

Salvatore Torquato

List of Publications by Year in descending order

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Version: 2024-02-01

436
papers

36,275
citations

1798

103
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4545

171
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442
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docs citations

442
times ranked

15178
citing authors

#	ARTICLE	IF	CITATIONS
1	Subdiffusive wave transport and weak localization transition in three-dimensional stealthy hyperuniform disordered systems. <i>Physical Review B</i> , 2022, 105, .	1.1	13
2	Characterization of void space, large-scale structure, and transport properties of maximally random jammed packings of superballs. <i>Physical Review Materials</i> , 2022, 6, .	0.9	9
3	Dynamic Measure of Hyperuniformity and Nonhyperuniformity in Heterogeneous Media via the Diffusion Spreadability. <i>Physical Review Applied</i> , 2022, 17, .	1.5	8
4	Local order metrics for two-phase media across length scales*. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2022, 55, 274003.	0.7	7
5	Engineered disorder in photonics. <i>Nature Reviews Materials</i> , 2021, 6, 226-243.	23.3	129
6	Kinetic Frustration Effects on Dense Two-Dimensional Packings of Convex Particles and Their Structural Characteristics. <i>Journal of Physical Chemistry B</i> , 2021, 125, 2450-2464.	1.2	3
7	Nonlocal Effective Electromagnetic Wave Characteristics of Composite Media: Beyond the Quasistatic Regime. <i>Physical Review X</i> , 2021, 11, .	2.8	25
8	Structural characterization of many-particle systems on approach to hyperuniform states. <i>Physical Review E</i> , 2021, 103, 052126.	0.8	21
9	Local Number Fluctuations in Hyperuniform and Nonhyperuniform Systems: Higher-Order Moments and Distribution Functions. <i>Physical Review X</i> , 2021, 11, .	2.8	15
10	Swimming in circles can lead to exotic hyperuniform states of active living matter. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	4
11	Manifestations of metastable criticality in the long-range structure of model water glasses. <i>Nature Communications</i> , 2021, 12, 3398.	5.8	14
12	Critical pore radius and transport properties of disordered hard- and overlapping-sphere models. <i>Physical Review E</i> , 2021, 104, 014127.	0.8	9
13	Gap Sensitivity Reveals Universal Behaviors in Optimized Photonic Crystal and Disordered Networks. <i>Physical Review Letters</i> , 2021, 127, 037401.	2.9	12
14	Quantum phase transitions in long-range interacting hyperuniform spin chains in a transverse field. <i>Physical Review B</i> , 2021, 103, .	1.1	0
15	Characterizing the hyperuniformity of ordered and disordered two-phase media. <i>Physical Review E</i> , 2021, 103, 012123.	0.8	9
16	Understanding degeneracy of two-point correlation functions via Debye random media. <i>Physical Review E</i> , 2021, 104, 045306.	0.8	9
17	Diffusion spreadability as a probe of the microstructure of complex media across length scales. <i>Physical Review E</i> , 2021, 104, 054102.	0.8	14
18	Generation and structural characterization of Debye random media. <i>Physical Review E</i> , 2020, 102, 043310.	0.8	7

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19	Predicting permeability via statistical learning on higher-order microstructural information. Scientific Reports, 2020, 10, 15239.	1.6	28
20	Minimal statistical-mechanical model for multihyperuniform patterns in avian retina. Physical Review E, 2020, 102, 012134.	0.8	6
21	Optimized Large Hyperuniform Binary Colloidal Suspensions in Two Dimensions. Physical Review Letters, 2020, 125, 068002.	2.9	9
22	Sensitivity of pair statistics on pair potentials in many-body systems. Journal of Chemical Physics, 2020, 153, 124106.	1.2	19
23	Realizable hyperuniform and nonhyperuniform particle configurations with targeted spectral functions via effective pair interactions. Physical Review E, 2020, 101, 032124.	0.8	14
24	Cloaking the underlying long-range order of randomly perturbed lattices. Physical Review E, 2020, 101, 032118.	0.8	29
25	Predicting transport characteristics of hyperuniform porous media via rigorous microstructure-property relations. Advances in Water Resources, 2020, 140, 103565.	1.7	19
26	Multifunctional composites for elastic and electromagnetic wave propagation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8764-8774.	3.3	34
27	Effective elastic wave characteristics of composite media. New Journal of Physics, 2020, 22, 123050.	1.2	11
28	Nearest-neighbor functions for disordered stealthy hyperuniform many-particle systems. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 103302.	0.9	1
29	Hyperuniformity on spherical surfaces. Physical Review E, 2019, 100, 022107.	0.8	6
30	Self-Similar Dynamics of Nuclear Packing in the Early Drosophila Embryo. Biophysical Journal, 2019, 117, 743-750.	0.2	19
31	Phoamtonic designs yield sizeable 3D photonic band gaps. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23480-23486.	3.3	21
32	Structural degeneracy in pair distance distributions. Journal of Chemical Physics, 2019, 150, 204125.	1.2	10
33	Methodology to construct large realizations of perfectly hyperuniform disordered packings. Physical Review E, 2019, 99, 052141.	0.8	16
34	New tessellation-based procedure to design perfectly hyperuniform disordered dispersions for materials discovery. Acta Materialia, 2019, 168, 143-151.	3.8	20
35	Hidden multiscale order in the primes. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 135002.	0.7	22
36	Universal hidden order in amorphous cellular geometries. Nature Communications, 2019, 10, 811.	5.8	64

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37	Hyperuniformity order metric of Barlow packings. <i>Physical Review E</i> , 2019, 99, 022111.	0.8	6
38	Hyperuniformity of generalized random organization models. <i>Physical Review E</i> , 2019, 99, 022115.	0.8	11
39	Jammed hard-sphere hcp crystals permeated with trivacancy tunnels. <i>Journal of Applied Physics</i> , 2019, 126, 194901.	1.1	1
40	Hard convex lens-shaped particles: Characterization of dense disordered packings. <i>Physical Review E</i> , 2019, 100, 062902.	0.8	11
41	Hyperuniform disordered waveguides and devices for near infrared silicon photonics. <i>Scientific Reports</i> , 2019, 9, 20338.	1.6	22
42	Hyperuniformity and anti-hyperuniformity in one-dimensional substitution tilings. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019, 75, 3-13.	0.0	24
43	The structure factor of primes. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 115001.	0.7	10
44	Rational design of stealthy hyperuniform two-phase media with tunable order. <i>Physical Review E</i> , 2018, 97, 023311.	0.8	17
45	Effect of imperfections on the hyperuniformity of many-body systems. <i>Physical Review B</i> , 2018, 97, .	1.1	46
46	Disordered multihyperuniformity derived from binary plasmas. <i>Physical Review E</i> , 2018, 97, 010102.	0.8	13
47	Characterization of maximally random jammed sphere packings. III. Transport and electromagnetic properties via correlation functions. <i>Physical Review E</i> , 2018, 97, 012118.	0.8	21
48	Hyperuniform states of matter. <i>Physics Reports</i> , 2018, 745, 1-95.	10.3	259
49	Evolutionary-Optimized Photonic Network Structure in White Beetle Wing Scales. <i>Advanced Materials</i> , 2018, 30, e1702057.	11.1	95
50	Designing disordered hyperuniform two-phase materials with novel physical properties. <i>Acta Materialia</i> , 2018, 142, 152-161.	3.8	72
51	Multifunctional hyperuniform cellular networks: optimality, anisotropy and disorder. <i>Multifunctional Materials</i> , 2018, 1, 015001.	2.4	26
52	Hard convex lens-shaped particles: metastable, glassy and jammed states. <i>Soft Matter</i> , 2018, 14, 8205-8218.	1.2	8
53	Inversion problems for Fourier transforms of particle distributions. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018, 2018, 113302.	0.9	1
54	Uncovering multiscale order in the prime numbers via scattering. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018, 2018, 093401.	0.9	17

