Amos Maritan

List of Publications by Year in Descending Order

234 papers	11,914 citations	55 h-index	102 g-index
243 ext. papers	13,347 ext. citations	8 avg, IF	6.27 L-index

#	Paper	IF	Citations
234	Pairing statistics and melting of random DNA oligomers: Finding your partner in superdiverse environments.. *PLoS Computational Biology*, **2022**, 18, e1010051	5	0
233	Effective Resource Competition Model for Species Coexistence. *Physical Review Letters*, **2021**, 127, 208101	9.1	3
232	True scale-free networks hidden by finite size effects. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	13
231	Building blocks of protein structures: Physics meets biology. *Physical Review E*, **2021**, 104, 014402	2.4	1
230	Upscaling human activity data: A statistical ecology approach. *PLoS ONE*, **2021**, 16, e0253461	3.7	
229	Spontaneous dimensional reduction and ground state degeneracy in a simple chain model. *Physical Review E*, **2021**, 104, L012101	2.4	
228	Marginally compact phase and ordered ground states in a model polymer with side spheres. *Physical Review E*, **2021**, 104, L012501	2.4	
227	DNA sequence symmetries from randomness: the origin of the Chargaff's second parity rule. *Briefings in Bioinformatics*, **2021**, 22, 2172-2181	13.4	2
226	Local sequence-structure relationships in proteins. *Protein Science*, **2021**, 30, 818-829	6.3	3
225	Scaling of joint mass and metabolism fluctuations in in silico cell-laden spheroids. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	1
224	Constrained proteome allocation affects coexistence in models of competitive microbial communities. *ISME Journal*, **2021**, 15, 1458-1477	11.9	4
223	Dynamic metabolic adaptation can promote species coexistence in competitive microbial communities. *PLoS Computational Biology*, **2020**, 16, e1007896	5	19
222	Emergence of Network Motifs in Deep Neural Networks. *Entropy*, **2020**, 22,	2.8	1
221	Optimal transport from a point-like source. *Continuum Mechanics and Thermodynamics*, **2020**, 32, 1325-1335	3.5	1
220	On the probabilistic nature of the species-area relation. *Journal of Theoretical Biology*, **2019**, 462, 391-407	2.3	3
219	Local symmetry determines the phases of linear chains: a simple model for the self-assembly of peptides. *Soft Matter*, **2019**, 15, 5596-5613	3.6	4
218	Reconciling cooperation, biodiversity and stability in complex ecological communities. *Scientific Reports*, **2019**, 9, 5580	4.9	11

217	Neutral and niche forces as drivers of species selection. *Journal of Theoretical Biology*, **2019**, 483, 109962	2.3	4
216	Inferring macro-ecological patterns from local presence/absence data. *Oikos*, **2019**, 128, 1641-1652	4	4
215	Entropy production in master equations and Fokker-Planck equations: facing the coarse-graining and recovering the information loss. *Journal of Statistical Mechanics: Theory and Experiment*, **2019**, 2019, 104013	1.9	8
214	Generalized size scaling of metabolic rates based on single-cell measurements with freshwater phytoplankton. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 17323-17329	11.5	11
213	The elixir phase of chain molecules. *Proteins: Structure, Function and Bioinformatics*, **2019**, 87, 176-184	4.2	5
212	Archetypes of human cognition defined by time preference for reward and their brain correlates: An evolutionary trade-off approach. *NeuroImage*, **2019**, 185, 322-334	7.9	8
211	River landscapes and optimal channel networks. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 6548-6553	11.5	23
210	Testing a general approach to assess the degree of disturbance in tropical forests. *Journal of Vegetation Science*, **2017**, 28, 659-668	3.1	7
209	Feasibility and coexistence of large ecological communities. *Nature Communications*, **2017**, 8,	17.4	63
208	Explorability and the origin of network sparsity in living systems. *Scientific Reports*, **2017**, 7, 12323	4.9	16
207	Upscaling species richness and abundances in tropical forests. *Science Advances*, **2017**, 3, e1701438	14.3	20
206	Covariations in ecological scaling laws fostered by community dynamics. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 10672-10677	11.5	14
205	Species coexistence in a neutral dynamics with environmental noise. *Journal of Theoretical Biology*, **2017**, 413, 1-10	2.3	29
204	Entropy production in systems with random transition rates close to equilibrium. *Physical Review E*, **2017**, 96, 062110	2.4	5
203	Generalized CNS arousal: An elementary force within the vertebrate nervous system. *Neuroscience and Biobehavioral Reviews*, **2016**, 68, 167-176	9	29
202	Application of optimal data-based binning method to spatial analysis of ecological datasets. *Spatial Statistics*, **2016**, 16, 137-151	2.2	4
201	Predicting the stability of large structured food webs. *Nature Communications*, **2015**, 6, 7842	17.4	75
200	Generalized receptor law governs phototaxis in the phytoplankton Euglena gracilis. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 7045-50	11.5	41

