

Salvatore Torquato

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

427
papers

30,289
citations

95
h-index

156
g-index

442
ext. papers

33,233
ext. citations

4.5
avg, IF

7.73
L-index

#	Paper	IF	Citations
427	Diffusion spreadability as a probe of the microstructure of complex media across length scales.. <i>Physical Review E</i> , 2021 , 104, 054102	2.4	0
426	Understanding degeneracy of two-point correlation functions via Debye random media. <i>Physical Review E</i> , 2021 , 104, 045306	2.4	0
425	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	3.4	0
424	Nonlocal Effective Electromagnetic Wave Characteristics of Composite Media: Beyond the Quasistatic Regime. <i>Physical Review X</i> , 2021 , 11,	9.1	3
423	Structural characterization of many-particle systems on approach to hyperuniform states. <i>Physical Review E</i> , 2021 , 103, 052126	2.4	3
422	Local Number Fluctuations in Hyperuniform and Nonhyperuniform Systems: Higher-Order Moments and Distribution Functions. <i>Physical Review X</i> , 2021 , 11,	9.1	3
421	Manifestations of metastable criticality in the long-range structure of model water glasses. <i>Nature Communications</i> , 2021 , 12, 3398	17.4	7
420	Critical pore radius and transport properties of disordered hard- and overlapping-sphere models. <i>Physical Review E</i> , 2021 , 104, 014127	2.4	2
419	Engineered disorder in photonics. <i>Nature Reviews Materials</i> , 2021 , 6, 226-243	73.3	41
418	Gap Sensitivity Reveals Universal Behaviors in Optimized Photonic Crystal and Disordered Networks. <i>Physical Review Letters</i> , 2021 , 127, 037401	7.4	3
417	Characterizing the hyperuniformity of ordered and disordered two-phase media. <i>Physical Review E</i> , 2021 , 103, 012123	2.4	1
416	Sensitivity of pair statistics on pair potentials in many-body systems. <i>Journal of Chemical Physics</i> , 2020 , 153, 124106	3.9	6
415	Realizable hyperuniform and nonhyperuniform particle configurations with targeted spectral functions via effective pair interactions. <i>Physical Review E</i> , 2020 , 101, 032124	2.4	7
414	Cloaking the underlying long-range order of randomly perturbed lattices. <i>Physical Review E</i> , 2020 , 101, 032118	2.4	15
413	Predicting transport characteristics of hyperuniform porous media via rigorous microstructure-property relations. <i>Advances in Water Resources</i> , 2020 , 140, 103565	4.7	10
412	Multifunctional composites for elastic and electromagnetic wave propagation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 8764-8774	11.5	11
411	Nearest-neighbor functions for disordered stealthy hyperuniform many-particle systems. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2020 , 2020, 103302	1.9	0

410	Effective elastic wave characteristics of composite media. <i>New Journal of Physics</i> , 2020 , 22, 123050	2.9	3
409	Generation and structural characterization of Debye random media. <i>Physical Review E</i> , 2020 , 102, 043310	4.4	4
408	Predicting permeability via statistical learning on higher-order microstructural information. <i>Scientific Reports</i> , 2020 , 10, 15239	4.9	8
407	Minimal statistical-mechanical model for multihyperuniform patterns in avian retina. <i>Physical Review E</i> , 2020 , 102, 012134	2.4	2
406	Optimized Large Hyperuniform Binary Colloidal Suspensions in Two Dimensions. <i>Physical Review Letters</i> , 2020 , 125, 068002	7.4	4
405	Structural degeneracy in pair distance distributions. <i>Journal of Chemical Physics</i> , 2019 , 150, 204125	3.9	5
404	Methodology to construct large realizations of perfectly hyperuniform disordered packings. <i>Physical Review E</i> , 2019 , 99, 052141	2.4	11
403	New tessellation-based procedure to design perfectly hyperuniform disordered dispersions for materials discovery. <i>Acta Materialia</i> , 2019 , 168, 143-151	8.4	10
402	Hidden multiscale order in the primes. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019 , 52, 135002	12	
401	Universal hidden order in amorphous cellular geometries. <i>Nature Communications</i> , 2019 , 10, 811	17.4	36
400	Hyperuniformity order metric of Barlow packings. <i>Physical Review E</i> , 2019 , 99, 022111	2.4	3
399	Hyperuniformity of generalized random organization models. <i>Physical Review E</i> , 2019 , 99, 022115	2.4	7
398	Hyperuniformity on spherical surfaces. <i>Physical Review E</i> , 2019 , 100, 022107	2.4	5
397	Self-Similar Dynamics of Nuclear Packing in the Early Drosophila Embryo. <i>Biophysical Journal</i> , 2019 , 117, 743-750	2.9	10
396	Phoamtonic designs yield sizeable 3D photonic band gaps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 23480-23486	11.5	12
395	Hyperuniformity and anti-hyperuniformity in one-dimensional substitution tilings. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019 , 75, 3-13	1.7	9
394	Jammed hard-sphere hcp crystals permeated with trivacancy tunnels. <i>Journal of Applied Physics</i> , 2019 , 126, 194901	2.5	1
393	Hard convex lens-shaped particles: Characterization of dense disordered packings. <i>Physical Review E</i> , 2019 , 100, 062902	2.4	4