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55	Precise algorithms to compute surface correlation functions of two-phase heterogeneous media and their applications. <i>Physical Review E</i> , 2018, 98, 013307.	0.8	25
56	Perspective: Basic understanding of condensed phases of matter via packing models. <i>Journal of Chemical Physics</i> , 2018, 149, 020901.	1.2	99
57	Inverse Design of Colloidal Crystals via Optimized Patchy Interactions. <i>Journal of Physical Chemistry B</i> , 2018, 122, 8462-8468.	1.2	31
58	Binary mixtures of charged colloids: a potential route to synthesize disordered hyperuniform materials. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 17557-17562.	1.3	14
59	Light Localization in Local Isomorphism Classes of Quasicrystals. <i>Physical Review Letters</i> , 2018, 120, 247401.	2.9	14
60	Searching for crystal-ice domains in amorphous ices. <i>Physical Review Materials</i> , 2018, 2, .	0.9	37
61	Multifunctionality of particulate composites via cross-property maps. <i>Physical Review Materials</i> , 2018, 2, .	0.9	6
62	Percolation of disordered jammed sphere packings. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 085001.	0.7	43
63	Hyperuniformity of quasicrystals. <i>Physical Review B</i> , 2017, 95, .	1.1	50
64	The Weyl-Heisenberg ensemble: hyperuniformity and higher Landau levels. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 043103.	0.9	21
65	Hyperuniformity variation with quasicrystal local isomorphism class. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 204003.	0.7	11
66	Large-Scale Structure and Hyperuniformity of Amorphous Ices. <i>Physical Review Letters</i> , 2017, 119, 136002.	2.9	50
67	Classical many-particle systems with unique disordered ground states. <i>Physical Review E</i> , 2017, 96, 042146.	0.8	14
68	Can exotic disordered "stealthy" particle configurations tolerate arbitrarily large holes?. <i>Soft Matter</i> , 2017, 13, 6197-6207.	1.2	23
69	Effect of window shape on the detection of hyperuniformity via the local number variance. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 013402.	0.9	14
70	Random scalar fields and hyperuniformity. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	48
71	Disordered hyperuniformity in two-component nonadditive hard-disk plasmas. <i>Physical Review E</i> , 2017, 96, 062126.	0.8	22
72	The Weyl-Heisenberg ensemble: Statistical mechanics meets time-frequency analysis. , 2017, , .		0

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73	Disordered hyperuniform heterogeneous materials. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 414012.	0.7	46
74	Structural Characterization and Statistical-Mechanical Model of Epidermal Patterns. <i>Biophysical Journal</i> , 2016, 111, 2534-2545.	0.2	14
75	Extreme lattices: symmetries and decorrelation. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016, 2016, 113301.	0.9	6
76	Transport, geometrical, and topological properties of stealthy disordered hyperuniform two-phase systems. <i>Journal of Chemical Physics</i> , 2016, 145, 244109.	1.2	54
77	Characterization of maximally random jammed sphere packings. II. Correlation functions and density fluctuations. <i>Physical Review E</i> , 2016, 94, 022152.	0.8	18
78	Critical slowing down and hyperuniformity on approach to jamming. <i>Physical Review E</i> , 2016, 94, 012902.	0.8	54
79	Static structural signatures of nearly jammed disordered and ordered hard-sphere packings: Direct correlation function. <i>Physical Review E</i> , 2016, 94, 032902.	0.8	14
80	Hyperuniformity and its generalizations. <i>Physical Review E</i> , 2016, 94, 022122.	0.8	115
81	The Perfect Glass Paradigm: Disordered Hyperuniform Glasses Down to Absolute Zero. <i>Scientific Reports</i> , 2016, 6, 36963.	1.6	48
82	Inverse design of disordered stealthy hyperuniform spin chains. <i>Physical Review B</i> , 2016, 93, .	1.1	14
83	A Geometric-Structure Theory for Maximally Random Jammed Packings. <i>Scientific Reports</i> , 2015, 5, 16722.	1.6	17
84	Ground states of stealthy hyperuniform potentials. II. Stacked-slider phases. <i>Physical Review E</i> , 2015, 92, 022120.	0.8	26
85	Confined disordered strictly jammed binary sphere packings. <i>Physical Review E</i> , 2015, 92, 062207.	0.8	19
86	Ensemble Theory for Stealthy Hyperuniform Disordered Ground States. <i>Physical Review X</i> , 2015, 5, .	2.8	102
87	Ground states of stealthy hyperuniform potentials: I. Entropically favored configurations. <i>Physical Review E</i> , 2015, 92, 022119.	0.8	51
88	Effective diffusion coefficients in random packings of polydisperse hard spheres from two-point and three-point correlation functions. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	34
89	Hard convex lens-shaped particles: Densest-known packings and phase behavior. <i>Journal of Chemical Physics</i> , 2015, 143, 224506.	1.2	19
90	Diagnosing hyperuniformity in two-dimensional, disordered, jammed packings of soft spheres. <i>Physical Review E</i> , 2015, 91, 012302.	0.8	81

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91	The phase diagram of high-pressure superionic ice. Nature Communications, 2015, 6, 8156.	5.8	56
92	Existence of isostatic, maximally random jammed monodisperse hard-disk packings. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18436-18441.	3.3	68
93	Hyperuniform disordered photonic band gap devices for silicon photonics. , 2014, , .		1
94	Viscosity of bimodal suspensions with hard spherical particles. Journal of Applied Physics, 2014, 116, 184902.	1.1	17
95	Characterization of maximally random jammed sphere packings: Voronoi correlation functions. Physical Review E, 2014, 90, 052120.	0.8	28
96	Impact of microstructure on the effective diffusivity in random packings of hard spheres. Journal of Applied Physics, 2014, 116, .	1.1	63
97	Dense periodic packings of tori. Physical Review E, 2014, 89, 022133.	0.8	11
98	Avian photoreceptor patterns represent a disordered hyperuniform solution to a multiscale packing problem. Physical Review E, 2014, 89, 022721.	0.8	154
99	Accurate modeling and reconstruction of three-dimensional percolating filamentary microstructures from two-dimensional micrographs via dilation-erosion method. Materials Characterization, 2014, 89, 33-42.	1.9	63
100	Hyperuniform disordered photonic band gap silicon devices for optical interconnects. , 2014, , .		0
101	Marginal stability in jammed packings: Quasicontracts and weak contacts. Physical Review E, 2014, 90, 022114.	0.8	6
102	Equilibrium Phase Behavior and Maximally Random Jammed State of Truncated Tetrahedra. Journal of Physical Chemistry B, 2014, 118, 7981-7992.	1.2	48
103	A Cellular Automaton Model for Tumor Dormancy: Emergence of a Proliferative Switch. PLoS ONE, 2014, 9, e109934.	1.1	17
104	Disordered strictly jammed binary sphere packings attain an anomalously large range of densities. Physical Review E, 2013, 88, 022205.	0.8	65
105	Jammed lattice sphere packings. Physical Review E, 2013, 88, 062151.	0.8	22
106	Nonequilibrium static growing length scales in supercooled liquids on approaching the glass transition. Journal of Chemical Physics, 2013, 138, 12A508.	1.2	31
107	Exotic Ground States of Directional Pair Potentials via Collective-Density Variables. Journal of Statistical Physics, 2013, 150, 414-431.	0.5	8
108	Precise algorithm to generate random sequential addition of hard hyperspheres at saturation. Physical Review E, 2013, 88, 053312.	0.8	96