199	On entropy production in nonequilibrium systems. *Journal of Statistical Mechanics: Theory and Experiment*, **2015**, 2015, P08014	1.9	8
198	New activity pattern in human interactive dynamics. *Journal of Statistical Mechanics: Theory and Experiment*, **2015**, 2015, P09006	1.9	2
197	Resilience and reactivity of global food security. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 6902-7	11.5	128
196	Sample and population exponents of generalized Taylor's law. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 7755-60	11.5	45
195	Effect of localization on the stability of mutualistic ecological networks. *Nature Communications*, **2015**, 6, 10179	17.4	51
194	Towards a unified descriptive theory for spatial ecology: predicting biodiversity patterns across spatial scales. *Methods in Ecology and Evolution*, **2015**, 6, 324-332	7.7	43
193	Coexistence in neutral theories: interplay of criticality and mild local preferences. *Journal of Statistical Mechanics: Theory and Experiment*, **2015**, 2015, P01030	1.9	6
192	Disentangling the effect of hybrid interactions and of the constant effort hypothesis on ecological community stability. *Oikos*, **2014**, 123, 525-532	4	38
191	Time to Absorption for a Heterogeneous Neutral Competition Model. *Journal of Statistical Physics*, **2014**, 156, 119-130	1.5	4
190	Diffusion of tagged particles in a crowded medium. *Europhysics Letters*, **2014**, 107, 20006	1.6	11
189	Information-based fitness and the emergence of criticality in living systems. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 10095-100	11.5	108
188	Form, function, and evolution of living organisms. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 3332-7	11.5	46
187	Evolution and selection of river networks: statics, dynamics, and complexity. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 2417-24	11.5	100
186	Emergence of structural and dynamical properties of ecological mutualistic networks. *Nature*, **2013**, 500, 449-52	50.4	170
185	Flory theory for polymers. *Journal of Physics Condensed Matter*, **2013**, 25, 503101	1.8	44
184	Scaling body size fluctuations. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 4646-50	11.5	59
183	Analysis of noise-induced bimodality in a Michaelis–Menten single-step enzymatic cycle. *Physica A: Statistical Mechanics and Its Applications*, **2013**, 392, 336-342	3.3	6
182	An allometry-based approach for understanding forest structure, predicting tree-size distribution and assessing the degree of disturbance. *Proceedings of the Royal Society B: Biological Sciences*, **2013**, 280, 20122375	4.4	30

