

List of Papers

Teturo Kamae

- [1] Triangular inequalities about Kolmogorov's complexity, *Sugaku* 21-3 (1969) pp.211-212 (in Japanese)
- [2] Spectrum of a substitution minimal sets, *J. Math. Soc. Japan* 22-4 (1970) pp.567-578
- [3] A topological invariant of substitution minimal sets, *J. Math. Soc. Japan* 24-2 (1972) pp.285-306
- [4] On unrecognizable sets of numbers by finite automata, *Sugaku* 25-4 (1973) pp.365-367 (in Japanese)
- [5] On Kolmogorov's complexity and information, *Osaka J. Math.* 10-2 (1973) pp.305-307
- [6] Subsequences of normal sequences, *Israel J. Math.* 16-2 (1973) pp.121-149
- [7] (with B. Weiss) Normal numbers and selection rules, *Israel J.Math.* 21-2-3 (1975) pp.101-110
- [8] Normal numbers and ergodic theory, *Proceedings of 3rd Japan-USSR Symposium on Probability Theory, Lecture Notes in Mathematics* 550, Springer-Verlag (1976) pp.253-269
- [9] (with U. Krengel and G. L. O'Brien) Stochastic inequalities on partially ordered spaces, *Ann. Probability* 5-6 (1977) pp.899-912
- [10] (with J. Coquet and M. Mendès France) La mesure spectrale de certaines suites arithmétiques, *Bull. Soc. Math. France* 105 (1977) pp.369-387
- [11] Spectral properties of arithmetic functions, *Séminaire Delange-Pisot-Poitou* 12 (1977)
- [12] Mutual singularity of spectra of dynamical systems given by "sum of digits" to different bases, *Soc. Math.France Astérisque* 49 (1977) pp.109-114
- [13] Infinite interval exchange transformation with positive entropy, *Séminaire de Probabilités II, Université de Rennes* (1977)
- [14] (with U. Krengel) Stochastic partial ordering, *Ann. Probability* 6-6 (1978) pp.1044-1049

- [15] Sum of digits to different bases and mutual singularity of their spectral measures, *Osaka J. Math.* 15 (1978) pp.569-574
- [16] (with M. Mendès France) Van der Corput's difference theorem, *Israel J. Math.* 31-3-4 (1978) pp.335-342
- [17] (with C. Christol, M. Mendès-France and G. Rauzy) Suites algébriques, automatiques et substitutions, *Bull. Soc. Math. France* 108 (1980) pp.401-419
- [18] A simple proof of the ergodic theorem using nonstandard analysis, *Israel J. Math.* 42-4 (1982) pp.284-290
- [19] Information of relative pairwise comparisons, *J. Math. Analysis & Applications* 97-2 (1983) pp.355-373
- [20] A characterization of weakly wandering sequences for nonsingular transformations, *Commentarii Math. Sancti Pauli* 32-1 (1983) pp.55-59
- [21] (with M. Fukui) Information polynomials of graphs, *Number Theory and Combinatorics*, World Scientific Publishing Co. (1985) pp.97-104
- [22] (with Y. Ito and I. Shiokawa) Point spectrum and Hausdorff dimension, *Number Theory and Combinatorics*, World Scientific Publishing Co.(1985) pp.209-227
- [23] (with Y. Dupain and M. Mendès France) Can one measure the temperature of a curve?, *Archive for Rational Mechanics and Analysis* 94-2 (1986) pp.155-163
- [24] A characterization of self-affine functions, *Japan J. Applied Math.* 3-2 (1986) pp.271-280
- [25] Cyclic extensions of odometer transformations and spectral disjointness, *Israel J. Math.* 59-1 (1987) pp.41-63
- [26] (with M. Keane) A class of deterministic self-affine processes, *Japan J. Applied Math.* 7-2 (1990) pp.183-195
- [27] Number theoretic problems involving two independent bases, *Number Theory and Cryptography* (ed. J. H. Loxton), London Math. Soc. Lecture Note Series 154, Cambridge Univ. Press, 1990, pp.196-203
- [28] (with T. Bedford) Stieltjes integration and stochastic calculus with respect to self-affine functions, *Japan J.Industrial & Applied Math.* 8-3 (1991) pp.445-459
- [29] (with J-M. Dumont and S. Takahashi) Minimal cocycles with scaling property and substitutions, *Israel J. Math.* 95 (1996) pp.393-410
- [30] (with M. Mendès France) A continuous family of automata: the Ising automata, *Annales Institut Henri Poincaré* 64-3(1996) pp.349-372
- [31] Multiple search games with nonmovable hyder, *Nova J. Mathemat-*

