

Salvatore Torquato

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156
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442
ext. papers

33,233
ext. citations

4.5
avg, IF

7.73
L-index

#	Paper	IF	Citations
427	Random Heterogeneous Materials. <i>Interdisciplinary Applied Mathematics</i> , 2002 ,	0.7	1542
426	Is random close packing of spheres well defined?. <i>Physical Review Letters</i> , 2000 , 84, 2064-7	7.4	1017
425	Improving the density of jammed disordered packings using ellipsoids. <i>Science</i> , 2004 , 303, 990-3	33.3	924
424	Design of materials with extreme thermal expansion using a three-phase topology optimization method. <i>Journal of the Mechanics and Physics of Solids</i> , 1997 , 45, 1037-1067	5	656
423	Reconstructing random media. <i>Physical Review E</i> , 1998 , 57, 495-506	2.4	553
422	Random Heterogeneous Media: Microstructure and Improved Bounds on Effective Properties. <i>Applied Mechanics Reviews</i> , 1991 , 44, 37-76	8.6	528
421	Jammed hard-particle packings: From Kepler to Bernal and beyond. <i>Reviews of Modern Physics</i> , 2010 , 82, 2633-2672	40.5	497
420	Reconstructing random media. II. Three-dimensional media from two-dimensional cuts. <i>Physical Review E</i> , 1998 , 58, 224-233	2.4	381
419	Local density fluctuations, hyperuniformity, and order metrics. <i>Physical Review E</i> , 2003 , 68, 041113	2.4	378
418	Dense packings of the Platonic and Archimedean solids. <i>Nature</i> , 2009 , 460, 876-9	50.4	319
417	Simulated brain tumor growth dynamics using a three-dimensional cellular automaton. <i>Journal of Theoretical Biology</i> , 2000 , 203, 367-82	2.3	314
416	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, 20658-63	11.5	273
415	Composites with extremal thermal expansion coefficients. <i>Applied Physics Letters</i> , 1996 , 69, 3203-3205	3.4	271
414	Pair correlation function characteristics of nearly jammed disordered and ordered hard-sphere packings. <i>Physical Review E</i> , 2005 , 71, 011105	2.4	263
413	Packing hyperspheres in high-dimensional Euclidean spaces. <i>Physical Review E</i> , 2006 , 74, 041127	2.4	263
412	Neighbor list collision-driven molecular dynamics simulation for nonspherical hard particles. I. Algorithmic details. <i>Journal of Computational Physics</i> , 2005 , 202, 737-764	4.1	248
411	Unusually dense crystal packings of ellipsoids. <i>Physical Review Letters</i> , 2004 , 92, 255506	7.4	244

410	Towards a quantification of disorder in materials: distinguishing equilibrium and glassy sphere packings. <i>Physical Review E</i> , 2000 , 62, 993-1001	2.4	239
409	Computer simulations of dense hard-sphere systems. <i>Journal of Chemical Physics</i> , 1996 , 105, 9258-9265	3.9	227
408	Microstructure of two-phase random media. I. The n-point probability functions. <i>Journal of Chemical Physics</i> , 1982 , 77, 2071-2077	3.9	224
407	Nearest-neighbor statistics for packings of hard spheres and disks. <i>Physical Review E</i> , 1995 , 51, 3170-3182	2.4	222
406	Effective electrical conductivity of two-phase disordered composite media. <i>Journal of Applied Physics</i> , 1985 , 58, 3790-3797	2.5	218
405	Nearest-neighbor distribution functions in many-body systems. <i>Physical Review A</i> , 1990 , 41, 2059-2075	2.6	216
404	Random Heterogeneous Materials: Microstructure and Macroscopic Properties. <i>Applied Mechanics Reviews</i> , 2002 , 55, B62-B63	8.6	215
403	Modeling heterogeneous materials via two-point correlation functions: basic principles. <i>Physical Review E</i> , 2007 , 76, 031110	2.4	209
402	Reconstruction of the Structure of Dispersions. <i>Journal of Colloid and Interface Science</i> , 1997 , 186, 467-763	2.3	208
401	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, 17634-9	11.5	202
400	Multifunctional composites: optimizing microstructures for simultaneous transport of heat and electricity. <i>Physical Review Letters</i> , 2002 , 89, 266601	7.4	195
399	On the design of 1D piezocomposites using topology optimization. <i>Journal of Materials Research</i> , 1998 , 13, 1038-1048	2.5	192
398	Nearest-surface distribution functions for polydispersed particle systems. <i>Physical Review A</i> , 1992 , 45, 5530-5544	2.6	191
397	Underconstrained jammed packings of nonspherical hard particles: ellipses and ellipsoids. <i>Physical Review E</i> , 2007 , 75, 051304	2.4	189
396	Unexpected density fluctuations in jammed disordered sphere packings. <i>Physical Review Letters</i> , 2005 , 95, 090604	7.4	181
395	Effect of the interface on the properties of composite media. <i>Physical Review Letters</i> , 1995 , 75, 4067-4070	2.4	181
394	Precise determination of the critical threshold and exponents in a three-dimensional continuum percolation model. <i>Journal of Physics A</i> , 1997 , 30, L585-L592		180
393	Lineal-path function for random heterogeneous materials. <i>Physical Review A</i> , 1992 , 45, 922-929	2.6	179