181	From cellular characteristics to disease diagnosis: uncovering phenotypes with supercells. *PLoS Computational Biology*, **2013**, 9, e1003215	5	28
180	Growth or reproduction: emergence of an evolutionary optimal strategy. *Journal of Statistical Mechanics: Theory and Experiment*, **2013**, 2013, P10020	1.9	2
179	Water-controlled wealth of nations. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 4230-3	11.5	91
178	The effect of quenched disorder in neutral theories. *Journal of Statistical Mechanics: Theory and Experiment*, **2013**, 2013, P04032	1.9	14
177	Human mobility in a continuum approach. *PLoS ONE*, **2013**, 8, e60069	3.7	57
176	On species persistence-time distributions. *Journal of Theoretical Biology*, **2012**, 303, 15-24	2.3	25
175	Inverse problem for multivariate time series using dynamical latent variables. *Physica A: Statistical Mechanics and Its Applications*, **2012**, 391, 3159-3169	3.3	1
174	Scale invariance in the dynamics of spontaneous behavior. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 10564-9	11.5	78
173	Spatial aggregation and the species-area relationship across scales. *Journal of Theoretical Biology*, **2012**, 313, 87-97	2.3	20
172	Absence of detailed balance in ecology. *Europhysics Letters*, **2012**, 100, 38002	1.6	5
171	Protein Sequence and Structure: Is One More Fundamental than the Other?. *Journal of Statistical Physics*, **2012**, 148, 637-646	1.5	4
170	A universal model for mobility and migration patterns. *Nature*, **2012**, 484, 96-100	50.4	760
169	An exactly solvable coarse-grained model for species diversity. *Journal of Statistical Mechanics: Theory and Experiment*, **2012**, 2012, P07017	1.9	4
168	Spatial effects on species persistence and implications for biodiversity. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 4346-51	11.5	55
167	Self-similarity and scaling in forest communities. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 7658-62	11.5	23
166	A general basis for quarter-power scaling in animals. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 15816-20	11.5	133
165	Exploring the universe of protein structures beyond the Protein Data Bank. *PLoS Computational Biology*, **2010**, 6, e1000957	5	50
164	Simplified exactly solvable model for β-amyloid aggregation. *Physical Review Letters*, **2010**, 105, 108102	7.4	13

163	Predicting spatial similarity of freshwater fish biodiversity. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 7058-62	11.5	18
162	First-principles design of nanomachines. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 6900-3	11.5	18
161	Inferring species interactions in tropical forests. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 13854-9	11.5	81
160	Phase diagrams for DNA denaturation under stretching forces. *Journal of Statistical Mechanics: Theory and Experiment*, **2009**, 2009, L04001	1.9	10
159	Microseconds dynamics simulations of the outer-membrane protease T. *Biophysical Journal*, **2008**, 94, 71-8	2.9	40
158	Incipient criticality in ecological communities. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 18714-7	11.5	12
157	Self-templated nucleation in peptide and protein aggregation. *Physical Review Letters*, **2008**, 101, 258101	7.4	77
156	Structural motifs of biomolecules. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 17283-6	11.5	28
155	Patterns of relative species abundance in rainforests and coral reefs. *Nature*, **2007**, 450, 45-9	50.4	198
154	Aggregation of natively folded proteins: a theoretical approach. *Journal of Physics Condensed Matter*, **2007**, 19, 285221	1.8	4
153	Symmetry, shape, and order. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 19187-92	11.5	11
152	Marginal compactness of protein native structures. *Journal of Physics Condensed Matter*, **2006**, 18, S297-S306	1.8	5
151	Insight into the structure of amyloid fibrils from the analysis of globular proteins. *PLoS Computational Biology*, **2006**, 2, e170	5	167
150	A backbone-based theory of protein folding. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 16623-33	11.5	355
149	Common attributes of native-state structures of proteins, disordered proteins, and amyloid. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 6883-8	11.5	44
148	Using the principle of entropy maximization to infer genetic interaction networks from gene expression patterns. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 19033-8	11.5	172
147	The origami of life. *Journal of Physics Condensed Matter*, **2006**, 18, 847-888	1.8	9
146	What determines the spectrum of protein native state structures?. *Proteins: Structure, Function and Bioinformatics*, **2006**, 63, 273-7	4.2	7

