

Alexander Teplyaev

List of Publications by Year in descending order

Source: [//exaly.com/author-pdf/4084684/publications.pdf](https://exaly.com/author-pdf/4084684/publications.pdf)

Version: 2024-02-01

56
papers

1,145
citations

354809

18
h-index

366368

31
g-index

67
all docs

67
docs citations

67
times ranked

205
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectral Analysis on Infinite Sierpiński Gaskets. <i>Journal of Functional Analysis</i> , 1998, 159, 537-567.	1.3	110
2	What Is Not in the Domain of the Laplacian on Sierpinski Gasket Type Fractals. <i>Journal of Functional Analysis</i> , 1999, 166, 197-217.	1.3	88
3	Uniqueness of Brownian motion on Sierpiński carpets. <i>Journal of the European Mathematical Society</i> , 2010, 12, 655-701.	1.3	64
4	Thermodynamics of Photons on Fractals. <i>Physical Review Letters</i> , 2010, 105, 230407.	7.8	64
5	Self-Similarity, Operators and Dynamics. <i>Mathematical Physics Analysis and Geometry</i> , 2003, 6, 201-218.	1.0	57
6	Gradients on Fractals. <i>Journal of Functional Analysis</i> , 2000, 174, 128-154.	1.3	54
7	Harmonic Coordinates on Fractals with Finitely Ramified Cell Structure. <i>Canadian Journal of Mathematics</i> , 2008, 60, 457-480.	0.8	48
8	Dirac and magnetic Schrödinger operators on fractals. <i>Journal of Functional Analysis</i> , 2013, 265, 2830-2854.	1.3	35
9	Derivations and Dirichlet forms on fractals. <i>Journal of Functional Analysis</i> , 2012, 263, 2141-2169.	1.3	33
10	Spectral analysis on infinite Sierpiński fractafolds. <i>Journal D'Analyse Mathématique</i> , 2012, 116, 255-297.	0.8	29
11	Laplacians on the basilica Julia set. <i>Communications on Pure and Applied Analysis</i> , 2010, 9, 211-231.	0.8	27
12	Spatial log-periodic oscillations of first-passage observables in fractals. <i>Physical Review E</i> , 2012, 86, 061125.	2.1	24
13	Vector analysis for Dirichlet forms and quasilinear PDE and SPDE on metric measure spaces. <i>Stochastic Processes and Their Applications</i> , 2013, 123, 4373-4406.	0.9	24
14	Calculus on the Sierpinski gasket I: polynomials, exponentials and power series. <i>Journal of Functional Analysis</i> , 2004, 215, 290-340.	1.3	20
15	Electrical resistance of N-gasket fractal networks. <i>Pacific Journal of Mathematics</i> , 2007, 233, 15-40.	0.4	20
16	Perfect quantum state transfer on diamond fractal graphs. <i>Quantum Information Processing</i> , 2020, 19, 1.	2.2	19
17	The Spectrum of the Laplacian on the Pentagasket. , 2003, , 1-24.		19
18	Energy and Laplacian on Hanoi-type fractal quantum graphs. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016, 49, 165206.	2.1	18

#	ARTICLE	IF	CITATIONS
19	Dirichlet forms on the Sierpiński gasket. Pacific Journal of Mathematics, 2004, 217, 149-174.	0.4	18
20	Disconnected Julia sets and gaps in the spectrum of Laplacians on symmetric finitely ramified fractals. Mathematical Research Letters, 2012, 19, 537-553.	0.5	16
21	One-dimensional wave equations defined by fractal Laplacians. Journal D'Analyse Mathématique, 2015, 127, 219-246.	0.8	14
22	Spectra of perfect state transfer Hamiltonians on fractal-like graphs. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 125301.	2.1	14
23	Metric and spectral triples for Dirichlet and resistance forms. Journal of Noncommutative Geometry, 2015, 9, 359-390.	0.5	13
24	Besov class via heat semigroup on Dirichlet spaces II: BV functions and Gaussian heat kernel estimates. Calculus of Variations and Partial Differential Equations, 2020, 59, 1.	1.6	13
25	Existence of a Meromorphic Extension of Spectral Zeta Functions on Fractals. Letters in Mathematical Physics, 2013, 103, 1377-1388.	1.2	12
26	Spectral dimension and Bohr's formula for Schrödinger operators on unbounded fractal spaces. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 395203.	2.1	12
27	Besov class via heat semigroup on Dirichlet spaces I: Sobolev type inequalities. Journal of Functional Analysis, 2020, 278, 108459.	1.3	11
28	Spectral Zeta Function of Symmetric Fractals. , 2004, , 245-262.		11
29	Products of random matrices and derivatives on p.c.f. fractals. Journal of Functional Analysis, 2008, 254, 1188-1216.	1.3	10
30	Singularly continuous spectrum of a self-similar Laplacian on the half-line. Journal of Mathematical Physics, 2016, 57, .	1.2	10
31	Besov class via heat semigroup on Dirichlet spaces III: BV functions and sub-Gaussian heat kernel estimates. Calculus of Variations and Partial Differential Equations, 2021, 60, 1.	1.6	10
32	A note on the theorems of M.G. Krein and L.A. Sakhnovich on continuous analogs of orthogonal polynomials on the circle. Journal of Functional Analysis, 2005, 226, 257-280.	1.3	9
33	Power dissipation in fractal AC circuits. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 325205.	2.1	9
34	On the existence of optimal shapes in architecture. Applied Mathematical Modelling, 2021, 94, 676-687.	4.3	9
35	Energy partition on fractals. Indiana University Mathematics Journal, 2003, 52, 133-156.	0.9	8
36	Spectral analysis on Barlow and Evans's projective limit fractals. Journal of Spectral Theory, 2021, 11, 91-123.	0.9	8