392	Hyperuniform disordered waveguides and devices for near infrared silicon photonics. <i>Scientific Reports</i> , 2019 , 9, 20338	4.9	13
391	The structure factor of primes. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018 , 51, 115001	2	7
390	Rational design of stealthy hyperuniform two-phase media with tunable order. <i>Physical Review E</i> , 2018 , 97, 023311	2.4	12
389	Effect of imperfections on the hyperuniformity of many-body systems. <i>Physical Review B</i> , 2018 , 97,	3.3	26
388	Disordered multihyperuniformity derived from binary plasmas. <i>Physical Review E</i> , 2018 , 97, 010102	2.4	11
387	Characterization of maximally random jammed sphere packings. III. Transport and electromagnetic properties via correlation functions. <i>Physical Review E</i> , 2018 , 97, 012118	2.4	16
386	Hyperuniform states of matter. <i>Physics Reports</i> , 2018 , 745, 1-95	27.7	135
385	Evolutionary-Optimized Photonic Network Structure in White Beetle Wing Scales. <i>Advanced Materials</i> , 2018 , 30, e1702057	24	61
384	Designing disordered hyperuniform two-phase materials with novel physical properties. <i>Acta Materialia</i> , 2018 , 142, 152-161	8.4	46
383	Precise algorithms to compute surface correlation functions of two-phase heterogeneous media and their applications. <i>Physical Review E</i> , 2018 , 98, 013307	2.4	17
382	Perspective: Basic understanding of condensed phases of matter via packing models. <i>Journal of Chemical Physics</i> , 2018 , 149, 020901	3.9	59
381	Inverse Design of Colloidal Crystals via Optimized Patchy Interactions. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 8462-8468	3.4	20
380	Binary mixtures of charged colloids: a potential route to synthesize disordered hyperuniform materials. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 17557-17562	3.6	8
379	Light Localization in Local Isomorphism Classes of Quasicrystals. <i>Physical Review Letters</i> , 2018 , 120, 247401	4.1	6
378	Searching for crystal-ice domains in amorphous ices. <i>Physical Review Materials</i> , 2018 , 2,	3.2	29
377	Multifunctionality of particulate composites via cross-property maps. <i>Physical Review Materials</i> , 2018 , 2,	3.2	5
376	Multifunctional hyperuniform cellular networks: optimality, anisotropy and disorder. <i>Multifunctional Materials</i> , 2018 , 1, 015001	5.2	17
375	Hard convex lens-shaped particles: metastable, glassy and jammed states. <i>Soft Matter</i> , 2018 , 14, 8205-8218	3.8	4