145	Comparing models of species abundance (Reply). *Nature*, **2006**, 441, E1-E2	50.4	10
144	Dynamical evolution of ecosystems. *Nature*, **2006**, 444, 926-8	50.4	93
143	Comment on "Revising the distributive networks models of West, Brown and Enquist (1997) and Banavar, Maritan and Rinaldo (1999): Metabolic inequity of living tissues provides clues for the observed allometric scaling rules" by Makarieva, Gorshkov and Li. *Journal of Theoretical Biology*, **2006**, 239, 391-3	2.3	7
142	Partially folded states of HIV-1 protease: Molecular dynamics simulations and ligand binding. *Computational and Theoretical Chemistry*, **2006**, 769, 111-121		3
141	A Novel Ensemble in Statistical Physics. *Journal of Statistical Physics*, **2006**, 123, 167-180	1.5	2
140	Linear One-Step Processes with Artificial Boundaries. *Journal of Statistical Physics*, **2006**, 125, 491-511	1.5	2
139	Non-neutral vegetation dynamics. *PLoS ONE*, **2006**, 1, e78	3.7	16
138	Coarse-grained model of proteins incorporating atomistic detail of the active site. *Physical Review Letters*, **2005**, 95, 218102	7.4	138
137	Species lifetime distribution for simple models of ecologies. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 15747-51	11.5	57
136	Proteins and polymers. *Journal of Chemical Physics*, **2005**, 122, 234910	3.9	11
135	Characterization and modeling of protein protein interaction networks. *Physica A: Statistical Mechanics and Its Applications*, **2005**, 352, 1-27	3.3	56
134	Geometrical model for the native-state folds of proteins. *Biophysical Chemistry*, **2005**, 115, 289-94	3.5	6
133	Density dependence explains tree species abundance and diversity in tropical forests. *Nature*, **2005**, 438, 658-61	50.4	250
132	A new interpolation formula for semiflexible polymers. *Biophysical Chemistry*, **2005**, 115, 251-4	3.5	16
131	Physics of thick polymers. *Journal of Polymer Science, Part B: Polymer Physics*, **2005**, 43, 650-679	2.6	19
130	What determines the structures of native folds of proteins?. *Journal of Physics Condensed Matter*, **2005**, 17, S1515-S1522	1.8	4
129	Pretransitional behavior of a water in liquid crystal microemulsion close to the demixing transition: evidence for intermicellar attraction mediated by paranematic fluctuations. *Journal of Chemical Physics*, **2005**, 122, 214721	3.9	17
128	Lattice tube model of proteins. *Physical Review Letters*, **2004**, 93, 238101	7.4	22

127	Organization of ecosystems in the vicinity of a novel phase transition. *Physical Review Letters*, **2004**, 92, 218703	7.4	15
126	Network structures from selection principles. *Physical Review Letters*, **2004**, 92, 198701	7.4	56
125	Unified perspective on proteins: a physics approach. *Physical Review E*, **2004**, 70, 041905	2.4	54
124	Geometry and symmetry presculpt the free-energy landscape of proteins. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 7960-4	11.5	169
123	Accurate and efficient description of protein vibrational dynamics: comparing molecular dynamics and Gaussian models. *Proteins: Structure, Function and Bioinformatics*, **2004**, 55, 635-45	4.2	146
122	Recognition of coarse-grained protein tertiary structure. *Proteins: Structure, Function and Bioinformatics*, **2004**, 55, 536-47	4.2	2
121	On network form and function. *Physica A: Statistical Mechanics and Its Applications*, **2004**, 340, 749-755	3.3	6
120	What can one learn from experiments about the elusive transition state?. *Protein Science*, **2004**, 13, 2446-57	6.6	23
119	Simulations of action of DNA topoisomerases to investigate boundaries and shapes of spaces of knots. *Biophysical Journal*, **2004**, 87, 2968-75	2.9	42
118	Coarse grained models: the kinetics of motor proteins. *Computational Materials Science*, **2004**, 30, 172-179	3.2	2
117	Modeling of Protein Interaction Networks. *Complexus*, **2003**, 1, 38-44		298
116	Tubes near the edge of compactness and folded protein structures *. *Journal of Physics Condensed Matter*, **2003**, 15, S1787-S1796	1.8	7
115	Geometry of Compact Tubes and Protein Structures. *Complexus*, **2003**, 1, 4-13		21
114	A knowledge-based scale for amino acid membrane propensity. *Proteins: Structure, Function and Bioinformatics*, **2003**, 50, 114-21	4.2	24
113	Self-Interactions of Strands and Sheets. *Journal of Statistical Physics*, **2003**, 110, 35-50	1.5	35
112	A comment on the protein folds as platonic forms. *Journal of Theoretical Biology*, **2003**, 223, 263-5	2.3	3
111	Assembly of protein tertiary structures from secondary structures using optimized potentials. *Proteins: Structure, Function and Bioinformatics*, **2003**, 52, 155-65	4.2	13
110	Elucidation of the disulfide-folding pathway of hirudin by a topology-based approach. *Proteins: Structure, Function and Bioinformatics*, **2003**, 53, 720-30	4.2	5