- ics, Game Theory and Algebra 6-1 (1996) pp.45-54
- [32] (with M. Keane) A simple proof of the ratio ergodic theorem, Osaka J. Math. 34 (1997) pp.653-657
- [33] Linear expansions, strictly ergodic homogeneous cocycles and fractals, Israel J. Math. 106 (1998) pp.313-337
- [34] (with M. Dateyama) On direct sum decomposition of integers and Y. Ito's conjecture, Tokyo J. Math. 21-2 (1998), pp.433-440
- [35] (with Jun-ichi Tamura & Zhi-Ying Wen) Hankel determinants for the Fibonacci word and Padé approximation, Acta Arith. LXXXIX.2 (1999), pp.123-161
- [36] (with Nertila Gjini) Coboundary on colored tiling space as Rauzy fractal, Indagationes Mathematicae 10-3 (1999), pp.407-421
- [37] Stochastic analysis based on deterministic Brownian motion, Israel J. Math. 125 (2001), pp.317-346
- [38] (with J-P. Allouche, J-M. Deshouillers and T. Koyanagi) Automata, algebraicity and distribution of sequences of powers, Ann. Inst. Fourier 51-3 (2001), pp.687-705
- [39] (with Luca Zamboni) Sequence entropy and the maximal pattern complexity of infinite words, Ergodic Theory and Dynamical Systems 22-4 (2002), pp.1191-1199
- [40] (with Luca Zamboni) Maximal pattern complexity for discrete systems, Ergodic Theory and Dynamical Systems 22-4 (2002), pp.1201-1214
- [41] (with Xue Yu-Mei) Two dimensional word with $2k$ maximal pattern complexity, Osaka J. Math. 41 (2004), pp.257-265
- [42] Numeration systems, fractals and stochastic processes, Israel J. Math. 149 (2005), pp.87-135
- [43] (with Rao Hui) Maximal pattern complexity over ℓ letters, European J. Combinatorics 27 (2006), pp.125-137
- [44] (with Hayato Takahashi) Statistical problems related to irrational rotations, Annals of the Institute of Statistical Mathematics vol. 58 (2006) pp.573-593
- [45] (with Rao Hui and Xue Yu-Mei) Maximal pattern complexity of 2-dimensional words, Theoretical Computer Science 359 (2006), pp.15-27
- [46] Maximal pattern complexity as topological invariants (preprint)
- [47] (with Nertila Gjini, Tan Bo and Xue Yu-Mei) Maximal pattern complexity for Toeplitz words, Ergodic Theory and Dynamical Systems 26 (2006), pp. 1-14
- [48] (with Hui RAO, Bo TAN and Yu-Mei XUE) Language Structure

- of Pattern Sturmian Words, *Discrete Mathematics* 306 (2006), pp.1651-1668
- [49] Numeration systems as dynamical systems -Introduction, in *Dynamics & Stochastics*, Institute of Mathematical Statistics Lecture Notes-Monograph Series vol. 48, Beechwood, Ohio, USA, 2006
- [50] Numeration systems as dynamical systems (new version of numeration systems) (preprint)
- [51] Analysis of opposition and cooperation in game theory, *Sugaku Tusin* 11-4 (2007), pp.6-20 (in Japanese)
- [52] Uniform Sets and Complexity, *Discrete Mathematics* 309 (2009), pp.3738-3747
- [53] (with Hui RAO, Bo TAN and Yu-Mei XUE) Super-stationary set, Subword problem and the Complexity, *Discrete Mathematics* 309 (2009), pp.4417-4427
- [54] Mixing properties of the numeration systems coming from weighted substitutions, *Ergodic Theory and Dynamical Systems* 30 (2009). pp.1111-1118
- [55] (with Yu-Mei XUE) Partitions by congruent sets and optimal positions, *Ergodic Theory and Dynamical Systems* 31 (2011), pp.613-629
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- [57] (with Pavel V. Salimov) On maximal pattern complexity of some automatic words, *Ergodic Theory and Dynamical Systems* 31 (2011), pp.1463-1470
- [58] (with S. V. Avgustinovich, A. E. Frid and P. V. Salimov) Infinite permutations of lowest maximal pattern complexity, *Theoretical Computer Science* 412 (2011), pp.2911-2921
- [59] Behavior of various complexity functions, *Theoretical Computer Science* 420 (2012), pp.36-47
- [60] (with Yu-Mei XUE) Maximal pattern complexity, dual system and pattern recognition, *Theoretical Computer Science* 457 (2012), pp.166-173
- [61] Infinitesimal geometry and super-stationary factors of dynamical systems, *Topology and its Applications* 160 (2013), pp.844-861
- [62] (with Yu-Mei XUE) Multifractal analysis for a class of homogeneous Moran constructions, *Chaos, Solitons and Fractals* 53 (2013), pp.52-59
- [63] (with Steven WIDMER and Luca Q. ZAMBONI) Abelian maximal pattern complexity of words, *Ergodic Theory and Dynamical Systems* 35