392	Statistical Description of Microstructures. <i>Annual Review of Materials Research</i> , 2002 , 32, 77-111	12.8	178
391	Experiments on random packings of ellipsoids. <i>Physical Review Letters</i> , 2005 , 94, 198001	7.4	174
390	Modeling heterogeneous materials via two-point correlation functions. II. Algorithmic details and applications. <i>Physical Review E</i> , 2008 , 77, 031135	2.4	172
389	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		168
388	Jamming in hard sphere and disk packings. <i>Journal of Applied Physics</i> , 2004 , 95, 989-999	2.5	166
387	Pattern of self-organization in tumour systems: complex growth dynamics in a novel brain tumour spheroid model. <i>Cell Proliferation</i> , 2001 , 34, 115-34	7.9	164
386	Metastability and Crystallization in Hard-Sphere Systems. <i>Physical Review Letters</i> , 1996 , 77, 4198-4201	7.4	161
385	Stochastic reconstruction of sandstones. <i>Physical Review E</i> , 2000 , 62, 893-9	2.4	156
384	Effective stiffness tensor of composite media□ Exact series expansions. <i>Journal of the Mechanics and Physics of Solids</i> , 1997 , 45, 1421-1448	5	154
383	Diversity of order and densities in jammed hard-particle packings. <i>Physical Review E</i> , 2002 , 66, 041109	2.4	154
382	Efficient measurement of the percolation threshold for fully penetrable discs. <i>Journal of Physics A</i> , 2000 , 33, L399-L407		151
381	Effective mechanical and transport properties of cellular solids. <i>International Journal of Mechanical Sciences</i> , 1998 , 40, 71-82	5.5	150
380	Simulated properties of Kagom□ and tetragonal truss core panels. <i>International Journal of Solids and Structures</i> , 2003 , 40, 6989-6998	3.1	150
379	Chord-length distribution function for two-phase random media. <i>Physical Review E</i> , 1993 , 47, 2950-2953	2.4	149
378	Universal scaling of fluid permeability for sphere packings. <i>Physical Review E</i> , 1994 , 50, 403-408	2.4	149
377	Inverse optimization techniques for targeted self-assembly. <i>Soft Matter</i> , 2009 , 5, 1157	3.6	147
376	Effective stiffness tensor of composite media : II. Applications to isotropic dispersions. <i>Journal of the Mechanics and Physics of Solids</i> , 1998 , 46, 1411-1440	5	146
375	A single-bond approach to orientation-dependent interactions and its implications for liquid water. <i>Journal of Chemical Physics</i> , 1999 , 111, 2647-2656	3.9	145