109	Neutral theory and relative species abundance in ecology. *Nature*, **2003**, 424, 1035-7	50.4	563
108	Physiology: Allometric cascades. *Nature*, **2003**, 421, 713-4; discussion 714	50.4	57
107	Global protein function prediction from protein-protein interaction networks. *Nature Biotechnology*, **2003**, 21, 697-700	44.5	494
106	Elasticity of Semiflexible Polymers with and without Self-Interactions. *Macromolecules*, **2003**, 36, 10095-10102	5.5	38
105	Colloquium: Geometrical approach to protein folding: a tube picture. *Reviews of Modern Physics*, **2003**, 75, 23-34	40.5	82
104	Geometry and physics of proteins. *Proteins: Structure, Function and Bioinformatics*, **2002**, 47, 315-22	4.2	61
103	Prediction of protein secondary structures from conformational biases. *Proteins: Structure, Function and Bioinformatics*, **2002**, 48, 558-65	4.2	5
102	Anisotropic effective interactions in a coarse-grained tube picture of proteins. *Proteins: Structure, Function and Bioinformatics*, **2002**, 49, 246-54	4.2	8
101	Crucial stages of protein folding through a solvable model: predicting target sites for enzyme-inhibiting drugs. *Protein Science*, **2002**, 11, 1878-87	6.3	16
100	Force dependent transition rates in chemical kinetics models for motor proteins. *Journal of Chemical Physics*, **2002**, 117, 10339-10349	3.9	10
99	Supply-demand balance and metabolic scaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 10506-9	11.5	172
98	Multiple Steering Molecular Dynamics Applied to Water Exchange at Alkali Ions. *Journal of Physical Chemistry B*, **2002**, 106, 13027-13032	3.4	15
97	The intracellular antibody capture technology (IACT): towards a consensus sequence for intracellular antibodies. *Journal of Molecular Biology*, **2002**, 317, 73-83	6.5	118
96	Energy landscape and native-state structure of proteins A simplified model. *Europhysics Letters*, **2002**, 58, 623-629	1.6	27
95	Elastic properties of proteins: insight on the folding process and evolutionary selection of native structures. *Journal of Molecular Biology*, **2002**, 321, 909-21	6.5	54
94	Folding pathways of prion and doppel. *Biophysical Journal*, **2002**, 83, 3533-41	2.9	39
93	Network allometry. *Geophysical Research Letters*, **2002**, 29, 3-1	4.9	46
92	Molecular dynamics studies on HIV-1 protease: Drug resistance and folding pathways. *Proteins: Structure, Function and Bioinformatics*, **2001**, 43, 365-372	4.2	33

