

Ka-Sing Lau

List of Publications by Year in descending order

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101
papers

2,884
citations

186265

28
h-index

197818

49
g-index

101
all docs

101
docs citations

101
times ranked

606
citing authors

#	ARTICLE	IF	CITATIONS
1	Gromov hyperbolic graphs arising from iterations. <i>Advances in Mathematics</i> , 2021, 389, 107908.	1.1	0
2	Random Walks and Induced Dirichlet Forms on Compact Spaces of Homogeneous Type. <i>Fractals and Dynamics in Mathematics, Science and the Arts</i> , 2020, , 273-296.	0.2	1
3	Characterization of a class of planar self-affine tile digit sets. <i>Transactions of the American Mathematical Society</i> , 2019, 371, 7627-7650.	0.9	2
4	On a recursive construction of Dirichlet form on the Sierpiński gasket. <i>Journal of Mathematical Analysis and Applications</i> , 2019, 474, 674-692.	1.0	4
5	Dirichlet forms and critical exponents on fractals. <i>Transactions of the American Mathematical Society</i> , 2019, 373, 1619-1652.	0.9	6
6	Limiting Behavior of Infinite Products Scaled by Pisot Numbers. <i>Journal of Fourier Analysis and Applications</i> , 2019, 25, 1695-1707.	1.0	2
7	A Counterexample to the "Hot Spots" Conjecture on Nested Fractals. <i>Journal of Fourier Analysis and Applications</i> , 2018, 24, 210-225.	1.0	3
8	Cauchy transforms of self-similar measures: Starlikeness and univalence. <i>Transactions of the American Mathematical Society</i> , 2017, 369, 4817-4842.	0.9	13
9	On hyperbolic graphs induced by iterated function systems. <i>Advances in Mathematics</i> , 2017, 313, 357-378.	1.1	9
10	Random walks and induced Dirichlet forms on self-similar sets. <i>Advances in Mathematics</i> , 2017, 320, 1099-1134.	1.1	11
11	Some Recent Developments of Self-Affine Tiles. <i>Trends in Mathematics</i> , 2017, , 207-232.	0.1	1
12	Classification of tile digit sets as product-forms. <i>Transactions of the American Mathematical Society</i> , 2016, 369, 623-644.	0.9	13
13	Generalized capacity, Harnack inequality and heat kernels of Dirichlet forms on metric measure spaces. <i>Journal of the Mathematical Society of Japan</i> , 2015, 67, .	0.4	25
14	Spectrality of Self-Similar Tiles. <i>Constructive Approximation</i> , 2015, 42, 519-541.	3.0	32
15	Lipschitz equivalence of self-similar sets and hyperbolic boundaries II. <i>Journal of Fractal Geometry</i> , 2015, 2, 53-79.	0.7	9
16	Sierpinski-type spectral self-similar measures. <i>Journal of Functional Analysis</i> , 2015, 269, 1310-1326.	1.4	70
17	Spectrality of a class of infinite convolutions. <i>Advances in Mathematics</i> , 2015, 283, 362-376.	1.1	69
18	Denker's Sato type Markov chains on self-similar sets. <i>Mathematische Zeitschrift</i> , 2015, 280, 401-420.	0.9	15

