

# Publications

(\*\*\* : author's final draft)

## In submission

- 1.[Yamamoto21] Analysis and application of multiplicative stochastic process with a sample-dependent lower bound, Ken Yamamoto, Yoshihiro Yamazaki.
- 2.[Ohmori21] Dynamical properties of max-plus equations obtained from tropically discretized Sel'kov model, Shousuke Ohmori, Yoshihiro Yamazaki,([arXiv:2107.02435](https://arxiv.org/abs/2107.02435)).

## Refereed Papers

- 1.[Taga21] Koopman spectral analysis of elementary cellular automata, Keisuke Taga, Yuzuru Kato, Yoshinobu Kawahara, Yoshihiro Yamazaki, Hiroya Nakao, *Chaos* 31 (2021) 103121 (15 pages),([arXiv:2106.01118](https://arxiv.org/abs/2106.01118)).
- 2.[Y21] Periodicity of limit cycles in a max-plus dynamical system, Yoshihiro Yamazaki, Shousuke Ohmori, *J. Phys. Soc. Jpn.* 90 (2021) 103001 (4pages), ([arXiv:2107.09300](https://arxiv.org/abs/2107.09300)).
- 3.[Narizuka21] Space evaluation in football games via field weighting based on tracking data, Takuma Narizuka, Yoshihiro Yamazaki, Kenta Takizawa, *Sci. Rep.* 11 (2021) 5509 (8pages), ([arXiv:2001.11629](https://arxiv.org/abs/2001.11629)).
- 4.[Ohmori20] Ultradiscrete Bifurcations for One Dimensional Dynamical Systems, Shousuke Ohmori, Yoshihiro Yamazaki, *Journal of Mathematical Physics*, 61 (2020) 122702 (12pages), ([arXiv:2004.13224](https://arxiv.org/abs/2004.13224)).
- 5.[Ohmori19b] Comments on statistical properties for cellular automaton models with probabilistic global and asymmetric local rules, Shousuke Ohmori, Yoshihiro Yamazaki, *J. Phys. Soc. Jpn.* 88 (2019) 105001 (2pages).
- 6.[Narizuka19b] Clustering algorithm for formations in football games, Takuma Narizuka, Yoshihiro Yamazaki, *Scientific Reports* 9 (2019) 13172 (8pages), ([arXiv:1805.07525](https://arxiv.org/abs/1805.07525)).
- 7.[Narizuka19a] Lifetime distributions for adjacency relationships in a Vicsek Model, Takuma Narizuka, Yoshihiro Yamazaki, *Phys. Rev. E.* 100 (2019) , 032603 ([arXiv:1812.06395](https://arxiv.org/abs/1812.06395)).
- 8.[Kubo19] Free-energy model of phase inversion dynamics in binary phase separation, Yoshihide Kubo, Shinpei Tanaka, Yoshihiro Yamazaki, *Phys. Rev. E.* 100 (2019) 022137.
- 9.[Ohmori19a] Universal topological representation of geometric patterns, Shousuke Ohmori, Yoshihiro Yamazaki, Tomoyuki Yamamoto, Akihiko Kitada, *Physica Scripta* 94 (2019) 105213 (7 pages).
- 10.[Yamada19] Avalanche distribution of the fiber bundle model with random displacement, Yuhei Yamada, Yoshihiro Yamazaki, *J. Phys. Soc. Jpn.* 88 (2019) 023002 (4pages).
- 11.[Yamada18b] Condition of weak discontinuity for percolation models with edge selection rule depending on cluster sizes, Yuhei Yamada, Yoshihiro Yamazaki, *J. Phys. Soc. Jpn.* 87 (2018) 085002 (2 pages).
- 12.[Yamada18a] Transient properties of probability distribution for a Markov process with size-dependent additive noise, Yuhei Yamada, Yoshihiro Yamazaki, *J. Phys. Soc. Jpn.* 87 (2018) 043001 (4 pages).
- 13.[Narizuka18] Characterization of the formation structure in team sports, Takuma Narizuka, Yoshihiro Yamazaki, translated from *Proceedings of the Institute of Statistical Mathematics*, Vol. 65, No.2, 299-307, 2017 (in Japanese) ([arXiv:1802.06766](https://arxiv.org/abs/1802.06766)).
- 14.[Y17b] Dynamical transitions between stick-slip and steady motions of bistable units with global and asymmetric local interactions, Yoshihiro Yamazaki, *J. Phys. Soc. Jpn.* 86 (2017) 043001 (4 pages).
- 15.[Narizuka16] Statistical properties for direction alignment and chasing of players in football games, Takuma Narizuka, Yoshihiro Yamazaki, *Europhys. Lett.* 116 (2016) 68001 (7 pages) ([arXiv:1611.03880](https://arxiv.org/abs/1611.03880)).
- 16.[Yamada16] A cluster-size averaging model for strongly discontinuous percolation, Yuhei Yamada, Yoshihiro Yamazaki, *J. Phys. Soc. Jpn.* 85 (2016) 055001 (2 pages).
- 17.[Ohmori16] Cellular automata for spatiotemporal pattern formation from reaction-diffusion partial differential equations, Shousuke Ohmori, Yoshihiro Yamazaki, *J. Phys. Soc. Jpn.* 85 (2016) 014003 (5 pages).
- 18.[Narizuka15] Degree distribution of position-dependent ball-passing networks in football games, Takuma Narizuka, Ken Yamamoto, Yoshihiro Yamazaki, *J. Phys. Soc. Jpn.* 84 (2015) 084003 (8