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109	Photonic band gap in isotropic hyperuniform disordered solids with low dielectric contrast. Optics Express, 2013, 21, 19972.	1.7	110
110	Communication: Designed diamond ground state via optimized isotropic monotonic pair potentials. Journal of Chemical Physics, 2013, 138, 061101.	1.2	48
111	Isotropic band gaps and freeform waveguides observed in hyperuniform disordered photonic solids. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15886-15891.	3.3	174
112	Hyperuniformity in amorphous silicon based on the measurement of the infinite-wavelength limit of the structure factor. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13250-13254.	3.3	65
113	Nearly hyperuniform network models of amorphous silicon. Physical Review B, 2013, 87, .	1.1	53
114	Detailed characterization of rattlers in exactly isostatic, strictly jammed sphere packings. Physical Review E, 2013, 88, 062208.	0.8	42
115	Efficient linear programming algorithm to generate the densest lattice sphere packings. Physical Review E, 2013, 87, 063303.	0.8	14
116	Evolution and morphology of microenvironment-enhanced malignancy of three-dimensional invasive solid tumors. Physical Review E, 2013, 87, 052707.	0.8	17
117	Effect of dimensionality on the percolation threshold of overlapping nonspherical hyperparticles. Physical Review E, 2013, 87, 022111.	0.8	30
118	Designer spin systems via inverse statistical mechanics. II. Ground-state enumeration and classification. Physical Review B, 2013, 88, .	1.1	7
119	Designer spin systems via inverse statistical mechanics. Physical Review B, 2013, 88, .	1.1	14
120	Probing the limitations of isotropic pair potentials to produce ground-state structural extremes via inverse statistical mechanics. Physical Review E, 2013, 88, 042309.	0.8	42
121	Optical cavities and waveguides in hyperuniform disordered photonic solids. Physical Review B, 2013, 87, .	1.1	66
122	Effect of dimensionality on the percolation thresholds of various d -dimensional lattices. Physical Review E, 2013, 87, .	0.8	17
123	Microstructural degeneracy associated with a two-point correlation function and its information content. Physical Review E, 2012, 85, 051140.	0.8	63
124	Nonequilibrium static diverging length scales on approaching a prototypical model glassy state. Physical Review E, 2012, 86, 021505.	0.8	28
125	Maximally dense packings of two-dimensional convex and concave noncircular particles. Physical Review E, 2012, 86, 031302.	0.8	39
126	Effect of dimensionality on the continuum percolation of overlapping hyperspheres and hypercubes. Journal of Chemical Physics, 2012, 136, 054106.	1.2	36

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127	Density of States for a Specified Correlation Function and the Energy Landscape. Physical Review Letters, 2012, 108, 080601.	2.9	55
128	Families of tessellations of space by elementary polyhedra via retessellations of face-centered-cubic and related tilings. Physical Review E, 2012, 86, 041141.	0.8	9
129	Quantitative characterization of the microstructure and transport properties of biopolymer networks. Physical Biology, 2012, 9, 036009.	0.8	40
130	Effect of dimensionality on the continuum percolation of overlapping hyperspheres and hypercubes. II. Simulation results and analyses. Journal of Chemical Physics, 2012, 137, 074106.	1.2	50
131	Densest binary sphere packings. Physical Review E, 2012, 85, 021130.	0.8	65
132	Organizing principles for dense packings of nonspherical hard particles: Not all shapes are created equal. Physical Review E, 2012, 86, 011102.	0.8	45
133	Hydration and percolation at the setting point. Cement and Concrete Research, 2012, 42, 665-672.	4.6	40
134	Diversity of dynamics and morphologies of invasive solid tumors. AIP Advances, 2012, 2, 11003.	0.6	20
135	Optimized monotonic convex pair potentials stabilize low-coordinated crystals. Soft Matter, 2011, 7, 2332.	1.2	40
136	Duality relations for the classical ground states of soft-matter systems. Soft Matter, 2011, 7, 3780.	1.2	7
137	Novel ground-state crystals with controlled vacancy concentrations: From kagomÃ© to honeycomb to stripes. Soft Matter, 2011, 7, 6194.	1.2	15
138	Hyperuniformity, quasi-long-range correlations, and void-space constraints in maximally random jammed particle packings. II. Anisotropy in particle shape. Physical Review E, 2011, 83, 051309.	0.8	33
139	Hyperuniformity, quasi-long-range correlations, and void-space constraints in maximally random jammed particle packings. I. Polydisperse spheres. Physical Review E, 2011, 83, 051308.	0.8	51
140	Toward an Ising model of cancer and beyond. Physical Biology, 2011, 8, 015017.	0.8	50
141	Nonuniversality of density and disorder in jammed sphere packings. Journal of Applied Physics, 2011, 109, .	1.1	46
142	Hyperuniform Long-Range Correlations are a Signature of Disordered Jammed Hard-Particle Packings. Physical Review Letters, 2011, 106, 178001.	2.9	121
143	New family of tilings of three-dimensional Euclidean space by tetrahedra and octahedra. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11009-11012.	3.3	20
144	Densest local sphere-packing diversity. II. Application to three dimensions. Physical Review E, 2011, 83, 011304.	0.8	17

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145	Phase Diagram and Structural Diversity of the Densest Binary Sphere Packings. Physical Review Letters, 2011, 107, 125501.	2.9	53
146	Spatial Organization and Correlations of Cell Nuclei in Brain Tumors. PLoS ONE, 2011, 6, e27323.	1.1	29
147	Rigidity of spherical codes. Geometry and Topology, 2011, 15, 2235-2273.	0.5	16
148	Communication: A packing of truncated tetrahedra that nearly fills all of space and its melting properties. Journal of Chemical Physics, 2011, 135, 151101.	1.2	28
149	High-dimensional generalizations of the kagom� and diamond crystals and the decorrelation principle for periodic sphere packings. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P10017.	0.9	12
150	Unusual ground states via monotonic convex pair potentials. Journal of Chemical Physics, 2011, 134, 164105.	1.2	33
151	Maximally random jammed packings of Platonic solids: Hyperuniform long-range correlations and isostaticity. Physical Review E, 2011, 84, 041309.	0.8	136
152	Improved reconstructions of random media using dilation and erosion processes. Physical Review E, 2011, 84, 056102.	0.8	55
153	Anomalous local coordination, density fluctuations, and void statistics in disordered hyperuniform many-particle ground states. Physical Review E, 2011, 83, 051133.	0.8	45
154	New bounds on the sedimentation velocity for hard, charged and adhesive hard-sphere colloids. Journal of Fluid Mechanics, 2011, 667, 403-425.	1.4	12
155	Inherent structures for soft long-range interactions in two-dimensional many-particle systems. Journal of Chemical Physics, 2011, 135, 054104.	1.2	10
156	Emergent Behaviors from a Cellular Automaton Model for Invasive Tumor Growth in Heterogeneous Microenvironments. PLoS Computational Biology, 2011, 7, e1002314.	1.5	94
157	Spherical codes, maximal local packing density, and the golden ratio. Journal of Mathematical Physics, 2010, 51, .	0.5	11
158	Effects of random link removal on the photonic band gaps of honeycomb networks. Applied Physics Letters, 2010, 97, .	1.5	23
159	Distinctive features arising in maximally random jammed packings of superballs. Physical Review E, 2010, 81, 041304.	0.8	94
160	Optimal Design of Heterogeneous Materials. Annual Review of Materials Research, 2010, 40, 101-129.	4.3	109
161	Robust algorithm to generate a diverse class of dense disordered and ordered sphere packings via linear programming. Physical Review E, 2010, 82, 061302.	0.8	84
162	Reformulation of the covering and quantizer problems as ground states of interacting particles. Physical Review E, 2010, 82, 056109.	0.8	40