374	Modulus-density scaling behaviour and framework architecture of nanoporous self-assembled silicas. <i>Nature Materials</i> , 2007 , 6, 418-23	27	142
373	Multiplicity of Generation, Selection, and Classification Procedures for Jammed Hard-Particle Packings. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 11849-11853	3.4	138
372	Thermodynamic implications of confinement for a waterlike fluid. <i>Journal of Chemical Physics</i> , 2001 , 114, 2401-2418	3.9	137
371	Hyperuniform states of matter. <i>Physics Reports</i> , 2018 , 745, 1-95	27.7	135
370	Dense packings of polyhedra: Platonic and Archimedean solids. <i>Physical Review E</i> , 2009 , 80, 041104	2.4	135
369	Flow in random porous media: mathematical formulation, variational principles, and rigorous bounds. <i>Journal of Fluid Mechanics</i> , 1989 , 206, 25-46	3.7	135
368	Neighbor list collision-driven molecular dynamics simulation for nonspherical hard particles.. <i>Journal of Computational Physics</i> , 2005 , 202, 765-793	4.1	134
367	Cross-property relations and permeability estimation in model porous media. <i>Physical Review E</i> , 1993 , 48, 4584-4591	2.4	128
366	Structural precursor to freezing in the hard-disk and hard-sphere systems. <i>Physical Review E</i> , 1998 , 58, 3083-3088	2.4	125
365	Isotropic band gaps and freeform waveguides observed in hyperuniform disordered photonic solids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 15886-15891	11.5	124
364	Design of smart composite materials using topology optimization. <i>Smart Materials and Structures</i> , 1999 , 8, 365-379	3.4	123
363	Two-point cluster function for continuum percolation. <i>Journal of Chemical Physics</i> , 1988 , 88, 6540-6547	3.9	122
362	Modeling of physical properties of composite materials. <i>International Journal of Solids and Structures</i> , 2000 , 37, 411-422	3.1	117
361	Hyperuniformity in point patterns and two-phase random heterogeneous media. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009 , 2009, P12015	1.9	116
360	Tetratic order in the phase behavior of a hard-rectangle system. <i>Physical Review B</i> , 2006 , 73,	3.3	115
359	Computer generation of dense polydisperse sphere packings. <i>Journal of Chemical Physics</i> , 2002 , 117, 8212-8218	3.9	115
358	Determining elastic behavior of composites by the boundary element method. <i>Journal of Applied Physics</i> , 1993 , 74, 159-170	2.5	115
357	Maximally random jammed packings of Platonic solids: hyperuniform long-range correlations and isotaticity. <i>Physical Review E</i> , 2011 , 84, 041309	2.4	114

356	Optimal packings of superballs. <i>Physical Review E</i> , 2009 , 79, 041309	2.4	114
355	Determination of the effective conductivity of heterogeneous media by Brownian motion simulation. <i>Journal of Applied Physics</i> , 1990 , 68, 3892-3903	2.5	114
354	Microstructure of two-phase random media. V. The n-point matrix probability functions for impenetrable spheres. <i>Journal of Chemical Physics</i> , 1985 , 82, 980-987	3.9	114
353	Efficient simulation technique to compute effective properties of heterogeneous media. <i>Applied Physics Letters</i> , 1989 , 55, 1847-1849	3.4	113
352	Quantification of order in the Lennard-Jones system. <i>Journal of Chemical Physics</i> , 2003 , 118, 2256-2263	3.9	112
351	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	3.9	112
350	Optimized interactions for targeted self-assembly: application to a honeycomb lattice. <i>Physical Review Letters</i> , 2005 , 95, 228301	7.4	111
349	Avian photoreceptor patterns represent a disordered hyperuniform solution to a multiscale packing problem. <i>Physical Review E</i> , 2014 , 89, 022721	2.4	109
348	Generating random media from limited microstructural information via stochastic optimization. <i>Journal of Applied Physics</i> , 1999 , 86, 3428-3437	2.5	108
347	Morphology and physical properties of Fontainebleau sandstone via a tomographic analysis. <i>Journal of Geophysical Research</i> , 1996 , 101, 17497-17506		108
346	Microstructure of two-phase random media. III. The n-point matrix probability functions for fully penetrable spheres. <i>Journal of Chemical Physics</i> , 1983 , 79, 1505-1510	3.9	108
345	Making Negative Poisson's Ratio Microstructures by Soft Lithography. <i>Advanced Materials</i> , 1999 , 11, 1186-1189	24	107
344	New Conjectural Lower Bounds on the Optimal Density of Sphere Packings. <i>Experimental Mathematics</i> , 2006 , 15, 307-331	0.5	105
343	Classical disordered ground states: Super-ideal gases and stealth and equi-luminous materials. <i>Journal of Applied Physics</i> , 2008 , 104, 033504	2.5	104
342	New directions in mechanics. <i>Mechanics of Materials</i> , 2005 , 37, 231-259	3.3	104
341	Packing, tiling, and covering with tetrahedra. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 10612-7	11.5	103
340	Optimal design of manufacturable three-dimensional composites with multifunctional characteristics. <i>Journal of Applied Physics</i> , 2003 , 94, 5748-5755	2.5	103
339	Effective conductivity of suspensions of hard spheres by Brownian motion simulation. <i>Journal of Applied Physics</i> , 1991 , 69, 2280-2289	2.5	103