- (2015), pp.142-151 (doi:10.1017/etds.2013.51)
- [64] (with Yu-Mei XUE) An easy criterion for randomness, *Sankhya A* 77-1 (2015), pp.126-152 (doi:10.1007/s13171-014-0054-3)
- [65] (with Yu-Mei XUE) Local time of self-affine sets of Brownian motion type and the jigsaw puzzle problem, *Journal of Mathematical Analysis and Applications* 419 (2014), pp.79-93
- [66] (with Emilie Charlier, Svetlana Puzynina and Luca Q. Zamboni) Infinite Self-Shuffling Words, *Journal of Combinatorial Theory, Series A* 128 (2014) pp.1-40 (doi:10.1016/j.jcta.2014.07.008)
- [67] (with Li PENG) Spectral measure of the Thue-Morse sequence and the dynamical system and random walk related to it, *Ergodic Theory and Dynamical Systems* 36 (2016), pp.1247-1259 (doi:10.1017/etds.2014.121)
- [68] (with Li PENG) Hausdorff dimension of the level sets of self-affine functions, *Journal of Mathematical Analysis and Applications* 423 (2015), pp.1400-1409
- [69] (with Jun Luo and Bo TAN) A Glueing Lemma for Iterated Function Systems, *Fractals* 23-2 (to appear), (doi:10.1142/S0218348X1550019X)
- [70] (with Dong Han Kim) A characterization of eventually periodicity, *Theoretical Computer Science* 581 (2015), pp.1-8 (doi:10.1016/j.tcs.2015.02.039)
- [71] Entropy estimate by a randomness criterion, *Ergodic Theory and Dynamical Systems* 37-3 (2017), 802-823 (doi:10.1017/etds.2015.79)
- [72] (with Yu-Mei XUE) Local time of self-affine sets of Brownian motion type - revisited, *Journal of Mathematical Analysis and Applications* 437-1 (2016), 638-644
- [73] (with Yu-Mei XUE) Hölder equivalence of homogeneous Moran sets, *Publicationes Mathematicae Debrecen* 89/1-2 (2016), pp.233-242 (doi: 10.5486/PMD.2016.7538)
- [74] (with Dong Han Kim and Yu-Mei Xue) Randomness criterion Σ and its applications, *Sankhya* 80-A, Part 2 (2018), 356-384
- [75] (with Yu Zheng and Li Peng) Characterization of noncorrelated pattern sequences and correlation dimensions, *Discrete and Continuous Dynamical Systems* 38-10 (2018) pp.5085-5103
- [76] (with Xiaowen Wang) Selection rules preserving normality, *Israel J. Math.* 232 (2019) pp.427442
- [77] (with Yu Zheng and Li Peng) Spectral properties of pattern sequences of general degrees, *Nonlinearity* 34 (2021) pp.34113428
- [78] (with Shigeki Akiyama) Width deviation of convex polygons, *Discrete & Computational Geometry* (to appear)

[79] Dynamical system at infinity, super-stationarity, uniform complexity and pattern recognition (survey of the talk at RIMS (Kyoto University), Oct.,2023)