374	Inversion problems for Fourier transforms of particle distributions. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018 , 2018, 113302	1.9	
373	Uncovering multiscale order in the prime numbers via scattering. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018 , 2018, 093401	1.9	10
372	Percolation of disordered jammed sphere packings. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017 , 50, 085001	2	28
371	Hyperuniformity of quasicrystals. <i>Physical Review B</i> , 2017 , 95,	3.3	33
370	The Weyl-Heisenberg ensemble: hyperuniformity and higher Landau levels. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017 , 2017, 043103	1.9	11
369	Hyperuniformity variation with quasicrystal local isomorphism class. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 204003	1.8	6
368	Large-Scale Structure and Hyperuniformity of Amorphous Ices. <i>Physical Review Letters</i> , 2017 , 119, 136002	2.4	31
367	Classical many-particle systems with unique disordered ground states. <i>Physical Review E</i> , 2017 , 96, 042146	1.6	8
366	Can exotic disordered "stealthy" particle configurations tolerate arbitrarily large holes?. <i>Soft Matter</i> , 2017 , 13, 6197-6207	3.6	14
365	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	1.9	11
364	Random scalar fields and hyperuniformity. <i>Journal of Applied Physics</i> , 2017 , 121, 244904	2.5	32
363	Disordered hyperuniformity in two-component nonadditive hard-disk plasmas. <i>Physical Review E</i> , 2017 , 96, 062126	2.4	15
362	Static structural signatures of nearly jammed disordered and ordered hard-sphere packings: Direct correlation function. <i>Physical Review E</i> , 2016 , 94, 032902	2.4	10
361	Hyperuniformity and its generalizations. <i>Physical Review E</i> , 2016 , 94, 022122	2.4	85
360	The Perfect Glass Paradigm: Disordered Hyperuniform Glasses Down to Absolute Zero. <i>Scientific Reports</i> , 2016 , 6, 36963	4.9	29
359	Inverse design of disordered stealthy hyperuniform spin chains. <i>Physical Review B</i> , 2016 , 93,	3.3	12
358	Disordered hyperuniform heterogeneous materials. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 414018	2.8	34
357	Structural Characterization and Statistical-Mechanical Model of Epidermal Patterns. <i>Biophysical Journal</i> , 2016 , 111, 2534-2545	2.9	13

356	Extreme lattices: symmetries and decorrelation. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016 , 2016, 113301	1.9	5
355	Transport, geometrical, and topological properties of stealthy disordered hyperuniform two-phase systems. <i>Journal of Chemical Physics</i> , 2016 , 145, 244109	3.9	38
354	Characterization of maximally random jammed sphere packings. II. Correlation functions and density fluctuations. <i>Physical Review E</i> , 2016 , 94, 022152	2.4	16
353	Critical slowing down and hyperuniformity on approach to jamming. <i>Physical Review E</i> , 2016 , 94, 012902	2.4	38
352	Diagnosing hyperuniformity in two-dimensional, disordered, jammed packings of soft spheres. <i>Physical Review E</i> , 2015 , 91, 012302	2.4	66
351	The phase diagram of high-pressure superionic ice. <i>Nature Communications</i> , 2015 , 6, 8156	17.4	39
350	A Geometric-Structure Theory for Maximally Random Jammed Packings. <i>Scientific Reports</i> , 2015 , 5, 16722	2.9	14
349	Ground states of stealthy hyperuniform potentials. II. Stacked-slider phases. <i>Physical Review E</i> , 2015 , 92, 022120	2.4	19
348	Confined disordered strictly jammed binary sphere packings. <i>Physical Review E</i> , 2015 , 92, 062207	2.4	13
347	Ensemble Theory for Stealthy Hyperuniform Disordered Ground States. <i>Physical Review X</i> , 2015 , 5,	9.1	66
346	Ground states of stealthy hyperuniform potentials: I. Entropically favored configurations. <i>Physical Review E</i> , 2015 , 92, 022119	2.4	35
345	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, 124901	2.5	28
344	Hard convex lens-shaped particles: Densest-known packings and phase behavior. <i>Journal of Chemical Physics</i> , 2015 , 143, 224506	3.9	15
343	Marginal stability in jammed packings: quasicontracts and weak contacts. <i>Physical Review E</i> , 2014 , 90, 022114	2.4	6
342	Equilibrium phase behavior and maximally random jammed state of truncated tetrahedra. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 7981-92	3.4	37
341	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
340	Hyperuniform disordered photonic band gap devices for silicon photonics 2014 ,		1
339	Viscosity of bimodal suspensions with hard spherical particles. <i>Journal of Applied Physics</i> , 2014 , 116, 184902	2.9	14

