Fereydoon Family

List of Publications by Year
in descending order

144 papers	6,973 citations	87401 40 h-index	75989 78 g-index
151 all docs	151 docs citations	151 times ranked	3611 citing authors

#	Article	IF	Citations
1	Transient superdiffusive motion on a disordered ratchet potential. Physica A: Statistical Mechanics and Its Applications, 2019, 523, 172-179.	1.2	3
2	A new formulation of heat dissipation in a rocking BÃ¼ttiker-Landauer ratchet model. Journal of Physics: Conference Series, 2019, 1290, 012022.	0.3	3
3	Chaotic Dynamics in Kicked Ratchets. Physics Procedia, 2015, 68, 32-36.	1.2	0
4	Chaos in kicked ratchets. Physical Review E, 2015, 91, 032901.	0.8	1
5	Physics of Cell Adhesion Failure and Human Diseases. Physics Procedia, 2014, 57, 24-28.	1.2	2
6	Stretching DNA to quantify nonspecific protein binding. Physical Review E, 2012, 86, 011905.	0.8	2
7	The effect of social cues on marketing decisions. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 1395-1399.	1.2	0
8	Adhesion Failures Determine the Pattern of Choroidal Neovascularization in the Eye: A Computer Simulation Study. PLoS Computational Biology, 2012, 8, e1002440.	1.5	39
9	Dynamic Scaling of Lipofuscin Deposition in Aging Cells. Journal of Statistical Physics, 2011, 144, 332-343.	0.5	3
10	Statistical physics of age related macular degeneration. Physics Procedia, 2010, 4, 21-33.	1.2	5
11	Determination of the number of proteins bound non-specifically to DNA. Journal of Physics Condensed Matter, 2010, 22, 414104.	0.7	17
12	Complex synchronization structure of an overdamped ratchet with discontinuous periodic forcing. Physical Review E, 2009, 80, 011127.	0.8	13
13	Trapping mechanism in overdamped ratchets with quenched noise. Physical Review E, 2007, 75, 051101.	0.8	11
14	Transport and diffusion in overdamped ratchets as a synchronization problem. Physica A: Statistical Mechanics and Its Applications, 2005, 352, 282-294.	1.2	7
15	Chaotic dynamics and control of deterministic ratchets. Journal of Physics Condensed Matter, 2005, 17, S3719-S3739.	0.7	15
16	Current basins of attraction in inertia ratchets. Physica A: Statistical Mechanics and Its Applications, 2003, 320, 119-127.	1.2	22
17	Dynamic Scaling, Island Size Distribution, and Morphology in the Aggregation Regime of Submonolayer Pentacene Films. Physical Review Letters, 2003, 91, 136102.	2.9	172
18	Control of Current Reversal in Single and Multiparticle Inertia Ratchets. AIP Conference Proceedings, 2003, , .	0.3	0

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19	Self-consistent rate equation theory of cluster size distribution in aggregation phenomena. Physica A: Statistical Mechanics and Its Applications, 2002, 306, 129-139.	1.2	7
20	Kinetics of submonolayer epitaxial growth. Computer Physics Communications, 2002, 146, 1-8.	3.0	10
21	Control of current reversal in single and multiparticle inertia ratchets. Physica A: Statistical Mechanics and Its Applications, 2002, 303, 67-78.	1.2	26
22	Self-consistent rate-equation approach to irreversible submonolayer growth in one dimension. Surface Science, 2001, 491, 239-254.	0.8	31
23	Rate-Equation Approach to Island Capture Zones and Size Distributions in Epitaxial Growth. Physical Review Letters, 2001, 86, 3092-3095.	2.9	91
24	Rate-equation approach to island size distributions and capture numbers in submonolayer irreversible growth. Physical Review B, 2001, 64, .	1.1	52
25	Quenched disorder effects on deterministic inertia ratchets. Physical Review E, 2001, 63, 061104.	0.8	36
26	Effects of island geometry in postdeposition island growth. Physical Review B, 2000, 62, 13129-13135.	1.1	4
27	Disorder Induced Diffusive Transport in Ratchets. Physical Review Letters, 2000, 85, 3321-3324.	2.9	52
28	Roughening, deroughening, and nonuniversal scaling of the interface width in electrophoretic deposition of polymer chains. Physical Review E, 2000, 62, 914-917.	0.8	14
29	Friction at the Nanoscaleâ€,â€¡. Journal of Physical Chemistry B, 2000, 104, 3984-3987.	1.2	14
30	KINETICS OF EPITAXIAL THIN FILM GROWTH. , 2000, , 49-82.		0
31	Friction Selection in Nonlinear Particle Arrays. Physical Review Letters, 1999, 83, 104-107.	2.9	37
32	Tuning friction with noise and disorder. Physical Review E, 1999, 59, R4737-R4740.	0.8	30
33	Scaling, percolation and coarsening in epitaxial thin film growth. Physica A: Statistical Mechanics and Its Applications, 1999, 266, 173-185.	1.2	21
34	Post-deposition island growth with long-range interactions. Physica A: Statistical Mechanics and Its Applications, 1999, 273, 231-240.	1.2	5
35	Self-Consistent Rate-Equation Approach to Nucleation and Growth in Point/Extended Island Models of 1-D Homoepitaxy. Materials Research Society Symposia Proceedings, 1999, 570, 3.	0.1	1
36	Memory correlation effect on thermal ratchets. Physica A: Statistical Mechanics and Its Applications, 1998, 251, 368-381.	1.2	5