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163	Jammed hard-particle packings: From Kepler to Bernal and beyond. <i>Reviews of Modern Physics</i> , 2010, 82, 2633-2672.	16.4	606
164	Exact constructions of a family of dense periodic packings of tetrahedra. <i>Physical Review E</i> , 2010, 81, 041310.	0.8	46
165	Phase behavior of colloidal superballs: Shape interpolation from spheres to cubes. <i>Physical Review E</i> , 2010, 81, 061105.	0.8	107
166	Geometrical ambiguity of pair statistics. II. Heterogeneous media. <i>Physical Review E</i> , 2010, 82, 011106.	0.8	39
167	Geometrical ambiguity of pair statistics: Point configurations. <i>Physical Review E</i> , 2010, 81, 011105.	0.8	39
168	Densest local sphere-packing diversity: General concepts and application to two dimensions. <i>Physical Review E</i> , 2010, 81, 041305.	0.8	14
169	Publisher's Note: Jammed hard-particle packings: From Kepler to Bernal and beyond [Rev. Mod. Phys. 82, 2633 (2010)]. <i>Reviews of Modern Physics</i> , 2010, 82, 3197-3197.	16.4	8
170	Growing heterogeneous tumors in silico. <i>Physical Review E</i> , 2009, 80, 051910.	0.8	18
171	Statistical properties of determinantal point processes in high-dimensional Euclidean spaces. <i>Physical Review E</i> , 2009, 79, 041108.	0.8	52
172	Interactions leading to disordered ground states and unusual low-temperature behavior. <i>Physical Review E</i> , 2009, 80, 031105.	0.8	14
173	Novel Low-Temperature Behavior in Classical Many-Particle Systems. <i>Physical Review Letters</i> , 2009, 103, 050602.	2.9	23
174	New classes of non-crystalline photonic band gap materials. , 2009, , .		0
175	A superior descriptor of random textures and its predictive capacity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 17634-17639.	3.3	251
176	Designer disordered materials with large, complete photonic band gaps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 20658-20663.	3.3	363
177	Hyperuniformity in point patterns and two-phase random heterogeneous media. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P12015.	0.9	147
178	Dense packings of the Platonic and Archimedean solids. <i>Nature</i> , 2009, 460, 876-879.	13.7	364
179	Complete band gaps in two-dimensional photonic quasicrystals. <i>Physical Review B</i> , 2009, 80, .	1.1	109
180	Dense packings of polyhedra: Platonic and Archimedean solids. <i>Physical Review E</i> , 2009, 80, 041104.	0.8	144

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181	Inverse optimization techniques for targeted self-assembly. <i>Soft Matter</i> , 2009, 5, 1157.	1.2	166
182	Method for obtaining upper bounds on photonic band gaps. <i>Physical Review B</i> , 2009, 80, .	1.1	7
183	Optimal packings of superballs. <i>Physical Review E</i> , 2009, 79, 041309.	0.8	129
184	Effective dielectric tensor for electromagnetic wave propagation in random media. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	39
185	Negative Poisson's Ratio Materials via Isotropic Interactions. <i>Physical Review Letters</i> , 2008, 101, 085501.	2.9	37
186	Estimates of the optimal density of sphere packings in high dimensions. <i>Journal of Mathematical Physics</i> , 2008, 49, .	0.5	31
187	Classical disordered ground states: Super-ideal gases and stealth and equi-luminous materials. <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	131
188	Simulating tumor growth in confined heterogeneous environments. <i>Physical Biology</i> , 2008, 5, 036010.	0.8	50
189	Gaussian core model phase diagram and pair correlations in high Euclidean dimensions. <i>Journal of Chemical Physics</i> , 2008, 128, 224505.	1.2	34
190	A Novel Three-Phase Model of Brain Tissue Microstructure. <i>PLoS Computational Biology</i> , 2008, 4, e1000152.	1.5	47
191	Point processes in arbitrary dimension from fermionic gases, random matrix theory, and number theory. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2008, 2008, P11019.	0.9	97
192	Optimized Structures for Photonic Quasicrystals. <i>Physical Review Letters</i> , 2008, 101, 073902.	2.9	96
193	Optimal Packings of Superdisks and the Role of Symmetry. <i>Physical Review Letters</i> , 2008, 100, 245504.	2.9	77
194	Modeling heterogeneous materials via two-point correlation functions. II. Algorithmic details and applications. <i>Physical Review E</i> , 2008, 77, 031135.	0.8	222
195	Tilings of space and superhomogeneous point processes. <i>Physical Review E</i> , 2008, 77, 031125.	0.8	20
196	New Duality Relations for Classical Ground States. <i>Physical Review Letters</i> , 2008, 100, 020602.	2.9	31
197	Toward the jamming threshold of sphere packings: Tunneled crystals. <i>Journal of Applied Physics</i> , 2007, 102, .	1.1	63
198	Synthetic diamond and wurtzite structures self-assemble with isotropic pair interactions. <i>Physical Review E</i> , 2007, 75, 031403.	0.8	58

#	ARTICLE	IF	CITATIONS
199	Modeling heterogeneous materials via two-point correlation functions: Basic principles. <i>Physical Review E</i> , 2007, 76, 031110.	0.8	289
200	Configurational entropy of binary hard-disk glasses: Nonexistence of an ideal glass transition. <i>Journal of Chemical Physics</i> , 2007, 127, 124509.	1.2	56
201	Negative Thermal Expansion in Single-Component Systems with Isotropic Interactions. <i>Journal of Physical Chemistry A</i> , 2007, 111, 12816-12821.	1.1	24
202	Underconstrained jammed packings of nonspherical hard particles: Ellipses and ellipsoids. <i>Physical Review E</i> , 2007, 75, 051304.	0.8	219
203	A variational level set approach for surface area minimization of triply-periodic surfaces. <i>Journal of Computational Physics</i> , 2007, 223, 711-730.	1.9	66
204	Calculating the free energy of nearly jammed hard-particle packings using molecular dynamics. <i>Journal of Computational Physics</i> , 2007, 225, 509-527.	1.9	17
205	Modulusâ€‘density scaling behaviour and framework architecture of nanoporous self-assembled silicas. <i>Nature Materials</i> , 2007, 6, 418-423.	13.3	159
206	Some Observations on the Random Packing of Hard Ellipsoids. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 6960-6965.	1.8	90
207	New Conjectural Lower Bounds on the Optimal Density of Sphere Packings. <i>Experimental Mathematics</i> , 2006, 15, 307-331.	0.5	125
208	Collective coordinate control of density distributions. <i>Physical Review E</i> , 2006, 74, 031104.	0.8	53
209	Do Binary Hard Disks Exhibit an Ideal Glass Transition?. <i>Physical Review Letters</i> , 2006, 96, 225502.	2.9	89
210	Necessary Conditions on Realizable Two-Point Correlation Functions of Random Mediaâ€‘. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 6923-6928.	1.8	54
211	Packing hyperspheres in high-dimensional Euclidean spaces. <i>Physical Review E</i> , 2006, 74, 041127.	0.8	314
212	On the realizability of pair correlation functions. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 360, 21-36.	1.2	33
213	Modeling the effects of vasculature evolution on early brain tumor growth. <i>Journal of Theoretical Biology</i> , 2006, 243, 517-531.	0.8	93
214	Exactly solvable disordered sphere-packing model in arbitrary-dimensional Euclidean spaces. <i>Physical Review E</i> , 2006, 73, 031106.	0.8	57
215	Designed interaction potentials via inverse methods for self-assembly. <i>Physical Review E</i> , 2006, 73, 011406.	0.8	95
216	Self-assembly of the simple cubic lattice with an isotropic potential. <i>Physical Review E</i> , 2006, 74, 021404.	0.8	55

#	ARTICLE	IF	CITATIONS
217	Random sequential addition of hard spheres in high Euclidean dimensions. Physical Review E, 2006, 74, 061308.	0.8	121
218	Tetratic order in the phase behavior of a hard-rectangle system. Physical Review B, 2006, 73, .	1.1	132
219	Packing, tiling, and covering with tetrahedra. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10612-10617.	3.3	124
220	New directions in mechanics. Mechanics of Materials, 2005, 37, 231-259.	1.7	118
221	Neighbor list collision-driven molecular dynamics simulation for nonspherical hard particles. I. Algorithmic details. Journal of Computational Physics, 2005, 202, 737-764.	1.9	279
222	Neighbor list collision-driven molecular dynamics simulation for nonspherical hard particles.. Journal of Computational Physics, 2005, 202, 765-793.	1.9	143
223	Manufacturable extremal low-dielectric, high-stiffness porous materials. Journal of Applied Physics, 2005, 97, 124103.	1.1	13
224	Experiments on Random Packings of Ellipsoids. Physical Review Letters, 2005, 94, 198001.	2.9	210
225	Unexpected Density Fluctuations in Jammed Disordered Sphere Packings. Physical Review Letters, 2005, 95, 090604.	2.9	209
226	Realizability issues for iso-g(2)processes. Molecular Physics, 2005, 103, 2943-2949.	0.8	14
227	Optimized Interactions for Targeted Self-Assembly: Application to a Honeycomb Lattice. Physical Review Letters, 2005, 95, 228301.	2.9	121
228	Pair correlation function characteristics of nearly jammed disordered and ordered hard-sphere packings. Physical Review E, 2005, 71, 011105.	0.8	291
229	Optimal Bounds on the Trapping Constant and Permeability of Porous Media. Physical Review Letters, 2004, 92, 255505.	2.9	51
230	Voronoi and void statistics for superhomogeneous point processes. Physical Review E, 2004, 70, 041105.	0.8	31
231	Concerning maximal packing arrangements of binary disk mixtures. Physica A: Statistical Mechanics and Its Applications, 2004, 342, 428-446.	1.2	34
232	A linear programming algorithm to test for jamming in hard-sphere packings. Journal of Computational Physics, 2004, 197, 139-166.	1.9	102
233	Minimal surfaces and multifunctionality. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 1849-1856.	1.0	115
234	Unusually Dense Crystal Packings of Ellipsoids. Physical Review Letters, 2004, 92, 255506.	2.9	270