91	Learning effective amino acid interactions through iterative stochastic techniques. *Proteins: Structure, Function and Bioinformatics*, **2001**, 42, 422-31	4.2	45
90	Computational approach to the protein-folding problem. *Proteins: Structure, Function and Bioinformatics*, **2001**, 42, 433-435	4.2	16
89	Scaling, Optimality, and Landscape Evolution. *Journal of Statistical Physics*, **2001**, 104, 1-48	1.5	79
88	Protein threading by learning. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 14350-5	11.5	24
87	Dynamic modeling of gene expression data. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 1693-8	11.5	240
86	Field-induced anti-nematic ordering in assemblies of anisotropically polarizable particles. *Europhysics Letters*, **2001**, 55, 362-368	1.6	4
85	Amino acid classes and the protein folding problem. *Journal of Chemical Physics*, **2001**, 114, 1420-1423	3.9	25
84	Force dependence of the Michaelis constant in a two-state ratchet model for molecular motors. *Physical Review Letters*, **2001**, 86, 1134-7	7.4	23
83	Role of native-state topology in the stabilization of intracellular antibodies. *Biophysical Journal*, **2001**, 81, 2935-45	2.9	10
82	A self-consistent knowledge-based approach to protein design. *Biophysical Journal*, **2001**, 80, 480-90	2.9	17
81	An optimal procedure to extract interaction potentials for protein folding. *Computational Materials Science*, **2001**, 20, 305-310	3.2	5
80	Computational approach to the protein-folding problem **2001**, 42, 433		2
79	Scoring functions in protein folding and design. *Protein Science*, **2000**, 9, 812-9	6.3	14
78	Recurrent oligomers in proteins: an optimal scheme reconciling accurate and concise backbone representations in automated folding and design studies. *Proteins: Structure, Function and Bioinformatics*, **2000**, 40, 662-74	4.2	60
77	Optimal shapes of compact strings. *Nature*, **2000**, 406, 287-90	50.4	239
76	reply: Rivers, blood and transportation networks. *Nature*, **2000**, 408, 160-160	50.4	9
75	Fundamental patterns underlying gene expression profiles: simplicity from complexity. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 8409-14	11.5	375
74	Deciphering the folding kinetics of transmembrane helical proteins. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 14229-34	11.5	10

73	A novel iterative strategy for protein design. *Journal of Chemical Physics*, **2000**, 112, 2050-2055	3.9	10
72	Topology of the fittest transportation network. *Physical Review Letters*, **2000**, 84, 4745-8	7.4	99
71	Role of secondary motifs in fast folding polymers: a dynamical variational principle. *Physical Review Letters*, **2000**, 84, 3009-12	7.4	31
70	Extraction of interaction potentials between amino acids from native protein structures. *Journal of Chemical Physics*, **2000**, 112, 9151-9166	3.9	26
69	Scaling behavior in a nonlocal and nonlinear diffusion equation. *Physical Review E*, **2000**, 62, R5879-82	2.4	4
68	Compactness, aggregation, and prionlike behavior of protein: A lattice model study. *Journal of Chemical Physics*, **2000**, 113, 5072	3.9	38
67	Finite Size Scaling in Ecology. *Physical Review Letters*, **1999**, 83, 4212-4214	7.4	33
66	Depletion forces in hard-sphere colloids. *Physical Review E*, **1999**, 59, R1339-R1342	2.4	14
65	Protein Structures and Optimal Folding from a Geometrical Variational Principle. *Physical Review Letters*, **1999**, 82, 3372-3375	7.4	119
64	A comparative study of existing and new design techniques for protein models. *Journal of Chemical Physics*, **1999**, 110, 9730-9738	3.9	16
63	Optimal paths and growth processes. *Physica A: Statistical Mechanics and Its Applications*, **1999**, 266, 291-298	3.3	2
62	Size and form in efficient transportation networks. *Nature*, **1999**, 399, 130-2	50.4	591
61	Strategies for protein folding and design. *Annals of Combinatorics*, **1999**, 3, 431-450	0.7	8
60	Folding Lennard-Jones proteins by a contact potential. *Proteins: Structure, Function and Bioinformatics*, **1999**, 37, 544-53	4.2	19
59	Determination of interaction potentials of amino acids from native protein structures: Tests on simple lattice models. *Journal of Chemical Physics*, **1999**, 110, 10123-10133	3.9	28
58	Models of Fractal River Basins. *Journal of Statistical Physics*, **1998**, 91, 1-15	1.5	44
57	Interaction potentials for protein folding. *Proteins: Structure, Function and Bioinformatics*, **1998**, 30, 244-8	4.2	32
56	Structure-based design of model proteins. *Proteins: Structure, Function and Bioinformatics*, **1998**, 31, 10-20	4.2	7