338	Bulk properties of two-phase disordered media. I. Cluster expansion for the effective dielectric constant of dispersions of penetrable spheres. <i>Journal of Chemical Physics</i> , 1984 , 81, 5079-5088	3.9	103
337	Optimal and Manufacturable Two-dimensional, Kagom̄like Cellular Solids. <i>Journal of Materials Research</i> , 2002 , 17, 137-144	2.5	102
336	Random sequential addition of hard spheres in high Euclidean dimensions. <i>Physical Review E</i> , 2006 , 74, 061308	2.4	101
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334	Hyperuniform long-range correlations are a signature of disordered jammed hard-particle packings. <i>Physical Review Letters</i> , 2011 , 106, 178001	7.4	97
333	Cooperative origin of low-density domains in liquid water. <i>Physical Review Letters</i> , 2002 , 89, 215503	7.4	97
332	Free volume in the hard sphere liquid. <i>Molecular Physics</i> , 1998 , 95, 289-297	1.7	95
331	Microstructure characterization and bulk properties of disordered two-phase media. <i>Journal of Statistical Physics</i> , 1986 , 45, 843-873	1.5	95
330	Phase behavior of colloidal superballs: shape interpolation from spheres to cubes. <i>Physical Review E</i> , 2010 , 81, 061105	2.4	93
329	Effective properties of two-phase disordered composite media: II. Evaluation of bounds on the conductivity and bulk modulus of dispersions of impenetrable spheres. <i>Physical Review B</i> , 1986 , 33, 6428-6435	3.3	90
328	On the use of homogenization theory to design optimal piezocomposites for hydrophone applications. <i>Journal of the Mechanics and Physics of Solids</i> , 1997 , 45, 689-708	5	88
327	Distinctive features arising in maximally random jammed packings of superballs. <i>Physical Review E</i> , 2010 , 81, 041304	2.4	87
326	Optimized structures for photonic quasicrystals. <i>Physical Review Letters</i> , 2008 , 101, 073902	7.4	87
325	Scale effects on the elastic behavior of periodic and hierarchical two-dimensional composites. <i>Journal of the Mechanics and Physics of Solids</i> , 1999 , 47, 1509-1542	5	87
324	Diffusion-controlled reactions: Mathematical formulation, variational principles, and rigorous bounds. <i>Journal of Chemical Physics</i> , 1988 , 88, 6372-6380	3.9	87
323	Photonic band gap in isotropic hyperuniform disordered solids with low dielectric contrast. <i>Optics Express</i> , 2013 , 21, 19972-81	3.3	86
322	Designed interaction potentials via inverse methods for self-assembly. <i>Physical Review E</i> , 2006 , 73, 011406	4.6	86
321	Minimal surfaces and multifunctionality. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004 , 460, 1849-1856	2.4	86