#	ARTICLE	IF	CITATIONS
235	Pair Correlation Function Realizability: A Lattice Model Implications. Journal of Physical Chemistry B, 2004, 108, 19589-19594.	1.2	18
236	Jamming in hard sphere and disk packings. Journal of Applied Physics, 2004, 95, 989-999.	1.1	186
237	Improving the Density of Jammed Disordered Packings Using Ellipsoids. Science, 2004, 303, 990-993.	6.0	1,069
238	Constraints on collective density variables: Two dimensions. Physical Review E, 2004, 70, 046122.	0.8	109
239	Simulated properties of Kagomé and tetragonal truss core panels. International Journal of Solids and Structures, 2003, 40, 6989-6998.	1.3	178
240	Breakdown of elasticity theory for jammed hard-particle packings: conical nonlinear constitutive theory. International Journal of Solids and Structures, 2003, 40, 7143-7153.	1.3	38
241	Energy-efficient actuation in infinite lattice structures. Journal of the Mechanics and Physics of Solids, 2003, 51, 1459-1475.	2.3	22
242	Quantification of order in the Lennard-Jones system. Journal of Chemical Physics, 2003, 118, 2256-2263.	1.2	124
243	Local density fluctuations, hyperuniformity, and order metrics. Physical Review E, 2003, 68, 041113.	0.8	492
244	Aspects of correlation function realizability. Journal of Chemical Physics, 2003, 119, 7065-7074.	1.2	43
245	Lattice-based random jammed configurations for hard particles. Physical Review E, 2003, 67, 031107.	0.8	17
246	Publisher's Note: Local density fluctuations, hyperuniformity, and order metrics [Phys. Rev. E68, 041113 (2003)]. Physical Review E, 2003, 68, .	0.8	26
247	Strong-contrast expansions and approximations for the effective conductivity of isotropic multiphase composites. Journal of Applied Physics, 2003, 94, 6591-6602.	1.1	78
248	Optimal design of manufacturable three-dimensional composites with multifunctional characteristics. Journal of Applied Physics, 2003, 94, 5748-5755.	1.1	114
249	Equi-g(r) sequence of systems derived from the square-well potential. Journal of Chemical Physics, 2002, 117, 297-307.	1.2	25
250	Prediction of trapping rates in mixtures of partially absorbing spheres. Journal of Chemical Physics, 2002, 116, 10589-10597.	1.2	17
251	Cooperative Origin of Low-Density Domains in Liquid Water. Physical Review Letters, 2002, 89, 215503.	2.9	103
252	Optimal and Manufacturable Two-dimensional, Kagomé-like Cellular Solids. Journal of Materials Research, 2002, 17, 137-144.	1.2	115

#	ARTICLE	IF	CITATIONS
253	Comment on "Observations on an equation of state for water confined in narrow slit-pores". J. Chem. Phys. 116, 2565 (2002)]. Journal of Chemical Physics, 2002, 117, 8162-8163.	1.2	3
254	Diversity of order and densities in jammed hard-particle packings. Physical Review E, 2002, 66, 041109.	0.8	165
255	Computer generation of dense polydisperse sphere packings. Journal of Chemical Physics, 2002, 117, 8212-8218.	1.2	135
256	Statistical Description of Microstructures. Annual Review of Materials Research, 2002, 32, 77-111.	4.3	210
257	Random Heterogeneous Materials. Interdisciplinary Applied Mathematics, 2002, , .	0.2	1,853
258	Multifunctional Composites: Optimizing Microstructures for Simultaneous Transport of Heat and Electricity. Physical Review Letters, 2002, 89, 266601.	2.9	223
259	Statistical mechanical models with effective potentials: Definitions, applications, and thermodynamic consequences. Journal of Chemical Physics, 2002, 117, 288-296.	1.2	78
260	A Cellular Automaton Model of Brain Tumor Treatment and Resistance. Journal of Theoretical Medicine, 2002, 4, 223-239.	0.5	29
261	Controlling the Short-Range Order and Packing Densities of Many-Particle Systems. Journal of Physical Chemistry B, 2002, 106, 8354-8359.	1.2	60
262	Random Heterogeneous Materials: Microstructure and Macroscopic Properties. Applied Mechanics Reviews, 2002, 55, B62-B63.	4.5	357
263	Effective-medium approximation for composite media: Realizable single-scale dispersions. Journal of Applied Physics, 2001, 89, 1725.	1.1	51
264	Multiplicity of Generation, Selection, and Classification Procedures for Jammed Hard-Particle Packings. Journal of Physical Chemistry B, 2001, 105, 11849-11853.	1.2	150
265	Iso-g(2) Processes in Equilibrium Statistical Mechanics. Journal of Physical Chemistry B, 2001, 105, 6592-6597.	1.2	25
266	Globally and locally minimal weight spanning tree networks. Physica A: Statistical Mechanics and Its Applications, 2001, 301, 601-619.	1.2	10
267	Pattern of self-organization in tumour systems: complex growth dynamics in a novel brain tumour spheroid model. Cell Proliferation, 2001, 34, 115-134.	2.4	187
268	Designing composite microstructures with targeted properties. Journal of Materials Research, 2001, 16, 280-285.	1.2	46
269	Generating microstructures with specified correlation functions. Journal of Applied Physics, 2001, 89, 53-60.	1.1	79
270	Thermodynamic implications of confinement for a waterlike fluid. Journal of Chemical Physics, 2001, 114, 2401-2418.	1.2	143

#	ARTICLE	IF	CITATIONS
271	Simulated Brain Tumor Growth Dynamics Using a Three-Dimensional Cellular Automaton. Journal of Theoretical Biology, 2000, 203, 367-382.	0.8	379
272	Emergence of a Subpopulation in a Computational Model of Tumor Growth. Journal of Theoretical Biology, 2000, 207, 431-441.	0.8	77
273	Modeling of physical properties of composite materials. International Journal of Solids and Structures, 2000, 37, 411-422.	1.3	131
274	Hard knock for thermodynamics. Nature, 2000, 405, 521-523.	13.7	57
275	Cellular automaton of idealized brain tumor growth dynamics. BioSystems, 2000, 55, 119-127.	0.9	90
276	Triangle Distribution and Equation of State for Classical Rigid Disks. Journal of Statistical Physics, 2000, 100, 49-72.	0.5	16
277	Towards a quantification of disorder in materials: Distinguishing equilibrium and glassy sphere packings. Physical Review E, 2000, 62, 993-1001.	0.8	258
278	Effective elastic and transport properties of regular honeycombs for all densities. Journal of Materials Research, 2000, 15, 1985-1993.	1.2	37
279	Comment on "Walker diffusion method for calculation of transport properties of composite materials". Physical Review E, 2000, 61, 4659-4660.	0.8	9
280	Equation of state of the rigid disk fluid from its triangle distribution. Journal of Chemical Physics, 2000, 113, 10186-10190.	1.2	6
281	Efficient measurement of the percolation threshold for fully penetrable discs. Journal of Physics A, 2000, 33, L399-L407.	1.6	177
282	Nonequilibrium hard-disk packings with controlled orientational order. Journal of Chemical Physics, 2000, 113, 4844.	1.2	51
283	Is Random Close Packing of Spheres Well Defined?. Physical Review Letters, 2000, 84, 2064-2067.	2.9	1,173
284	Stochastic reconstruction of sandstones. Physical Review E, 2000, 62, 893-899.	0.8	186
285	Matrix laminate composites: Realizable approximations for the effective moduli of piezoelectric dispersions. Journal of Materials Research, 1999, 14, 49-63.	1.2	8
286	Chord-distribution functions of three-dimensional random media: Approximate first-passage times of Gaussian processes. Physical Review E, 1999, 59, 4953-4963.	0.8	74
287	Exact conditions on physically realizable correlation functions of random media. Journal of Chemical Physics, 1999, 111, 8832-8837.	1.2	46
288	Percolation for a model of statistically inhomogeneous random media. Journal of Chemical Physics, 1999, 111, 5947-5954.	1.2	17