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37	Submonolayer epitaxial growth with long-range (LÃ©vy) diffusion. Physical Review E, 1998, 58, 7130-7136.	0.8	12
38	Quenched disorder enhances chaotic diffusion. Physical Review E, 1998, 58, R4057-R4059.	0.8	10
39	Self-consistent rate-equation approach to transitions in critical island size in metal (100) and metal (111) homoepitaxy. Physical Review B, 1998, 58, 1613-1619.	1.1	29
40	Mound Formation, Coarsening and Instabilities in Epitaxial Growth. Surface Review and Letters, 1998, 05, 851-864.	0.5	8
41	Transitions in Critical Island Size in Metal (100) and (111) Homoepitaxy: A Self-Consistent Rate Equation Approach. Materials Research Society Symposia Proceedings, 1998, 528, 125.	0.1	0
42	Scaling and Coarsening in Epitaxial Growth. Materials Research Society Symposia Proceedings, 1998, 528, 93.	0.1	1
43	Nonlinear friction in the periodic stick-slip motion of coupled oscillators. Physical Review B, 1997, 55, 5491-5504.	1.1	47
44	Transport of elastically coupled particles in an asymmetric periodic potential. Physical Review E, 1997, 55, 5179-5183.	0.8	60
45	Transitions in critical size in metal (100) and metal (111) homoepitaxy. Surface Science, 1997, 382, 170-177.	0.8	15
46	Active random walkers simulate trunk trail formation by ants. BioSystems, 1997, 41, 153-166.	0.9	82
47	Characterization of surface morphology in epitaxial growth. Surface Science, 1996, 365, 177-185.	0.8	21
48	Electrochemical Synthesis and Processing of Materials: From Fractal Electrodes to Epitaxial Thin Films. Materials Research Society Symposia Proceedings, 1996, 451, 123.	0.1	0
49	Mound Formation and Coarsening in Homoepitaxial Growth. Materials Research Society Symposia Proceedings, 1996, 440, 229.	0.1	0
50	Fractal concepts in surface growth. Journal of Statistical Physics, 1996, 83, 1255-1259.	0.5	5
51	Kinetics of submonolayer and multilayer epitaxial growth. Thin Solid Films, 1996, 272, 208-222.	0.8	78
52	Lattice animal enumeration as a test of detailed balance in the Clarke-Vvedensky model of epitaxial growth. Physica A: Statistical Mechanics and Its Applications, 1996, 231, 369-374.	1.2	2
53	Critical temperature for mound formation in molecular-beam epitaxy. Physical Review B, 1996, 54, 14071-14076.	1.1	26
54	Array-enhanced friction in the periodic stick-slip motion of nonlinear oscillators. Physical Review E, 1996, 53, R3005-R3008.	0.8	46