55	Scale Invariant Correlations in a Driven Dissipative Gas. *Physical Review Letters*, **1998**, 80, 4410-4413	7.4	27
54	Folding, Design, and Determination of Interaction Potentials Using Off-Lattice Dynamics of Model Heteropolymers. *Physical Review Letters*, **1998**, 81, 3287-3290	7.4	46
53	Variational Approach to Protein Design and Extraction of Interaction Potentials. *Physical Review Letters*, **1998**, 81, 2172-2175	7.4	33
52	Bethe approximation for a semiflexible polymer chain. *Physical Review E*, **1998**, 58, R5241-R5244	2.4	26
51	Steric Constraints in Model Proteins. *Physical Review Letters*, **1998**, 80, 5683-5686	7.4	23
50	Protein Design in a Lattice Model of Hydrophobic and Polar Amino Acids. *Physical Review Letters*, **1998**, 80, 2237-2240	7.4	41
49	Impurity solvation in a liquid. *Journal of Chemical Physics*, **1998**, 108, 2104-2110	3.9	
48	Randomly pinned landscape evolution. *Physical Review E*, **1997**, 55, R4865-R4868	2.4	27
47	Sculpting of a Fractal River Basin. *Physical Review Letters*, **1997**, 78, 4522-4525	7.4	63
46	sMean-field theory of sandpiles. *Physical Review E*, **1997**, 55, 1998-2000	2.4	9
45	Scaling Relationships in Agglomeration and Annihilation Models. *Physical Review Letters*, **1997**, 79, 3278-3281	7.4	7
44	Stability Threshold as a Selection Principle for Protein Design. *Physical Review Letters*, **1997**, 78, 3967-3970	7.4	30
43	Adhesion of solids. *Physical Review E*, **1997**, 56, 2626-2634	2.4	29
42	On Hack's Law. *Water Resources Research*, **1996**, 32, 3367-3374	5.4	169
41	Optimal path and directed percolation. *Physical Review E*, **1996**, 53, R2029-R2032	2.4	5
40	Continuum model for the growth of interfaces. *Physical Review E*, **1996**, 53, 759-778	2.4	31
39	Scaling laws for river networks. *Physical Review E*, **1996**, 53, 1510-1515	2.4	154
38	Stochastic growth equations and reparametrization invariance. *Reviews of Modern Physics*, **1996**, 68, 963-983	7.83	121