338	Characterization of maximally random jammed sphere packings: Voronoi correlation functions. <i>Physical Review E</i> , 2014 , 90, 052120	2.4	25
337	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
336	Dense periodic packings of tori. <i>Physical Review E</i> , 2014 , 89, 022133	2.4	10
335	Avian photoreceptor patterns represent a disordered hyperuniform solution to a multiscale packing problem. <i>Physical Review E</i> , 2014 , 89, 022721	2.4	109
334	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
333	A cellular automaton model for tumor dormancy: emergence of a proliferative switch. <i>PLoS ONE</i> , 2014 , 9, e109934	3.7	13
332	Disordered strictly jammed binary sphere packings attain an anomalously large range of densities. <i>Physical Review E</i> , 2013 , 88, 022205	2.4	54
331	Jammed lattice sphere packings. <i>Physical Review E</i> , 2013 , 88, 062151	2.4	20
330	Nonequilibrium static growing length scales in supercooled liquids on approaching the glass transition. <i>Journal of Chemical Physics</i> , 2013 , 138, 12A508	3.9	26
329	Exotic Ground States of Directional Pair Potentials via Collective-Density Variables. <i>Journal of Statistical Physics</i> , 2013 , 150, 414-431	1.5	6
328	Precise algorithm to generate random sequential addition of hard hyperspheres at saturation. <i>Physical Review E</i> , 2013 , 88, 053312	2.4	77
327	Photonic band gap in isotropic hyperuniform disordered solids with low dielectric contrast. <i>Optics Express</i> , 2013 , 21, 19972-81	3.3	86
326	Communication: Designed diamond ground state via optimized isotropic monotonic pair potentials. <i>Journal of Chemical Physics</i> , 2013 , 138, 061101	3.9	41
325	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, 15886-91	11.5	124
324	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
323	Nearly hyperuniform network models of amorphous silicon. <i>Physical Review B</i> , 2013 , 87,	3.3	41
322	Detailed characterization of rattlers in exactly isostatic, strictly jammed sphere packings. <i>Physical Review E</i> , 2013 , 88, 062208	2.4	36
321	Efficient linear programming algorithm to generate the densest lattice sphere packings. <i>Physical Review E</i> , 2013 , 87, 063303	2.4	14

3 ²⁰	Evolution and morphology of microenvironment-enhanced malignancy of three-dimensional invasive solid tumors. <i>Physical Review E</i> , 2013 , 87, 052707	2.4	14
3 ¹⁹	Effect of dimensionality on the percolation threshold of overlapping nonspherical hyperparticles. <i>Physical Review E</i> , 2013 , 87, 022111	2.4	23
3 ¹⁸	Designer spin systems via inverse statistical mechanics. II. Ground-state enumeration and classification. <i>Physical Review B</i> , 2013 , 88,	3.3	7
3 ¹⁷	Designer spin systems via inverse statistical mechanics. <i>Physical Review B</i> , 2013 , 88,	3.3	13
3 ¹⁶	Probing the limitations of isotropic pair potentials to produce ground-state structural extremes via inverse statistical mechanics. <i>Physical Review E</i> , 2013 , 88, 042309	2.4	36
3 ¹⁵	Optical cavities and waveguides in hyperuniform disordered photonic solids. <i>Physical Review B</i> , 2013 , 87,	3.3	47
3 ¹⁴	Effect of dimensionality on the percolation thresholds of various d-dimensional lattices. <i>Physical Review E</i> , 2013 , 87,	2.4	14
3 ¹³	Effect of dimensionality on the continuum percolation of overlapping hyperspheres and hypercubes. II. Simulation results and analyses. <i>Journal of Chemical Physics</i> , 2012 , 137, 074106	3.9	37
3 ¹²	Densest binary sphere packings. <i>Physical Review E</i> , 2012 , 85, 021130	2.4	52
3 ¹¹	Organizing principles for dense packings of nonspherical hard particles: not all shapes are created equal. <i>Physical Review E</i> , 2012 , 86, 011102	2.4	39
3 ¹⁰	Hydration and percolation at the setting point. <i>Cement and Concrete Research</i> , 2012 , 42, 665-672	10.3	29
3 ⁰⁹	Microstructural degeneracy associated with a two-point correlation function and its information content. <i>Physical Review E</i> , 2012 , 85, 051140	2.4	43
3 ⁰⁸	Nonequilibrium static diverging length scales on approaching a prototypical model glassy state. <i>Physical Review E</i> , 2012 , 86, 021505	2.4	24
3 ⁰⁷	Maximally dense packings of two-dimensional convex and concave noncircular particles. <i>Physical Review E</i> , 2012 , 86, 031302	2.4	30
3 ⁰⁶	Effect of dimensionality on the continuum percolation of overlapping hyperspheres and hypercubes. <i>Journal of Chemical Physics</i> , 2012 , 136, 054106	3.9	33
3 ⁰⁵	Density of States for a specified correlation function and the energy landscape. <i>Physical Review Letters</i> , 2012 , 108, 080601	7.4	40
3 ⁰⁴	Families of tessellations of space by elementary polyhedra via retessellations of face-centered-cubic and related tilings. <i>Physical Review E</i> , 2012 , 86, 041141	2.4	8
3 ⁰³	Quantitative characterization of the microstructure and transport properties of biopolymer networks. <i>Physical Biology</i> , 2012 , 9, 036009	3	36

