

Ka-Sing Lau

List of Publications by Year in descending order

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papers

2,884
citations

186265

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g-index

101
all docs

101
docs citations

101
times ranked

606
citing authors

#	ARTICLE	IF	CITATIONS
1	Multifractal Measures and a Weak Separation Condition. <i>Advances in Mathematics</i> , 1999, 141, 45-96.	1.1	162
2	Spectral property of the Bernoulli convolutions. <i>Advances in Mathematics</i> , 2008, 219, 554-567.	1.1	146
3	On spectral N -Bernoulli measures. <i>Advances in Mathematics</i> , 2014, 259, 511-531.	1.1	132
4	Chaos game representation of protein sequences based on the detailed HP model and their multifractal and correlation analyses. <i>Journal of Theoretical Biology</i> , 2004, 226, 341-348.	1.7	123
5	Heat kernels on metric measure spaces and an application to semilinear elliptic equations. <i>Transactions of the American Mathematical Society</i> , 2003, 355, 2065-2095.	0.9	108
6	Measure representation and multifractal analysis of complete genomes. <i>Physical Review E</i> , 2001, 64, 031903.	2.1	98
7	Some new classes of Hardy spaces. <i>Journal of Functional Analysis</i> , 1989, 84, 255-278.	1.4	92
8	Multifractal and correlation analyses of protein sequences from complete genomes. <i>Physical Review E</i> , 2003, 68, 021913.	2.1	77
9	Exponential spectra in L^p -Solutions for the Two-Scale Dilation Equations. <i>Applied and Computational Harmonic Analysis</i> , 2013, 34, 327-338.	2.2	74
10	Ergodic Limits on the Conformal Repellers. <i>Advances in Mathematics</i> , 2002, 169, 58-91.	1.1	73
11	Iterated Function System and Ruelle Operator. <i>Journal of Mathematical Analysis and Applications</i> , 1999, 231, 319-344.	1.0	71
12	Sierpinski-type spectral self-similar measures. <i>Journal of Functional Analysis</i> , 2015, 269, 1310-1326.	1.4	70
13	Spectrality of a class of infinite convolutions. <i>Advances in Mathematics</i> , 2015, 283, 362-376.	1.1	69
14	On the Connectedness of Self-Affine Tiles. <i>Journal of the London Mathematical Society</i> , 2000, 62, 291-304.	1.0	68
15	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
16	Multifractal formalism for self-similar measures with weak separation condition. <i>Journal Des Mathematiques Pures Et Appliquees</i> , 2009, 92, 407-428.	1.6	58
17	Iterated Function Systems with Overlaps and Self-Similar Measures. <i>Journal of the London Mathematical Society</i> , 2001, 63, 99-116.	1.0	57
18	Fractal dimensions and singularities of the Weierstrass type functions. <i>Transactions of the American Mathematical Society</i> , 1993, 335, 649-665.	0.9	55

#	ARTICLE	IF	CITATIONS
19	Mean quadratic variations and Fourier asymptotics of self-similar measures. Monatshefte Fur Mathematik, 1993, 115, 99-132.	0.9	51
20	Fractal measures and mean p-variations. Journal of Functional Analysis, 1992, 108, 427-457.	1.4	50
21	Relationships between Different Dimensions of a Measure. Monatshefte Fur Mathematik, 2002, 135, 191-201.	0.9	47
22	A generalized finite type condition for iterated function systems. Advances in Mathematics, 2007, 208, 647-671.	1.1	39
23	Disklikeness of planar self-affine tiles. Transactions of the American Mathematical Society, 2007, 359, 3337-3356.	0.9	38
24	Lipschitz equivalence of self-similar sets and hyperbolic boundaries. Advances in Mathematics, 2013, 235, 555-579.	1.1	35
25	L_p solutions of refinement equations. Journal of Fourier Analysis and Applications, 2001, 7, 143-167.	1.0	33
26	Spectrality of Self-Similar Tiles. Constructive Approximation, 2015, 42, 519-541.	3.0	32
27	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
28	Expanding Polynomials and Connectedness of Self-Affine Tiles. Discrete and Computational Geometry, 2004, 31, 275-286.	0.6	29
29	Connectedness of a class of planar self-affine tiles. Journal of Mathematical Analysis and Applications, 2011, 380, 493-500.	1.0	29
30	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
31	Separation conditions for conformal iterated function systems. Monatshefte Fur Mathematik, 2009, 156, 325-355.	0.9	28
32	Estimates of heat kernels for non-local regular Dirichlet forms. Transactions of the American Mathematical Society, 2014, 366, 6397-6441.	0.9	28
33	Multifractal characterization of complete genomes. Journal of Physics A, 2001, 34, 7127-7139.	1.6	27
34	On a generalized dimension of self-affine fractals. Mathematische Nachrichten, 2008, 281, 1142-1158.	0.8	27
35	Multifractal Structure of Convolution of the Cantor Measure. Advances in Applied Mathematics, 2001, 27, 1-16.	0.7	26
36	Comparison inequalities for heat semigroups and heat kernels on metric measure spaces. Journal of Functional Analysis, 2010, 259, 2613-2641.	1.4	26