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55	Step-Adatom Attraction as a New Mechanism for Instability in Epitaxial Growth. Physical Review Letters, 1996, 77, 4584-4587.	2.9	74
56	Effects of Crystalline Microstructure on Epitaxial Morphology. Materials Research Society Symposia Proceedings, 1995, 399, 67.	0.1	3
57	Characterization of Surface Morphology in Epitaxial Growth. Materials Research Society Symposia Proceedings, 1995, 399, 95.	0.1	1
58	Kinetics of epitaxial growth and roughening. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1995, 30, 149-166.	1.7	31
59	Step barrier for interlayer diffusion in Fe/Fe(100) epitaxial growth. Physical Review B, 1995, 52, 13801-13804.	1.1	32
60	Critical Cluster Size: Island Morphology and Size Distribution in Submonolayer Epitaxial Growth. Physical Review Letters, 1995, 75, 2069-2069.	2.9	8
61	FRACTAL GROWTH OF BACTERIAL COLONIES. Fractals, 1995, 03, 869-877.	1.8	2
62	Critical Cluster Size: Island Morphology and Size Distribution in Submonolayer Epitaxial Growth. Physical Review Letters, 1995, 74, 2066-2069.	2.9	433
63	FRACTAL SURFACES IN ENGINEERING: APPLICATIONS OF DYNAMIC SCALING. Fractals, 1994, 02, 211-221.	1.8	0
64	Renormalization-group analysis and simulational studies of groove instability in surface growth. Physica A: Statistical Mechanics and Its Applications, 1994, 205, 272-283.	1.2	4
65	Dynamic scaling of the island-size distribution and percolation in a model of submonolayer molecular-beam epitaxy. Physical Review B, 1994, 50, 8781-8797.	1.1	321
66	Critical Cluster Size: Island Morphology and Size Distribution in Submonolayer Epitaxial Growth. Materials Research Society Symposia Proceedings, 1994, 367, 149.	0.1	8
67	THE MORPHOLOGY AND EVOLUTION OF THE SURFACE IN EPITAXIAL AND THIN FILM GROWTH: A CONTINUUM MODEL WITH SURFACE DIFFUSION. , 1994, , 379-392.		0
68	Groove instabilities in surface growth with diffusion. Physical Review E, 1993, 47, 3242-3245.	0.8	97
69	SCALING OF THE POINT-POINT CORRELATION FUNCTION OF DLA. Fractals, 1993, 01, 229-237.	1.8	0
70	THE MORPHOLOGY AND EVOLUTION OF THE SURFACE IN EPITAXIAL AND THIN FILM GROWTH: A CONTINUUM MODEL WITH SURFACE DIFFUSION. Fractals, 1993, 01, 753-766.	1.8	10
71	Laplacian Needle Growth. Europhysics Letters, 1993, 24, 527-532.	0.7	26
72	Mode-coupling theory and simulation results for the â€˜â€˜running-sandpileâ€™â€™ model of self-organized criticality. Physical Review E, 1993, 47, 1570-1577.	0.8	5

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73	Consistent scaling of multifractal measures: Multifractal spatial correlations. Physical Review E, 1993, 47, 2281-2288.	0.8	1
74	Deterministic and stochastic surface growth with generalized nonlinearity. Physical Review E, 1993, 47, 1595-1603.	0.8	30
75	Continuum Model of Epitaxial Roughening. Materials Research Society Symposia Proceedings, 1993, 317, 117.	0.1	0
76	Dynamic Scaling of the Island-Size Distribution and Percolation in a model of Sub-Monolayer Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 1993, 317, 167.	0.1	3
77	Fractal Structures and Dynamics of Cluster Growth. , 1993, , 323-344.		2
78	Dynamic Scaling in Surface Growth Phenomena. NATO ASI Series Series B: Physics, 1993, , 45-55.	0.2	1
79	Universality in surface growth: Scaling functions and amplitude ratios. Physical Review A, 1992, 45, 5378-5393.	1.0	49
80	Universal scaling function and amplitude ratios in surface growth. Physical Review A, 1992, 45, R3373-R3376.	1.0	27
81	Diffusion-annihilation and the kinetics of the Ising model in one dimension. Journal of Statistical Physics, 1991, 65, 1235-1246.	0.5	46
82	Surface growth with long-range correlated noise. Physical Review A, 1991, 43, 4548-4550.	1.0	49
83	Surface growth in a model of molecular-beam epitaxy with correlated noise. Physical Review A, 1991, 44, 4854-4860.	1.0	8
84	Anomalous noise distribution of the interface in two-phase fluid flow. Physical Review Letters, 1991, 67, 3207-3210.	2.9	81
85	Scaling in open dissipative systems. Physical Review Letters, 1991, 66, 1982-1985.	2.9	99
86	Dynamics of a height-conserved surface-growth model with spatially correlated noise. Physical Review A, 1991, 44, 7939-7950.	1.0	13
87	Exact relationship between the radius of gyration and the density-density correlation function: Application to diffusion limited aggregation. Physica A: Statistical Mechanics and Its Applications, 1990, 163, 433-439.	1.2	3
88	Many-body effects in two-dimensional Ostwald ripening. Physica A: Statistical Mechanics and Its Applications, 1990, 163, 491-500.	1.2	12
89	Dynamic scaling and phase transitions in interface growth. Physica A: Statistical Mechanics and Its Applications, 1990, 168, 561-580.	1.2	325
90	Multifractal Geometry of Diffusion-Limited Aggregates. Europhysics Letters, 1990, 12, 217-222.	0.7	79