302	Diversity of dynamics and morphologies of invasive solid tumors. <i>AIP Advances</i> , 2012 , 2, 11003	1.5	19
301	Toward an Ising model of cancer and beyond. <i>Physical Biology</i> , 2011 , 8, 015017	3	45
300	Nonuniversality of density and disorder in jammed sphere packings. <i>Journal of Applied Physics</i> , 2011 , 109, 013508	2.5	40
299	Hyperuniform long-range correlations are a signature of disordered jammed hard-particle packings. <i>Physical Review Letters</i> , 2011 , 106, 178001	7.4	97
298	New family of tilings of three-dimensional Euclidean space by tetrahedra and octahedra. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 11009-12	11.5	17
297	Densest local sphere-packing diversity. II. Application to three dimensions. <i>Physical Review E</i> , 2011 , 83, 011304	2.4	16
296	Phase diagram and structural diversity of the densest binary sphere packings. <i>Physical Review Letters</i> , 2011 , 107, 125501	7.4	42
295	Spatial organization and correlations of cell nuclei in brain tumors. <i>PLoS ONE</i> , 2011 , 6, e27323	3.7	27
294	Rigidity of spherical codes. <i>Geometry and Topology</i> , 2011 , 15, 2235-2273	1.3	15
293	Communication: a packing of truncated tetrahedra that nearly fills all of space and its melting properties. <i>Journal of Chemical Physics</i> , 2011 , 135, 151101	3.9	27
292	Optimized monotonic convex pair potentials stabilize low-coordinated crystals. <i>Soft Matter</i> , 2011 , 7, 2332	3.6	37
291	Duality relations for the classical ground states of soft-matter systems. <i>Soft Matter</i> , 2011 , 7, 3780	3.6	6
290	Novel ground-state crystals with controlled vacancy concentrations: From kagom \tilde{e} to honeycomb to stripes. <i>Soft Matter</i> , 2011 , 7, 6194	3.6	11
289	Hyperuniformity, quasi-long-range correlations, and void-space constraints in maximally random jammed particle packings. II. Anisotropy in particle shape. <i>Physical Review E</i> , 2011 , 83, 051309	2.4	30
288	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
287	High-dimensional generalizations of the kagom \tilde{e} and diamond crystals and the decorrelation principle for periodic sphere packings. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2011 , 2011, P10017	1.9	11
286	Unusual ground states via monotonic convex pair potentials. <i>Journal of Chemical Physics</i> , 2011 , 134, 164105	3.9	30
285	Maximally random jammed packings of Platonic solids: hyperuniform long-range correlations and isostaticity. <i>Physical Review E</i> , 2011 , 84, 041309	2.4	114