#	ARTICLE	IF	CITATIONS
289	Local volume fraction fluctuations in periodic heterogeneous media. Journal of Chemical Physics, 1999, 110, 3215-3219.	1.2	9
290	A single-bond approach to orientation-dependent interactions and its implications for liquid water. Journal of Chemical Physics, 1999, 111, 2647-2656.	1.2	157
291	Effective conductivity, dielectric constant, and diffusion coefficient of digitized composite media via first-passage-time equations. Journal of Applied Physics, 1999, 85, 1560-1571.	1.1	72
292	Scale effects on the elastic behavior of periodic and hierarchical two-dimensional composites. Journal of the Mechanics and Physics of Solids, 1999, 47, 1509-1542.	2.3	107
293	Making Negative Poisson's Ratio Microstructures by Soft Lithography. Advanced Materials, 1999, 11, 1186-1189.	11.1	126
294	Design of smart composite materials using topology optimization. Smart Materials and Structures, 1999, 8, 365-379.	1.8	153
295	Generating random media from limited microstructural information via stochastic optimization. Journal of Applied Physics, 1999, 86, 3428-3437.	1.1	117
296	Elastic Properties and Structure of Interpenetrating Boron Carbide/Aluminum Multiphase Composites. Journal of the American Ceramic Society, 1999, 82, 1263-1268.	1.9	38
297	Effective mechanical and transport properties of cellular solids. International Journal of Mechanical Sciences, 1998, 40, 71-82.	3.6	171
298	Morphology and effective properties of disordered heterogeneous media. International Journal of Solids and Structures, 1998, 35, 2385-2406.	1.3	78
299	First-Passage Percolation, Semi-Directed Bernoulli Percolation, and Failure in Brittle Materials. Journal of Statistical Physics, 1998, 91, 603-623.	0.5	1
300	Free volume in the hard sphere liquid. Molecular Physics, 1998, 95, 289-297.	0.8	112
301	Effective stiffness tensor of composite media : II. Applications to isotropic dispersions. Journal of the Mechanics and Physics of Solids, 1998, 46, 1411-1440.	2.3	159
302	New method to generate three-point bounds on effective properties of composites: Application to viscoelasticity. Journal of the Mechanics and Physics of Solids, 1998, 46, 749-783.	2.3	13
303	Density fluctuations in many-body systems. Physical Review E, 1998, 58, 7369-7380.	0.8	30
304	Reconstructing random media. Physical Review E, 1998, 57, 495-506.	0.8	693
305	Structural precursor to freezing in the hard-disk and hard-sphere systems. Physical Review E, 1998, 58, 3083-3088.	0.8	147
306	Effective energy of nonlinear elastic and conducting composites: Approximations and cross-property bounds. Journal of Applied Physics, 1998, 84, 5969-5976.	1.1	5

#	ARTICLE	IF	CITATIONS
307	Reconstructing random media. II. Three-dimensional media from two-dimensional cuts. Physical Review E, 1998, 58, 224-233.	0.8	446
308	New approximation for the effective energy of nonlinear conducting composites. Journal of Applied Physics, 1998, 84, 301-305.	1.1	7
309	Hard-sphere statistics along the metastable amorphous branch. Physical Review E, 1998, 58, 532-537.	0.8	55
310	Electric-field distribution in composite media. Physical Review B, 1998, 58, R11829-R11832.	1.1	21
311	On the design of 1D piezocomposites using topology optimization. Journal of Materials Research, 1998, 13, 1038-1048.	1.2	217
312	Microstructure functions for a model of statistically inhomogeneous random media. Physical Review E, 1997, 55, 1558-1565.	0.8	45
313	Exact Expression for the Effective Elastic Tensor of Disordered Composites. Physical Review Letters, 1997, 79, 681-684.	2.9	47
314	Electric-field fluctuations in random dielectric composites. Physical Review B, 1997, 56, 8060-8068.	1.1	44
315	Universal scaling for diffusion-controlled reactions among traps. Journal of Chemical Physics, 1997, 106, 8814-8820.	1.2	37
316	Local volume fraction fluctuations in random media. Journal of Chemical Physics, 1997, 106, 2741-2751.	1.2	40
317	Precise determination of the critical threshold and exponents in a three-dimensional continuum percolation model. Journal of Physics A, 1997, 30, L585-L592.	1.6	222
318	Clustering in a Continuum Percolation Model. Advances in Applied Probability, 1997, 29, 327-336.	0.4	6
319	Optimal design of 1-3 composite piezoelectrics. Structural Optimization, 1997, 13, 23-28.	0.7	27
320	On the use of homogenization theory to design optimal piezocomposites for hydrophone applications. Journal of the Mechanics and Physics of Solids, 1997, 45, 689-708.	2.3	98
321	Design of materials with extreme thermal expansion using a three-phase topology optimization method. Journal of the Mechanics and Physics of Solids, 1997, 45, 1037-1067.	2.3	808
322	Thermal expansion of isotropic multiphase composites and polycrystals. Journal of the Mechanics and Physics of Solids, 1997, 45, 1223-1252.	2.3	76
323	Effective stiffness tensor of composite media. I. Exact series expansions. Journal of the Mechanics and Physics of Solids, 1997, 45, 1421-1448.	2.3	169
324	Reconstruction of the Structure of Dispersions. Journal of Colloid and Interface Science, 1997, 186, 467-476.	5.0	254

#	ARTICLE	IF	CITATIONS
325	Computer simulations of dense hard-sphere systems. Journal of Chemical Physics, 1996, 105, 9258-9265.	1.2	251
326	Morphology and physical properties of Fontainebleau sandstone via a tomographic analysis. Journal of Geophysical Research, 1996, 101, 17497-17506.	3.3	136
327	Lineal measures of clustering in overlapping particle systems. Physical Review E, 1996, 54, 4027-4036.	0.8	25
328	Clustering properties of d-dimensional overlapping spheres. Physical Review E, 1996, 54, 5331-5339.	0.8	38
329	Phase-interchange relations for the elastic moduli of two-phase composites. International Journal of Engineering Science, 1996, 34, 739-760.	2.7	8
330	Bounds on the effective moduli of cracked materials. Journal of the Mechanics and Physics of Solids, 1996, 44, 233-242.	2.3	50
331	Metastability and Crystallization in Hard-Sphere Systems. Physical Review Letters, 1996, 77, 4198-4201.	2.9	178
332	Structure and transport properties of a porous magnetic gel via x-ray microtomography. Physical Review E, 1996, 54, 2663-2669.	0.8	75
333	Composites with extremal thermal expansion coefficients. Applied Physics Letters, 1996, 69, 3203-3205.	1.5	317
334	Nearest-neighbor statistics in a one-dimensional random sequential adsorption process. Physical Review E, 1996, 53, 450-457.	0.8	14
335	Microstructure and conductivity of hierarchical laminate composites. Physical Review E, 1996, 53, 4368-4378.	0.8	11
336	Rigorous Link Between the Electrical and Mechanical Properties of Composite Materials. Materials Research Society Symposia Proceedings, 1995, 411, 387.	0.1	0
337	Exact determination of the two-point cluster function for one-dimensional continuum percolation. Journal of Statistical Physics, 1995, 78, 827-839.	0.5	19
338	Algorithm to compute void statistics for random arrays of disks. Physical Review E, 1995, 52, 2635-2643.	0.8	17
339	Nearest-neighbor statistics for packings of hard spheres and disks. Physical Review E, 1995, 51, 3170-3182.	0.8	249
340	Simulation of diffusion and trapping in digitized heterogeneous media. Journal of Applied Physics, 1995, 77, 955-964.	1.1	26
341	Effect of the Interface on the Properties of Composite Media. Physical Review Letters, 1995, 75, 4067-4070.	2.9	206
342	Mean Nearest-Neighbor Distance in Random Packings of Hard D-Dimensional Spheres. Physical Review Letters, 1995, 74, 2156-2159.	2.9	88

