

Sergei N Taraskin

List of Publications by Year in descending order

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54
papers

1,474
citations

393982

19
h-index

315357

38
g-index

54
all docs

54
docs citations

54
times ranked

1362
citing authors

#	ARTICLE	IF	CITATIONS
1	Origin of the Boson Peak in Systems with Lattice Disorder. <i>Physical Review Letters</i> , 2001, 86, 1255-1258.	2.9	259
2	Nature of vibrational excitations in vitreous silica. <i>Physical Review B</i> , 1997, 56, 8605-8622.	1.1	215
3	Anharmonicity and localization of atomic vibrations in vitreous silica. <i>Physical Review B</i> , 1999, 59, 8572-8585.	1.1	115
4	Universal Features of Terahertz Absorption in Disordered Materials. <i>Physical Review Letters</i> , 2006, 97, 055504.	2.9	94
5	Connection between the true vibrational density of states and that derived from inelastic neutron scattering. <i>Physical Review B</i> , 1997, 55, 117-123.	1.1	89
6	Phonons in vitreous silica: Dispersion and localization. <i>Europhysics Letters</i> , 1997, 39, 37-42.	0.7	81
7	Explosive Contagion in Networks. <i>Scientific Reports</i> , 2016, 6, 19767.	1.6	62
8	Propagation of plane-wave vibrational excitations in disordered systems. <i>Physical Review B</i> , 2000, 61, 12017-12030.	1.1	58
9	Universal features of localized eigenstates in disordered systems. <i>Journal of Physics Condensed Matter</i> , 2005, 17, L321-L327.	0.7	38
10	Heterogeneity in susceptibleâ€“infectedâ€“removed (SIR) epidemics on lattices. <i>Journal of the Royal Society Interface</i> , 2011, 8, 201-209.	1.5	32
11	Prominent Effect of Soil Network Heterogeneity on Microbial Invasion. <i>Physical Review Letters</i> , 2012, 109, 098102.	2.9	31
12	Real and reciprocal space structural correlations contributing to the first sharp diffraction peak in silica glass. <i>Physical Review B</i> , 2005, 71, .	1.1	29
13	Fast Time-Evolution Method for Dynamical Systems. <i>Physical Review Letters</i> , 2000, 84, 2290-2293.	2.9	26
14	Disorder-induced vibrational localization. <i>Physical Review B</i> , 2003, 67, .	1.1	26
15	Spatial Decay of the Single-Particle Density Matrix in Insulators: Analytic Results in Two and Three Dimensions. <i>Physical Review Letters</i> , 2002, 88, 196405.	2.9	25
16	Atomic charge distribution in sodosilicate glasses from terahertz time-domain spectroscopy. <i>Physical Review B</i> , 2010, 82, .	1.1	25
17	Vibrational properties of the one-component β phase. <i>Physical Review B</i> , 2000, 62, 3223-3231.	1.1	23
18	Vector vibrations and the Ioffe-Regel crossover in disordered lattices. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 3143-3166.	0.7	22