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319	Optimal Design of Heterogeneous Materials. <i>Annual Review of Materials Research</i> , 2010 , 40, 101-129	12.8	85
318	Do binary hard disks exhibit an ideal glass transition?. <i>Physical Review Letters</i> , 2006 , 96, 225502	7.4	84
317	Extraction of morphological quantities from a digitized medium. <i>Journal of Applied Physics</i> , 1995 , 77, 6087-6099	2.5	82
316	Complete band gaps in two-dimensional photonic quasicrystals. <i>Physical Review B</i> , 2009 , 80,	3.3	80
315	Some Observations on the Random Packing of Hard Ellipsoids. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 6960-6965	3.9	80
314	Modeling the effects of vasculature evolution on early brain tumor growth. <i>Journal of Theoretical Biology</i> , 2006 , 243, 517-31	2.3	80
313	A linear programming algorithm to test for jamming in hard-sphere packings. <i>Journal of Computational Physics</i> , 2004 , 197, 139-166	4.1	80
312	Constraints on collective density variables: two dimensions. <i>Physical Review E</i> , 2004 , 70, 046122	2.4	79
311	Cellular automaton of idealized brain tumor growth dynamics. <i>BioSystems</i> , 2000 , 55, 119-27	1.9	78
310	Mean nearest-neighbor distance in random packings of hard D-dimensional spheres. <i>Physical Review Letters</i> , 1995 , 74, 2156-2159	7.4	78
309	Precise algorithm to generate random sequential addition of hard hyperspheres at saturation. <i>Physical Review E</i> , 2013 , 88, 053312	2.4	77
308	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	1.9	76
307	Robust algorithm to generate a diverse class of dense disordered and ordered sphere packings via linear programming. <i>Physical Review E</i> , 2010 , 82, 061302	2.4	75
306	Relationship between permeability and diffusion-controlled trapping constant of porous media. <i>Physical Review Letters</i> , 1990 , 64, 2644-2646	7.4	72
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303	Emergence of a subpopulation in a computational model of tumor growth. <i>Journal of Theoretical Biology</i> , 2000 , 207, 431-41	2.3	69

302	Structure and transport properties of a porous magnetic gel via x-ray microtomography. <i>Physical Review E</i> , 1996 , 54, 2663-2669	2.4	69
301	Morphology and effective properties of disordered heterogeneous media. <i>International Journal of Solids and Structures</i> , 1998 , 35, 2385-2406	3.1	68
300	Optimal packings of superdisks and the role of symmetry. <i>Physical Review Letters</i> , 2008 , 100, 245504	7.4	68
299	Strong-contrast expansions and approximations for the effective conductivity of isotropic multiphase composites. <i>Journal of Applied Physics</i> , 2003 , 94, 6591-6602	2.5	68
298	Improved Bounds on the Effective Elastic Moduli of Random Arrays of Cylinders. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1992 , 59, 1-6	2.7	67
297	Diagnosing hyperuniformity in two-dimensional, disordered, jammed packings of soft spheres. <i>Physical Review E</i> , 2015 , 91, 012302	2.4	66
296	Ensemble Theory for Stealthy Hyperuniform Disordered Ground States. <i>Physical Review X</i> , 2015 , 5,	9.1	66
295	Emergent behaviors from a cellular automaton model for invasive tumor growth in heterogeneous microenvironments. <i>PLoS Computational Biology</i> , 2011 , 7, e1002314	5	65
294	Generating microstructures with specified correlation functions. <i>Journal of Applied Physics</i> , 2001 , 89, 53-60	2.5	64
293	Diffusion of finite-sized Brownian particles in porous media. <i>Journal of Chemical Physics</i> , 1992 , 96, 1498-1503	3.9	64
292	Monte Carlo study of correlated continuum percolation: Universality and percolation thresholds. <i>Physical Review A</i> , 1990 , 41, 5338-5344	2.6	64
291	Chord-distribution functions of three-dimensional random media: approximate first-passage times of Gaussian processes. <i>Physical Review E</i> , 1999 , 59, 4953-63	2.4	63
290	Evolutionary-Optimized Photonic Network Structure in White Beetle Wing Scales. <i>Advanced Materials</i> , 2018 , 30, e1702057	24	61
289	Thermal expansion of isotropic multiphase composites and polycrystals. <i>Journal of the Mechanics and Physics of Solids</i> , 1997 , 45, 1223-1252	5	61
288	Transport and diffusion in three-dimensional composite media. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1994 , 207, 28-36	3.3	61
287	Bulk properties of two-phase disordered media. III. New bounds on the effective conductivity of dispersions of penetrable spheres. <i>Journal of Chemical Physics</i> , 1986 , 84, 6345-6359	3.9	61
286	Microstructure of two-phase random media. II. The Mayer-Montroll and Kirkwood-Balsburg hierarchies. <i>Journal of Chemical Physics</i> , 1983 , 78, 3262-3272	3.9	61
285	Effective conductivity, dielectric constant, and diffusion coefficient of digitized composite media via first-passage-time equations. <i>Journal of Applied Physics</i> , 1999 , 85, 1560-1571	2.5	60