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19	Estimates of heat kernels for non-local regular Dirichlet forms. Transactions of the American Mathematical Society, 2014, 366, 6397-6441.	0.9	28
20	On spectral N -Bernoulli measures. Advances in Mathematics, 2014, 259, 511-531.	1.1	132
21	Boundary theory on the Hata tree. Nonlinear Analysis: Theory, Methods & Applications, 2014, 95, 292-307.	1.1	6
22	Heat Kernels on Metric Measure Spaces. Springer Proceedings in Mathematics and Statistics, 2014, , 147-207.	0.2	12
23	Lipschitz equivalence of self-similar sets and hyperbolic boundaries. Advances in Mathematics, 2013, 235, 555-579.	1.1	35
24	Exponential spectra in L^1 . Applied and Computational Harmonic Analysis, 2013, 34, 327-338.	2.2	74
25	Cantor boundary behavior of analytic functions. Advances in Mathematics, 2013, 232, 543-570.	1.1	19
26	Spectral structure of digit sets of self-similar tiles on \mathbb{R}^1 . Transactions of the American Mathematical Society, 2013, 365, 3831-3850.	0.9	24
27	On the equivalence of homogeneous iterated function systems. Nonlinearity, 2013, 26, 2767-2775.	1.4	10
28	Post-critically finite fractal and Martin boundary. Transactions of the American Mathematical Society, 2012, 364, 103-118.	0.9	12
29	Martin boundary and exit space on the Sierpinski gasket. Science China Mathematics, 2012, 55, 475-494.	1.7	7
30	Height reducing property of polynomials and self-affine tiles. Geometriae Dedicata, 2011, 152, 153-164.	0.3	13
31	Connectedness of a class of planar self-affine tiles. Journal of Mathematical Analysis and Applications, 2011, 380, 493-500.	1.0	29
32	Comparison inequalities for heat semigroups and heat kernels on metric measure spaces. Journal of Functional Analysis, 2010, 259, 2613-2641.	1.4	26
33	Cantor Boundary Behavior of Analytic Functions. Applied and Numerical Harmonic Analysis, 2010, , 283-294.	0.3	8
34	Self-similar sets as hyperbolic boundaries. Indiana University Mathematics Journal, 2009, 58, 1777-1796.	0.9	24
35	Heat Kernels on Metric Spaces with Doubling Measure. , 2009, , 3-44.		15
36	Separation conditions for conformal iterated function systems. Monatshefte Fur Mathematik, 2009, 156, 325-355.	0.9	28

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37	Multifractal formalism for self-similar measures with weak separation condition. Journal Des Mathematiques Pures Et Appliquees, 2009, 92, 407-428.	1.6	58
38	On a generalized dimension of self-affine fractals. Mathematische Nachrichten, 2008, 281, 1142-1158.	0.8	27
39	Obtaining upper bounds of heat kernels from lower bounds. Communications on Pure and Applied Mathematics, 2008, 61, 639-660.	3.1	10
40	Spectral property of the Bernoulli convolutions. Advances in Mathematics, 2008, 219, 554-567.	1.1	146
41	Open set condition and post-critically finite self-similar sets. Nonlinearity, 2008, 21, 1227-1232.	1.4	14
42	Self-affine measures and vector-valued representations. Studia Mathematica, 2008, 188, 259-289.	0.7	7
43	The spectrum of Poincaré recurrence. Ergodic Theory and Dynamical Systems, 2008, 28, 1917.	0.6	10
44	Disklikeness of planar self-affine tiles. Transactions of the American Mathematical Society, 2007, 359, 3337-3356.	0.9	38
45	A generalized finite type condition for iterated function systems. Advances in Mathematics, 2007, 208, 647-671.	1.1	39
46	Equivalence conditions for on-diagonal upper bounds of heat kernels on self-similar spaces. Journal of Functional Analysis, 2006, 237, 427-445.	1.4	2
47	Update operators related to self-similar measures on $\langle \text{mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="ht, Journal of Functional$	1.4	25
48	Some exceptional phenomena in multifractal formalism: Part I. Asian Journal of Mathematics, 2005, 9, 275-294.	0.3	25
49	Some Exceptional Phenomena in Multifractal Formalism: Part II. Asian Journal of Mathematics, 2005, 9, 473-488.	0.3	11
50	An Integral Related to the Cauchy Transform on the Sierpinski Gasket. Experimental Mathematics, 2004, 13, 415-419.	0.7	11
51	Expanding Polynomials and Connectedness of Self-Affine Tiles. Discrete and Computational Geometry, 2004, 31, 275-286.	0.6	29
52	Fractal analysis of measure representation of large proteins based on the detailed HP model. Physica A: Statistical Mechanics and Its Applications, 2004, 337, 171-184.	2.6	28
53	Chaos game representation of protein sequences based on the detailed HP model and their multifractal and correlation analyses. Journal of Theoretical Biology, 2004, 226, 341-348.	1.7	123
54	Characterization of tile digit sets with prime determinants. Applied and Computational Harmonic Analysis, 2004, 16, 159-173.	2.2	15