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91	Diffusion annihilation in one dimension and kinetics of the Ising model at zero temperature. Physical Review A, 1990, 41, 3258-3262.	1.0	131
92	Comment on â€˜â€˜Self-affine fractal interfaces from immiscible displacement in porous mediaâ€™â€™. Physical Review Letters, 1990, 65, 1388-1388.	2.9	58
93	Amar and Family reply. Physical Review Letters, 1990, 64, 2334-2334.	2.9	57
94	Phase transition in a restricted solid-on-solid surface-growth model in 2+1 dimensions. Physical Review Letters, 1990, 64, 543-546.	2.9	103
95	Relationship between a generalized restricted solid-on-solid growth model and a continuum equation for interface growth. Physical Review A, 1990, 41, 7075-7077.	1.0	40
96	Numerical solution of a continuum equation for interface growth in 2+1 dimensions. Physical Review A, 1990, 41, 3399-3402.	1.0	171
97	Dynamics in a long-range exchange model. Physica A: Statistical Mechanics and Its Applications, 1990, 166, 408-429.	1.2	3
98	Avalanche dynamics in a deposition model with â€˜â€˜slidingâ€™â€™. Physical Review A, 1989, 40, 5922-5934.	1.0	15
99	Fractal pattern formation in human retinal vessels. Physica D: Nonlinear Phenomena, 1989, 38, 98-103.	1.3	166
100	Kinetics of droplet growth processes: Simulations, theory, and experiments. Physical Review A, 1989, 40, 3836-3854.	1.0	150
101	Scaling of the Droplet-Size Distribution in Vapor-Deposited Thin Films. Physical Review Letters, 1988, 61, 428-431.	2.9	211
102	Validity of diffusion-enhancement techniques applied to diffusion-limited aggregation and other diffusive growth processes. Physical Review A, 1988, 38, 4910-4911.	1.0	6
103	Structure and kinetics of reaction-limited aggregation. Physical Review A, 1988, 38, 2110-2123.	1.0	82
104	Percolation in an interactive cluster-growth model. Physical Review A, 1988, 38, 4198-4204.	1.0	38
105	Bubbles in the Hele-Shaw cell: Pattern selection and tip perturbations. Physical Review A, 1988, 38, 5253-5259.	1.0	5
106	One-Dimensional Aggregation of Anisotropic Particles in an Exrenal Field. , 1988, , 515-518.		0
107	Aggregation of oriented anisotropic particles. Physical Review A, 1987, 36, 1421-1427.	1.0	73
108	Scaling theory for the anisotropic behavior of generalized diffusion-limited aggregation clusters in two dimensions. Physical Review A, 1987, 36, 3518-3521.	1.0	10