#	ARTICLE	IF	CITATIONS
343	New bounds on the elastic moduli of suspensions of spheres. Journal of Applied Physics, 1995, 77, 4361-4372.	1.1	17
344	Extraction of morphological quantities from a digitized medium. Journal of Applied Physics, 1995, 77, 6087-6099.	1.1	92
345	Universal scaling of fluid permeability for sphere packings. Physical Review E, 1994, 50, 403-408.	0.8	172
346	Transport and diffusion in three-dimensional composite media. Physica A: Statistical Mechanics and Its Applications, 1994, 207, 28-36.	1.2	70
347	Unified methodology to quantify the morphology and properties of inhomogeneous media. Physica A: Statistical Mechanics and Its Applications, 1994, 207, 79-91.	1.2	20
348	Macroscopic Behavior of Random Media From the Microstructure. Applied Mechanics Reviews, 1994, 47, S29-S37.	4.5	8
349	Chord-length distribution function for two-phase random media. Physical Review E, 1993, 47, 2950-2953.	0.8	184
350	Chord-length and free-path distribution functions for many-body systems. Journal of Chemical Physics, 1993, 98, 6472-6482.	1.2	64
351	Effective conductivity of composites containing spheroidal inclusions: Comparison of simulations with theory. Journal of Applied Physics, 1993, 74, 1844-1854.	1.1	24
352	Cross-property relations and permeability estimation in model porous media. Physical Review E, 1993, 48, 4584-4591.	0.8	150
353	Determining elastic behavior of composites by the boundary element method. Journal of Applied Physics, 1993, 74, 159-170.	1.1	131
354	Coarse-graining procedure to generate and analyze heterogeneous materials: Theory. Physical Review E, 1993, 48, 4492-4500.	0.8	21
355	Link between the conductivity and elastic moduli of composite materials. Physical Review Letters, 1993, 71, 2927-2930.	2.9	62
356	Lineal-path function for random heterogeneous materials. II. Effect of polydispersivity. Physical Review A, 1992, 45, 7292-7301.	1.0	42
357	Diffusion of finite-sized Brownian particles in porous media. Journal of Chemical Physics, 1992, 96, 1498-1503.	1.2	70
358	Cross-property relations for momentum and diffusional transport in porous media. Journal of Applied Physics, 1992, 72, 2612-2619.	1.1	26
359	Effective conductivity of suspensions of overlapping spheres. Journal of Applied Physics, 1992, 71, 2727-2735.	1.1	63
360	Lineal-path function for random heterogeneous materials. Physical Review A, 1992, 45, 922-929.	1.0	215

#	ARTICLE	IF	CITATIONS
361	Nearest-surface distribution functions for polydispersed particle systems. <i>Physical Review A</i> , 1992, 45, 5530-5544.	1.0	214
362	Improved Bounds on the Effective Elastic Moduli of Random Arrays of Cylinders. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1992, 59, 1-6.	1.1	77
363	Rigorous link between fluid permeability, electrical conductivity, and relaxation times for transport in porous media. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 2529-2540.	1.6	194
364	Random Heterogeneous Media: Microstructure and Improved Bounds on Effective Properties. <i>Applied Mechanics Reviews</i> , 1991, 44, 37-76.	4.5	585
365	Diffusion and reaction in heterogeneous media: Pore size distribution, relaxation times, and mean survival time. <i>Journal of Chemical Physics</i> , 1991, 95, 6477-6489.	1.2	122
366	Diffusion and geometric effects in passive advection by random arrays of vortices. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991, 3, 1880-1891.	1.6	10
367	Diffusion and reaction among traps: some theoretical and simulation results. <i>Journal of Statistical Physics</i> , 1991, 65, 1173-1206.	0.5	40
368	Trapping and flow among random arrays of oriented spheroidal inclusions. <i>Journal of Chemical Physics</i> , 1991, 94, 5592-5598.	1.2	31
369	Trapping constant, thermal conductivity, and the microstructure of suspensions of oriented spheroids. <i>Journal of Chemical Physics</i> , 1991, 94, 4453-4462.	1.2	39
370	General formalism to characterize the microstructure of polydispersed random media. <i>Physical Review A</i> , 1991, 43, 2078-2080.	1.0	22
371	Trapping of finite-sized Brownian particles in porous media. <i>Journal of Chemical Physics</i> , 1991, 95, 2838-2841.	1.2	23
372	First-passage-time calculation of the conductivity of continuum models of multiphase composites. <i>Physical Review A</i> , 1991, 43, 3198-3201.	1.0	19
373	Improved bounds on the effective conductivity of high-contrast suspensions. <i>Journal of Applied Physics</i> , 1991, 69, 7118-7125.	1.1	14
374	Effective conductivity of suspensions of hard spheres by Brownian motion simulation. <i>Journal of Applied Physics</i> , 1991, 69, 2280-2289.	1.1	113
375	Improved bounds on elastic and transport properties of fiber-reinforced composites: Effect of polydispersity in fiber radius. <i>Journal of Applied Physics</i> , 1991, 69, 1948-1955.	1.1	18
376	Rigorous bounds on the fluid permeability: Effect of polydispersity in grain size. <i>Physics of Fluids A, Fluid Dynamics</i> , 1990, 2, 487-490.	1.6	32
377	Comparison of analytic and numerical results for the mean cluster density in continuum percolation. <i>Journal of Chemical Physics</i> , 1990, 93, 5128-5139.	1.2	21
378	Computer simulations of nearest-neighbor distribution functions and related quantities for hard-sphere systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1990, 167, 361-383.	1.2	46

#	ARTICLE	IF	CITATIONS
379	Relationship between permeability and diffusion-controlled trapping constant of porous media. Physical Review Letters, 1990, 64, 2644-2646.	2.9	84
380	Nearest-neighbor distribution functions in many-body systems. Physical Review A, 1990, 41, 2059-2075.	1.0	248
381	Effective conductivity of hard-sphere dispersions. Journal of Applied Physics, 1990, 68, 5486-5493.	1.1	62
382	Monte Carlo study of correlated continuum percolation: Universality and percolation thresholds. Physical Review A, 1990, 41, 5338-5344.	1.0	72
383	Two-point probability function for distributions of oriented hard ellipsoids. Journal of Chemical Physics, 1990, 93, 5912-5917.	1.2	29
384	Bounds on the effective properties of polydispersed suspensions of spheres: An evaluation of two relevant morphological parameters. Journal of Applied Physics, 1990, 67, 6088-6098.	1.1	31
385	Monte Carlo calculations of connectedness and mean cluster size for bidispersions of overlapping spheres. Journal of Chemical Physics, 1990, 93, 5998-6002.	1.2	4
386	Bounds on the thermoelastic properties of suspensions of spheres. Journal of Applied Physics, 1990, 67, 7223-7227.	1.1	6
387	Conductivity tensor of anisotropic composite media from the microstructure. Journal of Applied Physics, 1990, 67, 1145-1155.	1.1	45
388	n-point probability functions for a lattice model of heterogeneous media. Physical Review B, 1990, 42, 4453-4459.	1.1	20
389	Determination of the effective conductivity of heterogeneous media by Brownian motion simulation. Journal of Applied Physics, 1990, 68, 3892-3903.	1.1	134
390	Local volume fraction fluctuations in heterogeneous media. Journal of Chemical Physics, 1990, 93, 3452-3459.	1.2	85
391	Photographic granularity: mathematical formulation and effect of impenetrability of grains. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1990, 7, 717.	0.8	20
392	Diffusion-controlled reactions among spherical traps: Effect of polydispersity in trap size. Physical Review B, 1989, 40, 7101-7108.	1.1	25
393	Diffusion-controlled reactions. II. Further bounds on the rate constant. Journal of Chemical Physics, 1989, 90, 1644-1647.	1.2	58
394	New bounds on the permeability of a random array of spheres. Physics of Fluids A, Fluid Dynamics, 1989, 1, 199-207.	1.6	10
395	Computer simulation results for bounds on the effective conductivity of composite media. Journal of Applied Physics, 1989, 65, 893-900.	1.1	33
396	Measure of clustering in continuum percolation: Computer simulation of the two-point cluster function. Journal of Chemical Physics, 1989, 91, 1173-1178.	1.2	27