- pages) ([arXiv:1504.00208](https://arxiv.org/abs/1504.00208)).
- 19.[[Ohmori14](#)] Derivation of a stochastic cellular automaton model for the dynamics of bistable units with global and asymmetric local interactions, Shousuke Ohmori, Yoshihiro Yamazaki, Prog. Theor. Exp. Phys. (2014) 083A01.
  - 20.[[Narizuka14](#)] Statistical properties of position-dependent ball-passing networks in football games, Takuma Narizuka, Ken Yamamoto, Yoshihiro Yamazaki, Physica A 412 (2014) 157-168 ([arXiv:1311.0641](https://arxiv.org/abs/1311.0641)).
  - 21.[[Yamamoto14](#)] Structure and modeling of the network of two-Chinese-character compound words in the Japanese language, Ken Yamamoto, Yoshihiro Yamazaki, Physica A 412 (2014) 84-91 ([arXiv:1405.2167](https://arxiv.org/abs/1405.2167))
  - 22.[[Y14](#)] [<go to Supplemental movies>](#)Dynamical properties in uniform and periodic growth modes of ascorbic acid crystal domain from thin solution film, Yoshihiro Yamazaki, Mitsunobu Kikuchi, Akihiko Toda, Jun-ichi Wakita, Mitsugu Matsushita, J. Phys. Soc. Jpn. 83 (2014) 064002 (9 pages)
  - 23.[[Yamamoto13b](#)]Multifractal aspects of an efficient change-making process, Ken Yamamoto, Yoshihiro Yamazaki, Fractals 21 (2013) 1350014 (2013) (8 pages)
  - 24.[[Iwata13](#)] Apparent transition in the human height distribution caused by age-dependent variation during puberty period, Takaki Iwata, Yoshihiro Yamazaki, Hiroto Kuninaka, J. Phys. Soc. Jpn. 82 (2013) 084803 (4 pages) ([ISM Research Memorandum 1166](#))
  - 25.[[Y13](#)] [<\\*\\*\\*>](#) Preferential migration and random mobility in population size distribution of municipalities, Yoshihiro Yamazaki, Kenji Takamura, J. Phys. Soc. Jpn. 82 (2013) 065003 (2pages)
  - 26.[[Yamamoto13a](#)] Group-separation effect in cell-size distribution of origami crease patterns, Ken Yamamoto, Yoshihiro Yamazaki, J. Phys. Soc. Jpn. 82 (2013) 044803 (7 pages)
  - 27.[[Yamamoto12b](#)] Fractal behind coin-reducing payment, Ken Yamamoto, Yoshihiro Yamazaki, Chaos, Solitons & Fractals 45 (2012) 1058-1066 ([arXiv:1103.1208](https://arxiv.org/abs/1103.1208))
  - 28.[[Y12](#)] Spatiotemporal patterns by the dynamics of bistable units with global and asymmetric local interactions, Yoshihiro Yamazaki, Ken Yamamoto, Daisuke Kadono, Akihiko Toda, J. Phys. Soc. Jpn. 81 (2012) 043002 (3 pages)
  - 29.[[Yamamoto12a](#)] Power-law behavior in a cascade process with stopping event: a solvable model, Ken Yamamoto, Yoshihiro Yamazaki, Phys. Rev. E 85 (2012) 011145 (5pages)