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55	Wavelet decomposition of Calderón-Zygmund operators on function spaces. Journal of the Australian Mathematical Society, 2004, 77, 29-46.	0.4	4
56	Iterated function systems with a weak separation condition. Studia Mathematica, 2004, 161, 249-268.	0.7	24
57	The genomic tree of living organisms based on a fractal model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 317, 293-302.	2.1	19
58	Cauchy transforms of self-similar measures: the Laurent coefficients. Journal of Functional Analysis, 2003, 202, 67-97.	1.4	20
59	Multifractal and correlation analyses of protein sequences from complete genomes. Physical Review E, 2003, 68, 021913.	2.1	77
60	Iterated Function System and Multifractal Analysis of Biological Sequences. International Journal of Modern Physics B, 2003, 17, 4367-4375.	2.0	9
61	Dimensions of the Boundaries of Self-Similar Sets. Experimental Mathematics, 2003, 12, 13-26.	0.7	4
62	Heat kernels on metric measure spaces and an application to semilinear elliptic equations. Transactions of the American Mathematical Society, 2003, 355, 2065-2095.	0.9	108
63	On one-dimensional self-similar tilings and \mathbb{P}^2 -tiles. Transactions of the American Mathematical Society, 2002, 355, 1401-1414.	0.9	21
64	Ergodic Limits on the Conformal Repellers. Advances in Mathematics, 2002, 169, 58-91.	1.1	73
65	Relationships between Different Dimensions of a Measure. Monatshefte Fur Mathematik, 2002, 135, 191-201.	0.9	47
66	Fourier asymptotics of Cantor type measures at infinity. Proceedings of the American Mathematical Society, 2002, 130, 2711-2717.	0.8	5
67	ON THE SELF-AFFINE SETS AND THE SCALING FUNCTIONS. , 2002, , .		1
68	L_p solutions of refinement equations. Journal of Fourier Analysis and Applications, 2001, 7, 143-167.	1.0	33
69	Multifractal characterisation of length sequences of coding and noncoding segments in a complete genome. Physica A: Statistical Mechanics and Its Applications, 2001, 301, 351-361.	2.6	31
70	Multifractal Structure of Convolution of the Cantor Measure. Advances in Applied Mathematics, 2001, 27, 1-16.	0.7	26
71	Volume 231, Number 2 (1999), in the article "Iterated Function System and Ruelle Operator," by Ai Hua Fan and Ka-Sing Lau, pages 319-344 (1999). Journal of Mathematical Analysis and Applications, 2001, 262, 446-451.	1.0	11
72	Iterated Function Systems with Overlaps and Self-Similar Measures. Journal of the London Mathematical Society, 2001, 63, 99-116.	1.0	57