#	ARTICLE	IF	CITATIONS
37	Second-order self-similar identities and multifractal decompositions. Indiana University Mathematics Journal, 2000, 49, 0-0. Laplace operators related to self-similar measures on $\langle \text{mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="ht.$	0.9	25
38	Generalized capacity, Harnack inequality and heat kernels of Dirichlet forms on metric measure spaces. Journal of the Mathematical Society of Japan, 2015, 67, .	1.4	25
39	A	0.4	25
40	Some exceptional phenomena in multifractal formalism: Part I. Asian Journal of Mathematics, 2005, 9, 275-294.	0.3	25
41	Self-similar sets as hyperbolic boundaries. Indiana University Mathematics Journal, 2009, 58, 1777-1796.	0.9	24
42	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
43	Iterated function systems with a weak separation condition. Studia Mathematica, 2004, 161, 249-268.	0.7	24
44	Asymptotic behavior of multiperiodic functions $G(x) = \prod_{n=1}^{\infty} \{g(x/2^n)\}$. Journal of Fourier Analysis and Applications, 1998, 4, 129-150.	1.0	21
45	On one-dimensional self-similar tilings and p -tilings. Transactions of the American Mathematical Society, 2002, 355, 1401-1414.	0.9	21
46	Cauchy transforms of self-similar measures: the Laurent coefficients. Journal of Functional Analysis, 2003, 202, 67-97.	1.4	20
47	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
48	Cantor boundary behavior of analytic functions. Advances in Mathematics, 2013, 232, 543-570.	1.1	19
49	Iterated function systems with overlaps. Asian Journal of Mathematics, 2000, 4, 527-552.	0.3	18
50	The sum of Rademacher functions and Hausdorff dimension. Mathematical Proceedings of the Cambridge Philosophical Society, 1990, 108, 97-103.	0.4	16
51	On Some Sharp Regularity Estimations of L^2 -Scaling Functions. SIAM Journal on Mathematical Analysis, 1996, 27, 835-864.	1.9	16
52	Characterization of tile digit sets with prime determinants. Applied and Computational Harmonic Analysis, 2004, 16, 159-173.	2.2	15
53	Heat Kernels on Metric Spaces with Doubling Measure. , 2009, , 3-44.		15
54	Denker's Sato type Markov chains on self-similar sets. Mathematische Zeitschrift, 2015, 280, 401-420.	0.9	15

#	ARTICLE	IF	CITATIONS
55	Self-Similarity, L_p -Spectrum and Multifractal Formalism. , 1995, , 55-90.		15
56	Best approximation by closed sets in Banach spaces. Journal of Approximation Theory, 1978, 23, 29-36.	0.8	14
57	Open set condition and post-critically finite self-similar sets. Nonlinearity, 2008, 21, 1227-1232.	1.4	14
58	Height reducing property of polynomials and self-affine tiles. Geometriae Dedicata, 2011, 152, 153-164.	0.3	13
59	Classification of tile digit sets as product-forms. Transactions of the American Mathematical Society, 2016, 369, 623-644.	0.9	13
60	Cauchy transforms of self-similar measures: Starlikeness and univalence. Transactions of the American Mathematical Society, 2017, 369, 4817-4842.	0.9	13
61	Post-critically finite fractal and Martin boundary. Transactions of the American Mathematical Society, 2012, 364, 103-118.	0.9	12
62	Heat Kernels on Metric Measure Spaces. Springer Proceedings in Mathematics and Statistics, 2014, , 147-207.	0.2	12
63	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 ():. Journal of Mathematical Analysis and Applications, 2001, 262, 446-451.	1.0	11
64	An Integral Related to the Cauchy Transform on the Sierpinski Gasket. Experimental Mathematics, 2004, 13, 415-419.	0.7	11
65	Random walks and induced Dirichlet forms on self-similar sets. Advances in Mathematics, 2017, 320, 1099-1134.	1.1	11
66	Some Exceptional Phenomena in Multifractal Formalism: Part II. Asian Journal of Mathematics, 2005, 9, 473-488.	0.3	11
67	Obtaining upper bounds of heat kernels from lower bounds. Communications on Pure and Applied Mathematics, 2008, 61, 639-660.	3.1	10
68	The spectrum of Poincaré recurrence. Ergodic Theory and Dynamical Systems, 2008, 28, 1917.	0.6	10
69	On the equivalence of homogeneous iterated function systems. Nonlinearity, 2013, 26, 2767-2775.	1.4	10
70	Iterated Function System and Multifractal Analysis of Biological Sequences. International Journal of Modern Physics B, 2003, 17, 4367-4375.	2.0	9
71	Lipschitz equivalence of self-similar sets and hyperbolic boundaries II. Journal of Fractal Geometry, 2015, 2, 53-79.	0.7	9
72	On hyperbolic graphs induced by iterated function systems. Advances in Mathematics, 2017, 313, 357-378.	1.1	9