#	ARTICLE	IF	CITATIONS
19	Spatial decay of the single-particle density matrix in tight-binding metals: Analytic results in two dimensions. <i>Physical Review B</i> , 2002, 66, .	1.1	19
20	Disorder-induced zero-energy spectral singularity for random matrices with correlations. <i>Physical Review B</i> , 2002, 65, .	1.1	19
21	Temporal and Dimensional Effects in Evolutionary Graph Theory. <i>Physical Review Letters</i> , 2007, 98, 098103.	2.9	18
22	Nature of vibrational eigenmodes in topologically disordered solids. <i>Physical Review B</i> , 2002, 65, .	1.1	16
23	Effects of local and global network connectivity on synergistic epidemics. <i>Physical Review E</i> , 2015, 92, 062814.	0.8	16
24	Strong self-trapping in semiconducting two-band systems. <i>Physical Review B</i> , 1993, 47, 10235-10243.	1.1	14
25	Effects of variable-state neighborhoods for spreading synergistic processes on lattices. <i>Physical Review E</i> , 2013, 88, 062815.	0.8	13
26	Propagation, hybridization and localization of vibrational excitations in disordered materials. , 0, .		12
27	Mechanisms of evolution of avalanches in regular graphs. <i>Physical Review E</i> , 2013, 87, 062122.	0.8	11
28	The dispersion of vibrational excitations in vitreous silica. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1998, 77, 403-420.	0.6	10
29	Determination of the Ioffe-Regel limit for vibrational excitations in disordered materials. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1999, 79, 1747-1754.	0.6	9
30	Capillary condensation in one-dimensional irregular confinement. <i>Physical Review E</i> , 2013, 88, 012139.	0.8	9
31	Propagation, hybridization and localization of vibrational excitations in disordered materials. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2002, 82, 197-208.	0.6	7
32	The atomic charge distribution in glasses obtained by terahertz spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 455216.	0.7	6
33	Infrared absorption in glasses and their crystalline counterparts. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 415113.	0.7	6
34	Exact spin-spin correlation function for the zero-temperature random-field Ising model. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2012, 2012, P01001.	0.9	6
35	The two-mutant problem: clonal interference in evolutionary graph theory. <i>Journal of Chemical Biology</i> , 2010, 3, 189-194.	2.2	4
36	Addendum and Erratum: Nature of vibrational excitations in vitreous silica [<i>Phys. Rev. B</i> 56, 8605 (1997)]. <i>Physical Review B</i> , 2016, 94, .	1.1	4

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37	Extinction of epidemics in lattice models with quenched disorder. <i>Physical Review E</i> , 2005, 72, 016111.	0.8	3
38	Spectral properties of disordered fully connected graphs. <i>Physical Review E</i> , 2005, 72, 056126.	0.8	3
39	Phonon traces in glassy vibrations. <i>Physical Review B</i> , 2020, 102, .	1.1	3
40	The vibrational spectrum of amorphous materials obtained by the use of an Anderson-like Hamiltonian. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1999, 79, 1755-1761.	0.6	2
41	Atomic vibrations in disordered systems: Comparison of disordered diamond lattices and a realistic amorphous silicon model. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 2904-2907.	0.8	2
42	Statistical properties of the critical eigenstates in power-law random banded matrices across the band. <i>Physical Review B</i> , 2005, 72, .	1.1	2
43	Connection between structural characteristics of glasses and their crystalline counterparts. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 455215.	0.7	2
44	Effect of disorder on condensation in the lattice gas model on a random graph. <i>Physical Review E</i> , 2014, 90, 012144.	0.8	2
45	Quasilocalized Vibrations in Vitreous Silica. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000422.	0.7	2
46	Pressure-Induced Delocalization of Charge Carriers (?Insulator-Metal? Transition) and Magnetic Transformation in Glassy Semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , 1999, 211, 501-506.	0.7	1
47	Spectral density of vibrational excitations in lattices with force-constant disorder. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2001, 81, 1263-1272.	0.6	1
48	Zero-temperature random-field Ising model on a bilayered Bethe lattice. <i>Physical Review E</i> , 2013, 88, 022117.	0.8	1
49	Steady-state random walk on connected graph of arbitrary topology with random and non-symmetric transition rates. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 1029-1043.	0.7	1
50	Extracting the vibrational density of states from neutron scattering data: beyond the effective density of states. , 1999, , .		0
51	Scattering of plane-wave atomic vibrations in disordered structures. , 1999, , .		0
52	Steady-state random walk on connected graph of arbitrary topology with random and non-symmetric transition rates. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 1028-1028.	0.7	0
53	A single-walker approach for studying quasi-nonergodic systems. <i>Scientific Reports</i> , 2017, 7, 2242.	1.6	0
54	Strong two-band electron self-trapping, state hybridization effects and related pressure-induced phenomena in semiconductors. , 1995, , 402-426.		0