#	Title	IF	Cites
37	Interfacial roughening induced by phase separation. *Physical Review Letters*, **1996**, 76, 1106-1109	7.4	33
36	Optimal Protein Design Procedure. *Physical Review Letters*, **1996**, 77, 1901-1904	7.4	82
35	Thermodynamics of fractal networks. *Physical Review Letters*, **1996**, 76, 3364-3367	7.4	56
34	Scaling Properties of Suboptimal Interfaces. *Physical Review Letters*, **1996**, 77, 5288-5291	7.4	8
33	Invasion percolation and Eden growth: Geometry and universality. *Physical Review Letters*, **1996**, 76, 3754-3757	7.4	90
32	Continuum model for river networks. *Physical Review Letters*, **1995**, 75, 577-580	7.4	30
31	Morphology and scaling in continuum ballistic deposition. *Physical Review Letters*, **1995**, 74, 1783-1786	7.4	7
30	Real-space renormalization group for Langevin dynamics in absence of translational invariance. *Journal of Statistical Physics*, **1995**, 79, 649-668	1.5	5
29	Continuum approach to diffusion-limited-aggregation type of growth. *Physical Review E*, **1994**, 49, R4795-R4798	2.4	23
28	Optimal paths and domain walls in the strong disorder limit. *Physical Review Letters*, **1994**, 72, 2320-2323	7.4	129
27	Nematic-isotropic transition in porous media. *Physical Review Letters*, **1994**, 72, 4113-4116	7.4	63
26	Maritan and Banavar reply. *Physical Review Letters*, **1994**, 73, 2932	7.4	26
25	Spin-flip avalanches and dynamics of first order phase transitions. *Physical Review Letters*, **1994**, 72, 946	7.4	21
24	Weak non-self-averaging behavior for diffusion in a trapping environment. *Physical Review E*, **1994**, 49, 227-231	2.4	15
23	Dynamics of rough surfaces with an arbitrary topology. *Physical Review E*, **1994**, 49, R937-R940	2.4	5
22	Statistical mechanics of random paths on disordered lattices. *Journal of Statistical Physics*, **1994**, 75, 669-706	1.5	17
21	Chaos, noise, and synchronization. *Physical Review Letters*, **1994**, 72, 1451-1454	7.4	182
20	Molecular dynamics of phase separation in narrow channels. *Physical Review E*, **1993**, 47, R2265-R2268	2.4	23

19	Phase diagram of the frustrated gauge-invariant Ising model. *Physical Review B*, **1993**, 48, 932-935	3.3	3
18	Nonuniversal diffusion in a chain with deterministic local drifts. *Physical Review E*, **1993**, 47, R769-R771	2.4	1
17	Dynamical relaxation of the surface tension of miscible phases. *Physical Review Letters*, **1993**, 71, 3465-3468	7.4	17
16	Composition waves in confined geometries. *Physical Review E*, **1993**, 48, R2362-R2365	2.4	12
15	Scattering function for a model of interacting surfaces. *Physical Review E*, **1993**, 47, 411-418	2.4	9
14	Dynamics of phase separation of binary fluids. *Physical Review A*, **1992**, 45, R5347-R5350	2.6	62
13	Dynamics of growing interfaces. *Physical Review Letters*, **1992**, 69, 3193-3195	7.4	36
12	Critical behavior of two-dimensional vesicles in the deflated regime. *Physical Review A*, **1991**, 43, 5752-5754	2.6	24
11	Monte Carlo mean-field theory. *Physical Review Letters*, **1991**, 67, 1807	7.4	23
10	Ordering and phase transitions in random-field Ising systems. *Physical Review Letters*, **1991**, 67, 1821-1824	7.4	54
9	On skewed ARC plots of impedance of electrodes with an irreversible electrode process. *Electrochimica Acta*, **1990**, 35, 141-145	6.7	87
8	Deterministic fractal models for transport properties, inspired by d=2 random walks. *Physical Review A*, **1989**, 40, 5299-5304	2.6	2
7	Random walk and the ideal chain problem on self-similar structures. *Physical Review Letters*, **1989**, 62, 2845-2848	7.4	35
6	The spectrum of a one-dimensional hierarchical model. *Journal of Statistical Physics*, **1988**, 52, 595-608	1.5	19
5	Random walks with intersections: Static and dynamic fractal properties. *Physical Review A*, **1987**, 36, 2338-2351	2.6	20
4	Diffusion on two-dimensional random walks. *Physical Review Letters*, **1987**, 58, 1758-1760	7.4	24
3	Spectral dimension of a fractal structure with long-range interactions. *Physical Review B*, **1986**, 34, 456-459	3.3	21
2	Scaling Behavior of Self-Avoiding Random Surfaces. *Physical Review Letters*, **1984**, 53, 123-126	7.4	40

List of Publications