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73	Multifractal characterization of complete genomes. <i>Journal of Physics A</i> , 2001, 34, 7127-7139.	1.6	27
74	Measure representation and multifractal analysis of complete genomes. <i>Physical Review E</i> , 2001, 64, 031903.	2.1	98
75	Second-order self-similar identities and multifractal decompositions. <i>Indiana University Mathematics Journal</i> , 2000, 49, 0-0.	0.9	25
76	On the Connectedness of Self-Affine Tiles. <i>Journal of the London Mathematical Society</i> , 2000, 62, 291-304.	1.0	68
77	Asymptotic regularity of Daubechiesâ€™ scaling functions. <i>Proceedings of the American Mathematical Society</i> , 2000, 128, 1087-1095.	0.8	6
78	Iterated function systems with overlaps. <i>Asian Journal of Mathematics</i> , 2000, 4, 527-552.	0.3	18
79	Iterated Function System and Ruelle Operator. <i>Journal of Mathematical Analysis and Applications</i> , 1999, 231, 319-344.	1.0	71
80	Multifractal Measures and a Weak Separation Condition. <i>Advances in Mathematics</i> , 1999, 141, 45-96.	1.1	162
81	On the boundary of attractors with non-void interior. <i>Proceedings of the American Mathematical Society</i> , 1999, 128, 1761-1768.	0.8	5
82	Asymptotic behavior of multiperiodic functions $G(x) = \prod_{n=1}^{\infty} g(x/2^n)$. <i>Journal of Fourier Analysis and Applications</i> , 1998, 4, 129-150.	1.0	21
83	On the discount sum of Bernoulli random variables. <i>Journal of Statistical Planning and Inference</i> , 1997, 63, 231-246.	0.6	1
84	The regularity of L^p -scaling functions. <i>Asian Journal of Mathematics</i> , 1997, 1, 272-292.	0.3	6
85	On Some Sharp Regularity Estimations of L^2 -Scaling Functions. <i>SIAM Journal on Mathematical Analysis</i> , 1996, 27, 835-864.	1.9	16
86	A Weighted Tauberian Theorem. <i>Journal of Fourier Analysis and Applications</i> , 1995, 2, 397-406.	1.0	1
87	Characterization of L^p -Solutions for the Two-Scale Dilation Equations. <i>SIAM Journal on Mathematical Analysis</i> , 1995, 26, 1018-1046.	1.9	60
88	Self-Similarity, L^p -Spectrum and Multifractal Formalism. , 1995, , 55-90.		15
89	Mean quadratic variations and Fourier asymptotics of self-similar measures. <i>Monatshefte Fur Mathematik</i> , 1993, 115, 99-132.	0.9	51
90	Fractal dimensions and singularities of the Weierstrass type functions. <i>Transactions of the American Mathematical Society</i> , 1993, 335, 649-665.	0.9	55

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91	Fractal measures and mean p-variations. <i>Journal of Functional Analysis</i> , 1992, 108, 427-457.	1.4	50
92	The sum of Rademacher functions and Hausdorff dimension. <i>Mathematical Proceedings of the Cambridge Philosophical Society</i> , 1990, 108, 97-103.	0.4	16
93	Wiener transformation on functions with bounded averages. <i>Proceedings of the American Mathematical Society</i> , 1990, 108, 411-411.	0.8	2
94	On an equivalent class of norms for BMO. <i>Journal of the Australian Mathematical Society Series A Pure Mathematics and Statistics</i> , 1989, 46, 289-295.	0.3	4
95	Some new classes of Hardy spaces. <i>Journal of Functional Analysis</i> , 1989, 84, 255-278.	1.4	92
96	Extension of Wiener's Tauberian Identity and Multipliers on the Marcinkiewicz Space. <i>Transactions of the American Mathematical Society</i> , 1983, 277, 489.	0.9	5
97	Extension of Wiener's Tauberian identity and multipliers on the Marcinkiewicz space. <i>Transactions of the American Mathematical Society</i> , 1983, 277, 489-506.	0.9	5
98	On the Banach spaces of functions with bounded upper means. <i>Pacific Journal of Mathematics</i> , 1980, 91, 153-172.	0.5	8
99	Best approximation by closed sets in Banach spaces. <i>Journal of Approximation Theory</i> , 1978, 23, 29-36.	0.8	14
100	On almost Chebyshev subspaces. <i>Journal of Approximation Theory</i> , 1977, 21, 319-327.	0.8	3
101	On strongly exposing functionals. <i>Journal of the Australian Mathematical Society</i> , 1976, 21, 362-367.	0.4	4