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73	Cantor Boundary Behavior of Analytic Functions. Applied and Numerical Harmonic Analysis, 2010, , 283-294.	0.3	8
74	On the Banach spaces of functions with bounded upper means. Pacific Journal of Mathematics, 1980, 91, 153-172.	0.5	8
75	Self-affine measures and vector-valued representations. Studia Mathematica, 2008, 188, 259-289.	0.7	7
76	Martin boundary and exit space on the Sierpinski gasket. Science China Mathematics, 2012, 55, 475-494.	1.7	7
77	Boundary theory on the Hata tree. Nonlinear Analysis: Theory, Methods & Applications, 2014, 95, 292-307.	1.1	6
78	Dirichlet forms and critical exponents on fractals. Transactions of the American Mathematical Society, 2019, 373, 1619-1652.	0.9	6
79	Asymptotic regularity of Daubechies's scaling functions. Proceedings of the American Mathematical Society, 2000, 128, 1087-1095.	0.8	6
80	The regularity of L^p -scaling functions. Asian Journal of Mathematics, 1997, 1, 272-292.	0.3	6
81	Extension of Wiener's Tauberian Identity and Multipliers on the Marcinkiewicz Space. Transactions of the American Mathematical Society, 1983, 277, 489.	0.9	5
82	On the boundary of attractors with non-void interior. Proceedings of the American Mathematical Society, 1999, 128, 1761-1768.	0.8	5
83	Fourier asymptotics of Cantor type measures at infinity. Proceedings of the American Mathematical Society, 2002, 130, 2711-2717.	0.8	5
84	Extension of Wiener's Tauberian identity and multipliers on the Marcinkiewicz space. Transactions of the American Mathematical Society, 1983, 277, 489-506.	0.9	5
85	On strongly exposing functionals. Journal of the Australian Mathematical Society, 1976, 21, 362-367.	0.4	4
86	On an equivalent class of norms for BMO. Journal of the Australian Mathematical Society Series A Pure Mathematics and Statistics, 1989, 46, 289-295.	0.3	4
87	Dimensions of the Boundaries of Self-Similar Sets. Experimental Mathematics, 2003, 12, 13-26.	0.7	4
88	Wavelet decomposition of Calderón-Zygmund operators on function spaces. Journal of the Australian Mathematical Society, 2004, 77, 29-46.	0.4	4
89	On a recursive construction of Dirichlet form on the Sierpinski gasket. Journal of Mathematical Analysis and Applications, 2019, 474, 674-692.	1.0	4
90	On almost Chebyshev subspaces. Journal of Approximation Theory, 1977, 21, 319-327.	0.8	3

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91	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
92	Wiener transformation on functions with bounded averages. <i>Proceedings of the American Mathematical Society</i> , 1990, 108, 411-411.	0.8	2
93	Equivalence conditions for on-diagonal upper bounds of heat kernels on self-similar spaces. <i>Journal of Functional Analysis</i> , 2006, 237, 427-445.	1.4	2
94	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
95	Limiting Behavior of Infinite Products Scaled by Pisot Numbers. <i>Journal of Fourier Analysis and Applications</i> , 2019, 25, 1695-1707.	1.0	2
96	A Weighted Tauberian Theorem. <i>Journal of Fourier Analysis and Applications</i> , 1995, 2, 397-406.	1.0	1
97	On the discount sum of Bernoulli random variables. <i>Journal of Statistical Planning and Inference</i> , 1997, 63, 231-246.	0.6	1
98	ON THE SELF-AFFINE SETS AND THE SCALING FUNCTIONS. , 2002, , .		1
99	Some Recent Developments of Self-Affine Tiles. <i>Trends in Mathematics</i> , 2017, , 207-232.	0.1	1
100	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
101	Gromov hyperbolic graphs arising from iterations. <i>Advances in Mathematics</i> , 2021, 389, 107908.	1.1	0