#	ARTICLE	IF	CITATIONS
397	Effective conductivity of anisotropic two-phase composite media. <i>Physical Review B</i> , 1989, 39, 4504-4515.	1.1	108
398	Efficient simulation technique to compute effective properties of heterogeneous media. <i>Applied Physics Letters</i> , 1989, 55, 1847-1849.	1.5	121
399	Random-walk simulation of diffusion-controlled processes among static traps. <i>Physical Review B</i> , 1989, 39, 11833-11839.	1.1	63
400	Flow in random porous media: mathematical formulation, variational principles, and rigorous bounds. <i>Journal of Fluid Mechanics</i> , 1989, 206, 25-46.	1.4	164
401	Computer simulation results for the two-point probability function of composite media. <i>Journal of Computational Physics</i> , 1988, 76, 176-191.	1.9	63
402	Series expansions for clustering in continuum percolation models with interactions. <i>Journal of Chemical Physics</i> , 1988, 89, 3799-3807.	1.2	11
403	Porosity for the penetrable concentric shell model of two-phase disordered media: Computer simulation results. <i>Journal of Chemical Physics</i> , 1988, 89, 3258-3263.	1.2	55
404	Diffusion-controlled reactions: Mathematical formulation, variational principles, and rigorous bounds. <i>Journal of Chemical Physics</i> , 1988, 88, 6372-6380.	1.2	94
405	Pair connectedness and mean cluster size for continuum percolation models: Computer simulation results. <i>Journal of Chemical Physics</i> , 1988, 89, 6427-6433.	1.2	61
406	Two-point cluster function for continuum percolation. <i>Journal of Chemical Physics</i> , 1988, 88, 6540-6547.	1.2	145
407	Bounds on the Effective Transport and Elastic Properties of a Random Array of Cylindrical Fibers in a Matrix. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1988, 55, 347-354.	1.1	24
408	Bulk properties of composite media. I. Simplification of bounds on the shear modulus of suspensions of impenetrable spheres. <i>Journal of Applied Physics</i> , 1987, 62, 3503-3513.	1.1	8
409	Characterization of the microstructure of disordered media: A unified approach. <i>Physical Review B</i> , 1987, 35, 5385-5387.	1.1	18
410	Bulk properties of composite media. II. Evaluation of bounds on the shear modulus of suspensions of impenetrable spheres. <i>Journal of Applied Physics</i> , 1987, 62, 4135-4141.	1.1	16
411	Upper and lower bounds for the rate of diffusion-controlled reactions. <i>Journal of Chemical Physics</i> , 1987, 87, 4612-4614.	1.2	11
412	Bounds on the permeability of a random array of partially penetrable spheres. <i>Physics of Fluids</i> , 1987, 30, 633.	1.4	28
413	Bulk properties of two-phase disordered media. IV. Mechanical properties of suspensions of penetrable spheres at nondilute concentrations. <i>Journal of Chemical Physics</i> , 1987, 86, 6388-6392.	1.2	12
414	Bounds on the conductivity of a suspension of random impenetrable spheres. <i>Journal of Applied Physics</i> , 1986, 60, 3576-3581.	1.1	49

#	ARTICLE	IF	CITATIONS
415	Microstructure characterization and bulk properties of disordered two-phase media. Journal of Statistical Physics, 1986, 45, 843-873.	0.5	101
416	Effective properties of fiber-reinforced materials: I. Bounds on the effective thermal conductivity of dispersions of fully penetrable cylinders. International Journal of Engineering Science, 1986, 24, 415-433.	2.7	33
417	Effective properties of fiber-reinforced materials: II. Bounds on the effective elastic moduli of dispersions of fully penetrable cylinders. International Journal of Engineering Science, 1986, 24, 435-447.	2.7	8
418	Bulk properties of two-phase disordered media. III. New bounds on the effective conductivity of dispersions of penetrable spheres. Journal of Chemical Physics, 1986, 84, 6345-6359.	1.2	65
419	Effective properties of two-phase disordered composite Media. I. Simplification of bounds on the conductivity and bulk modulus of dispersions of impenetrable spheres. Physical Review B, 1986, 33, 3370-3378.	1.1	27
420	Interfacial surface statistics arising in diffusion and flow problems in porous media. Journal of Chemical Physics, 1986, 85, 4622-4628.	1.2	29
421	Effective properties of two-phase disordered composite media: II. Evaluation of bounds on the conductivity and bulk modulus of dispersions of impenetrable spheres. Physical Review B, 1986, 33, 6428-6435.	1.1	102
422	Two-point distribution function for a dispersion of impenetrable spheres in a matrix. Journal of Chemical Physics, 1986, 85, 6248-6249.	1.2	7
423	Concentration dependence of diffusion-controlled reactions among static reactive sinks. Journal of Chemical Physics, 1986, 85, 7178-7179.	1.2	25
424	Bounds on the effective thermal conductivity of a dispersion of fully penetrable spheres. International Journal of Engineering Science, 1985, 23, 375-383.	2.7	12
425	Third-order bounds on the effective bulk and shear modulus of a dispersion of fully penetrable spheres. International Journal of Engineering Science, 1985, 23, 385-392.	2.7	11
426	Bulk properties of two-phase disordered media. II. Effective conductivity of a dilute dispersion of penetrable spheres. Journal of Chemical Physics, 1985, 83, 4776-4785.	1.2	47
427	Two-point matrix probability function for two-phase random media: Computer simulation results for impenetrable spheres. Journal of Chemical Physics, 1985, 83, 4075-4078.	1.2	26
428	Effective electrical conductivity of two-phase disordered composite media. Journal of Applied Physics, 1985, 58, 3790-3797.	1.1	241
429	Microstructure of two-phase random media. V. The n-point matrix probability functions for impenetrable spheres. Journal of Chemical Physics, 1985, 82, 980-987.	1.2	129
430	Microstructure of two-phase random media. IV. Expected surface area of a dispersion of penetrable spheres and its characteristic function. Journal of Chemical Physics, 1984, 80, 878-880.	1.2	40
431	Bulk properties of two-phase disordered media. I. Cluster expansion for the effective dielectric constant of dispersions of penetrable spheres. Journal of Chemical Physics, 1984, 81, 5079-5088.	1.2	111
432	The Latent Heat of Vaporization of a Widely Diverse Class of Fluids. Journal of Heat Transfer, 1984, 106, 252-254.	1.2	20

#	ARTICLE	IF	CITATIONS
433	Microstructure of two-phase random media. III. The n-point matrix probability functions for fully penetrable spheres. Journal of Chemical Physics, 1983, 79, 1505-1510.	1.2	110
434	Microstructure of two-phase random media. II. The Mayer-Montroll and Kirkwood-Salsburg hierarchies. Journal of Chemical Physics, 1983, 78, 3262-3272.	1.2	63
435	Microstructure of two-phase random media. I. The n-point probability functions. Journal of Chemical Physics, 1982, 77, 2071-2077.	1.2	260
436	An equation for the latent heat of vaporization. Industrial & Engineering Chemistry Fundamentals, 1982, 21, 202-205.	0.7	41