#	ARTICLE	IF	CITATIONS
37	Wave Equation on One-Dimensional Fractals with Spectral Decimation and the Complex Dynamics of Polynomials. <i>Journal of Fourier Analysis and Applications</i> , 2017, 23, 994-1027.	1.0	6
38	Regularized Laplacian determinants of self-similar fractals. <i>Letters in Mathematical Physics</i> , 2018, 108, 1563-1579.	1.2	6
39	Non-Lipschitz Uniform Domain Shape Optimization in Linear Acoustics. <i>SIAM Journal on Control and Optimization</i> , 2021, 59, 1007-1032.	2.2	6
40	Fractal AC Circuits and Propagating Waves on Fractals. <i>Fractals and Dynamics in Mathematics, Science and the Arts</i> , 2020, , 557-567.	0.0	6
41	Random Walks on Barycentric Subdivisions and the Strichartz Hexacarpet. <i>Experimental Mathematics</i> , 2012, 21, 402-417.	0.7	5
42	Fractal snowflake domain diffusion with boundary and interior drifts. <i>Journal of Mathematical Analysis and Applications</i> , 2018, 457, 672-693.	1.1	4
43	Harmonic Coordinates on Fractals with Finitely Ramified Cell Structure. <i>Canadian Journal of Mathematics</i> , 2008, 60, 457.	0.8	4
44	Mixed boundary valued problems for linear and nonlinear wave equations in domains with fractal boundaries. <i>Calculus of Variations and Partial Differential Equations</i> , 2022, 61, 1.	1.6	4
45	Infinite dimensional i.f.s. and smooth functions on the Sierpinski gasket. <i>Indiana University Mathematics Journal</i> , 2007, 56, 1377-1404.	0.9	3
46	Hamiltonian systems, Toda lattices, solitons, Lax pairs on weighted Z-graded graphs. <i>Journal of Mathematical Physics</i> , 2021, 62, .	1.2	3
47	Finite Energy Coordinates and Vector Analysis on Fractals. <i>Progress in Probability</i> , 2015, , 209-227.	0.0	3
48	Magnetostatic Problems in Fractal Domains. <i>Fractals and Dynamics in Mathematics, Science and the Arts</i> , 2020, , 477-502.	0.0	3
49	Densely defined non-closable curl on carpet-like metric measure spaces. <i>Mathematische Nachrichten</i> , 2018, 291, 1743-1756.	0.7	2
50	From Non-symmetric Particle Systems to Non-linear PDEs on Fractals. <i>Springer Proceedings in Mathematics and Statistics</i> , 2018, , 503-513.	0.0	2
51	Dual graphs and modified Barlow-Bass resistance estimates for repeated barycentric subdivisions. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2019, 12, 27-42.	1.1	2
52	Discretization of the Koch Snowflake Domain with Boundary and Interior Energies. <i>SEMA SIMAI Springer Series</i> , 2021, , 79-102.	0.0	2
53	Spectral decimation of a self-similar version of almost Mathieu-type operators. <i>Journal of Mathematical Physics</i> , 2022, 63, .	1.2	2
54	Ornstein-Uhlenbeck processes with singular drifts: integral estimates and Girsanov densities. <i>Probability Theory and Related Fields</i> , 2020, 178, 861-891.	1.7	1

#	ARTICLE	IF	CITATIONS
55	Gaps labeling theorem for the bubble-diamond self-similar graphs. Journal of Physics A: Mathematical and Theoretical, 0, , .	2.1	0
56	Quantitative approach to Grover's quantum walk on graphs. Quantum Information Processing, 2024, 23, .	2.2	0