284	Random-walk simulation of diffusion-controlled processes among static traps. <i>Physical Review B</i> , 1989 , 39, 11833-11839	3.3	60
283	Perspective: Basic understanding of condensed phases of matter via packing models. <i>Journal of Chemical Physics</i> , 2018 , 149, 020901	3.9	59
282	Effective conductivity of suspensions of overlapping spheres. <i>Journal of Applied Physics</i> , 1992 , 71, 2727-2735		56
281	Effective conductivity of hard-sphere dispersions. <i>Journal of Applied Physics</i> , 1990 , 68, 5486-5493	2.5	56
280	Computer simulation results for the two-point probability function of composite media. <i>Journal of Computational Physics</i> , 1988 , 76, 176-191	4.1	56
279	Impact of microstructure on the effective diffusivity in random packings of hard spheres. <i>Journal of Applied Physics</i> , 2014 , 116, 034904	2.5	55
278	Accurate modeling and reconstruction of three-dimensional percolating filamentary microstructures from two-dimensional micrographs via dilation-erosion method. <i>Materials Characterization</i> , 2014 , 89, 33-42	3.9	55
277	Controlling the Short-Range Order and Packing Densities of Many-Particle Systems. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 8354-8359	3.4	55
276	Link between the conductivity and elastic moduli of composite materials. <i>Physical Review Letters</i> , 1993 , 71, 2927-2930	7.4	55
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273	Synthetic diamond and wurtzite structures self-assemble with isotropic pair interactions. <i>Physical Review E</i> , 2007 , 75, 031403	2.4	53
272	Chord-length and free-path distribution functions for many-body systems. <i>Journal of Chemical Physics</i> , 1993 , 98, 6472-6482	3.9	53
271	Pair connectedness and mean cluster size for continuum-percolation models: Computer-simulation results. <i>Journal of Chemical Physics</i> , 1988 , 89, 6427-6433	3.9	53
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269	A variational level set approach for surface area minimization of triply-periodic surfaces. <i>Journal of Computational Physics</i> , 2007 , 223, 711-730	4.1	52
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265	Hyperuniformity in amorphous silicon based on the measurement of the infinite-wavelength limit of the structure factor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 13250-4	11.5	49
264	Exactly solvable disordered sphere-packing model in arbitrary-dimensional Euclidean spaces. <i>Physical Review E</i> , 2006 , 73, 031106	2.4	49
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262	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	3.9	49
261	Existence of isostatic, maximally random jammed monodisperse hard-disk packings. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 18436-41	11.5	48
260	Hard-sphere statistics along the metastable amorphous branch. <i>Physical Review E</i> , 1998 , 58, 532-537	2.4	48
259	Optical cavities and waveguides in hyperuniform disordered photonic solids. <i>Physical Review B</i> , 2013 , 87,	3.3	47
258	Designing disordered hyperuniform two-phase materials with novel physical properties. <i>Acta Materialia</i> , 2018 , 142, 152-161	8.4	46
257	Hyperuniformity, quasi-long-range correlations, and void-space constraints in maximally random jammed particle packings. I. Polydisperse spheres. <i>Physical Review E</i> , 2011 , 83, 051308	2.4	46
256	Statistical properties of determinantal point processes in high-dimensional Euclidean spaces. <i>Physical Review E</i> , 2009 , 79, 041108	2.4	46
255	Nonequilibrium hard-disk packings with controlled orientational order. <i>Journal of Chemical Physics</i> , 2000 , 113, 4844	3.9	46
254	Bounds on the conductivity of a suspension of random impenetrable spheres. <i>Journal of Applied Physics</i> , 1986 , 60, 3576-3581	2.5	46
253	Toward an Ising model of cancer and beyond. <i>Physical Biology</i> , 2011 , 8, 015017	3	45
252	Improved reconstructions of random media using dilation and erosion processes. <i>Physical Review E</i> , 2011 , 84, 056102	2.4	45
251	Exact Expression for the Effective Elastic Tensor of Disordered Composites. <i>Physical Review Letters</i> , 1997 , 79, 681-684	7.4	45
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249	Exact constructions of a family of dense periodic packings of tetrahedra. <i>Physical Review E</i> , 2010 , 81, 041310	2.4	44

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