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109	Scaling group formulation of multifractals. Physical Review Letters, 1987, 58, 2786-2789.	2.9	6
110	Structure and dynamics of reaction-limited aggregation. Physical Review A, 1987, 36, 5498-5501.	1.0	96
111	Asymptotic structure of diffusion-limited aggregation clusters in two dimensions. Faraday Discussions of the Chemical Society, 1987, 83, 139.	2.2	19
112	Viscous fingering simulated by off-lattice aggregation. Journal of Colloid and Interface Science, 1987, 117, 394-399.	5.0	39
113	Kinetics of Coagulation with Fragmentation: Scaling Behavior and Fluctuations. Physical Review Letters, 1986, 57, 727-730.	2.9	173
114	Diverging length scales in diffusion-limited aggregation. Physical Review A, 1986, 34, 2558-2560.	1.0	56
115	Kinetics of Coagulation with Fragmentation: Scaling Behavior and Fluctuations. Physical Review Letters, 1986, 57, 2332-2332.	2.9	8
116	Optimized phenomenological renormalization group for geometrical models: Applications to diffusion-limited aggregation. Physical Review A, 1985, 32, 2557-2559.	1.0	7
117	Are Random Fractal Clusters Isotropic?. Physical Review Letters, 1985, 55, 641-644.	2.9	53
118	Large-cell Monte Carlo renormalization of irreversible growth processes. Physical Review A, 1985, 32, 3606-3617.	1.0	17
119	Scaling in steady-state cluster-cluster aggregation. Physical Review A, 1985, 32, 1122-1128.	1.0	91
120	Dynamic cluster-size distribution in cluster-cluster aggregation: Effects of cluster diffusivity. Physical Review B, 1985, 31, 564-569.	1.1	260
121	Cluster size distribution in chemically controlled cluster–cluster aggregation. Journal of Chemical Physics, 1985, 83, 4144-4150.	1.2	121
122	Gelation by additive polymerization in two dimensions. Journal of Polymer Science, Polymer Symposia, 1985, 73, 1-5.	0.1	1
123	Kinetics of aggregation and gelation. Journal of Polymer Science, Polymer Symposia, 1985, 73, 19-37.	0.1	19
124	Dynamic Scaling in Aggregation Phenomena. Springer Proceedings in Physics, 1985, , 238-244.	0.1	1
125	Polymer statistics and universality: Principles and applications of cluster renormalization. AIP Conference Proceedings, 1984, , .	0.3	2
126	Treelike percolation in two dimensions. Physical Review A, 1984, 29, 254-256.	1.0	5

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127	Experimental realization of true self-avoiding walks. Physical Review B, 1984, 29, 1506-1507.	1.1	27
128	Polymer chain statistics and universality: Crossover from random to self-avoiding walks. Journal of Chemical Physics, 1984, 80, 3892-3897.	1.2	19
129	Corrections to cluster-radius scaling for branched polymers and percolation. European Physical Journal B, 1984, 54, 321-324.	0.6	20
130	Fractal dimension and grand Universality of critical phenomena. Journal of Statistical Physics, 1984, 36, 881-896.	0.5	58
131	Dynamic Scaling for Aggregation of Clusters. Physical Review Letters, 1984, 52, 1669-1672.	2.9	523
132	CRITICAL DYNAMICS IN CLUSTER-CLUSTER AGGREGATION. , 1984, , 111-115.		5
133	PERSPECTIVES IN THE KINETICS OF AGGREGATION AND GELATION. , 1984, , 265-266.		157
134	LARGE-CELL MONTE CARLO RENORMALIZATION OF IRREVERSIBLE GROWTH PROCESSES. , 1984, , 79-82.		0
135	Kinetics of Formation of Randomly Branched Aggregates: A Renormalization-Group Approach. Physical Review Letters, 1983, 50, 686-689.	2.9	148
136	Self-Similarity in Irreversible Kinetic Gelation. Physical Review Letters, 1983, 51, 2112-2115.	2.9	25
137	Evidence for classical critical behavior in long-range site percolation. Physical Review B, 1983, 28, 1449-1452.	1.1	32
138	Transition in Random Four-State Potts Model and Oxygen on Ni(111). Physical Review Letters, 1982, 48, 367-367.	2.9	12
139	A direct renormalization group study of loops in polymers. Physics Letters, Section A: General, Atomic and Solid State Physics, 1982, 92, 341-344.	0.9	13
140	Pressure dependence of phonon dispersion and the structure function of superfluid helium-4 at low temperatures. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1981, 107, 699-700.	0.9	1
141	Radius of clusters at the percolation threshold: A position space renormalization group study. Zeitschrift Für Physik B Condensed Matter and Quanta, 1981, 45, 123-128.	1.9	11
142	Microscopic calculation of critical exponents without the or ïµ expansions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1975, 53, 111-113.	0.9	3
143	Sum Rules and High-Frequency Behavior of Dynamic Structure Function of Quantum Fluids. Physical Review Letters, 1975, 34, 1374-1377.	2.9	22
144	Application of field-theoretic, collective-coordinate, and correlated-basis-function methods to many-boson systems. Physical Review B, 1975, 12, 3729-3740.	1.1	5