastic or deterministic sine-Gordon lattice equations. Applied Mathematics and Computation, 2022, 413, 126640.	1.4	3
107	Invariant measures of stochastic delay lattice systems. Discrete and Continuous Dynamical Systems - Series B, 2021, 26, 3235.	0.5	13
108	Traveling Wave Solutions for a Class of Discrete Diffusive SIR Epidemic Model. Journal of Nonlinear Science, 2021, 31, 1.	1.0	25
109	Internal Noise, Oscillations, Chaos and Chemical Waves. , 1995, , 609-634.		2

#	ARTICLE	IF	CITATIONS
110	STOCHASTIC FITZHUGH-NAGUMO SYSTEMS WITH DELAY. Taiwanese Journal of Mathematics, 2012, 16, .	0.2	11
111	Exponential attractors for second order lattice dynamical systems. Communications on Pure and Applied Analysis, 2009, 8, 803-813.	0.4	20
112	Uniform attractor of the non-autonomous discrete Selkov model. Discrete and Continuous Dynamical Systems, 2014, 34, 229-248.	0.5	4
113	Random attractors for stochastic discrete Klein-Gordon-Schrödinger equations driven by fractional Brownian motions. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 1587-1599.	0.5	7
114	Attractors for multi-valued lattice dynamical systems with nonlinear diffusion terms. Stochastics and Dynamics, 0, , .	0.6	1
115	Attractors for Lattice Dynamical Systems. Advances in Mechanics and Mathematics, 2012, , 119-160.	0.2	0
116	Modeling Front Pattern Formation and Intermittent Bursting Phenomena in the Couette Flow Reactor. , 1995, , 517-570.		0
117	Percolation Times in Two-Dimensional Models For Excitable Media. Electronic Journal of Probability, 1996, 1, .	0.5	3
118	Long time dynamics of a multidimensional nonlinear lattice with memory. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 2715-2732.	0.5	2
119	PULLBACK ATTRACTORS AND INVARIANT MEASURES FOR THE DISCRETE ZAKHAROV EQUATIONS. Journal of Applied Analysis and Computation, 2019, 9, 2333-2357.	0.2	7
120	Pullback attractors of nonautonomous discrete p-Laplacian complex Ginzburg-Landau equations with fast-varying delays. Advances in Difference Equations, 2020, 2020, .	3.5	0
121	Periodic measures of reaction-diffusion lattice systems driven by superlinear noise. Electronic Research Archive, 2022, 30, 35-51.	0.4	0
122	Attractors of the Klein-Gordon-Schrödinger lattice systems with almost periodic nonlinear part. Discrete and Continuous Dynamical Systems - Series B, 2022, .	0.5	0
123	Wong-Zakai approximations and long term behavior of second order non-autonomous stochastic lattice dynamical systems with additive noise. AIMS Mathematics, 2022, 7, 7569-7594.	0.7	0
124	Traveling wave solutions for a discrete diffusive epidemic model with asymptomatic carriers. International Journal of Biomathematics, 2023, 16, .	1.5	1
125	Periodic solutions in distribution of stochastic lattice differential equations. Discrete and Continuous Dynamical Systems - Series B, 2022, .	0.5	2
126	Dynamical stability of random delayed FitzHugh-Nagumo lattice systems driven by nonlinear Wong-Zakai noise. Journal of Mathematical Physics, 2022, 63, .	0.5	3
127	Random Attractor, Invariant Measures, and Ergodicity of Lattice p-Laplacian Equations Driven by Superlinear Noise. Journal of Geometric Analysis, 2023, 33, .	0.5	4



#	ARTICLE	IF	CITATIONS
128	Pullback attractor for a class of non-autonomous lattice differential equations with delays. Journal of Mathematical Analysis and Applications, 2023, 521, 126966.	0.5	0
129	Random Uniform Attractors for First Order Stochastic Non-Autonomous Lattice Systems. Qualitative Theory of Dynamical Systems, 2023, 22, .	0.8	0
131	Existence and Uniqueness of Solution of Fractional FitzHugh-Nagumo System. , 2022, , .		0