284	Improved reconstructions of random media using dilation and erosion processes. <i>Physical Review E</i> , 2011 , 84, 056102	2.4	45
283	Anomalous local coordination, density fluctuations, and void statistics in disordered hyperuniform many-particle ground states. <i>Physical Review E</i> , 2011 , 83, 051133	2.4	38
282	New bounds on the sedimentation velocity for hard, charged and adhesive hard-sphere colloids. <i>Journal of Fluid Mechanics</i> , 2011 , 667, 403-425	3.7	9
281	Inherent structures for soft long-range interactions in two-dimensional many-particle systems. <i>Journal of Chemical Physics</i> , 2011 , 135, 054104	3.9	8
280	Emergent behaviors from a cellular automaton model for invasive tumor growth in heterogeneous microenvironments. <i>PLoS Computational Biology</i> , 2011 , 7, e1002314	5	65
279	Spherical codes, maximal local packing density, and the golden ratio. <i>Journal of Mathematical Physics</i> , 2010 , 51, 043302	1.2	11
278	Effects of random link removal on the photonic band gaps of honeycomb networks. <i>Applied Physics Letters</i> , 2010 , 97, 201103	3.4	20
277	Distinctive features arising in maximally random jammed packings of superballs. <i>Physical Review E</i> , 2010 , 81, 041304	2.4	87
276	Optimal Design of Heterogeneous Materials. <i>Annual Review of Materials Research</i> , 2010 , 40, 101-129	12.8	85
275	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
274	Reformulation of the covering and quantizer problems as ground states of interacting particles. <i>Physical Review E</i> , 2010 , 82, 056109	2.4	32
273	Jammed hard-particle packings: From Kepler to Bernal and beyond. <i>Reviews of Modern Physics</i> , 2010 , 82, 2633-2672	40.5	497
272	Exact constructions of a family of dense periodic packings of tetrahedra. <i>Physical Review E</i> , 2010 , 81, 041310	2.4	44
271	Phase behavior of colloidal superballs: shape interpolation from spheres to cubes. <i>Physical Review E</i> , 2010 , 81, 061105	2.4	93
270	Geometrical ambiguity of pair statistics. II. Heterogeneous media. <i>Physical Review E</i> , 2010 , 82, 011106	2.4	33
269	Geometrical ambiguity of pair statistics: point configurations. <i>Physical Review E</i> , 2010 , 81, 011105	2.4	32
268	Densest local sphere-packing diversity: general concepts and application to two dimensions. <i>Physical Review E</i> , 2010 , 81, 041305	2.4	13
267	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	40.5	7

266	Growing heterogeneous tumors in silico. <i>Physical Review E</i> , 2009 , 80, 051910	2.4	18
265	Statistical properties of determinantal point processes in high-dimensional Euclidean spaces. <i>Physical Review E</i> , 2009 , 79, 041108	2.4	46
264	Interactions leading to disordered ground states and unusual low-temperature behavior. <i>Physical Review E</i> , 2009 , 80, 031105	2.4	14
263	Novel low-temperature behavior in classical many-particle systems. <i>Physical Review Letters</i> , 2009 , 103, 050602	7.4	18
262	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
261	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
260	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
259	Dense packings of the Platonic and Archimedean solids. <i>Nature</i> , 2009 , 460, 876-9	50.4	319
258	Complete band gaps in two-dimensional photonic quasicrystals. <i>Physical Review B</i> , 2009 , 80,	3.3	80
257	Dense packings of polyhedra: Platonic and Archimedean solids. <i>Physical Review E</i> , 2009 , 80, 041104	2.4	135
256	Inverse optimization techniques for targeted self-assembly. <i>Soft Matter</i> , 2009 , 5, 1157	3.6	147
255	Method for obtaining upper bounds on photonic band gaps. <i>Physical Review B</i> , 2009 , 80,	3.3	5
254	Optimal packings of superballs. <i>Physical Review E</i> , 2009 , 79, 041309	2.4	114
253	Effective dielectric tensor for electromagnetic wave propagation in random media. <i>Journal of Applied Physics</i> , 2008 , 103, 084901	2.5	34
252	Negative Poisson's ratio materials via isotropic interactions. <i>Physical Review Letters</i> , 2008 , 101, 085501	7.4	36
251	Estimates of the optimal density of sphere packings in high dimensions. <i>Journal of Mathematical Physics</i> , 2008 , 49, 043301	1.2	30
250	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
249	Simulating tumor growth in confined heterogeneous environments. <i>Physical Biology</i> , 2008 , 5, 036010	3	44

248	Gaussian core model phase diagram and pair correlations in high Euclidean dimensions. <i>Journal of Chemical Physics</i> , 2008 , 128, 224505	3.9	31
247	A novel three-phase model of brain tissue microstructure. <i>PLoS Computational Biology</i> , 2008 , 4, e1000152	3.9	43
246	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
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