  - 30.[[Kobayashi11](#)] Fractal Structure of Isothermal Lines and Loops on the Cosmic Microwave Background, Naoki Kobayashi, Yoshihiro Yamazaki, Hiroto Kuninaka, Makoto Katori, Mitsugu Matsushita, Satoki Matsushita, Lung-Yih Chiang, J. Phys. Soc. Jpn. 80 (2011) 074003 (5 pages)
  - 31.[[Y11](#)] Collective behavior of bistable units with global and asymmetric local interactions, Yoshihiro Yamazaki, Prog. Theor. Phys. 125 (2011) 641-652
  - 32.[[Yamamoto11](#)] Central limit theorem of the bifurcation ratio of the Horton-Strahler analysis: application to DLA clusters, Ken Yamamoto, Yoshihiro Yamazaki, J. Phys. Soc. Jpn. 80 (2011) 034002 (3 pages)
  - 33.[[Yamamoto10](#)] Topological self-similarity on the random binary-tree model, Ken Yamamoto, Yoshihiro Yamazaki, J. Stat. Phys. 139 (2010) 62-71 ([arXiv:0910.4795](https://arxiv.org/abs/0910.4795))
  - 34.[[Yamamoto09b](#)] Central Limit Theorem for Bifurcation Ratio of Random Binary Tree, Ken Yamamoto, Yoshihiro Yamazaki, J. Phys. A: Math. and Theor. 42 (2009) 415002 (11 pages) ([arXiv:0904.2043](https://arxiv.org/abs/0904.2043))
  - 35.[[Y09](#)] Humidity-temperature dependence of domain growth of ascorbic acid crystal, Yoshihiro Yamazaki, Hiroki Yoshino, Machiko Izui, Yukiko Sato, Mitsugu Matsushita, J. Phys. Soc. Jpn. 78 (2009) 074001 (6 pages)
  - 36.[[Yamamoto09a](#)] Network of two-Chinese-character compound words in Japanese language, Ken Yamamoto, Yoshihiro Yamazaki, Physica A 388 (2009) 2555-2560 ([arXiv:0902.4060](https://arxiv.org/abs/0902.4060))
  - 37.[[Yamamoto08](#)] Formulation and asymptotic properties of the bifurcation ratio in Horton's law for the equiprobable binary tree model, Ken Yamamoto, Yoshihiro Yamazaki, Phys. Rev. E 78 (2008) 021114 (7 pages)
  - 38.[[Y07a](#)] Reconstruction and Extension of the Family-Vicsek Scaling Hypothesis for Growing Rough Interfaces, Yoshihiro Yamazaki, Kazuaki Saito, Naoki Kobayashi, Tatsuya Ozawa, Mitsugu Matsushita, J. Phys. Soc. Jpn. 76 (2007) 104002 (9pages)
  - 39.[[Komura07](#)] Modelling for collective motion of granular particles driven by motion of interfaces, Shin-ya Komura, Yoshihiro Yamazaki, J. Phys. Soc. Jpn. 76 (2007) 083801 (4pages)
  - 40.[[Y06b](#)] Percolation in Aggregation of Granular Particles Formed by Sweeping Front Dynamics, Yoshihiro Yamazaki, Shin-ya Komura, Ken Sukanuma, J. Phys. Soc. Jpn. 75 (2006) 43001 (4pages)
  - 41.[[Y06a](#)] Pattern Formation and Spatiotemporal Behavior of Adhesive in Peeling, Yoshihiro Yamazaki, Akihiko Toda, Physica D 214 (2006) 120-131
  - 42.[[Kobayashi06](#)] Multi-Affinity for Growing Rough Interfaces of Bacterial Colonies, Naoki Kobayashi, Tatsuya Ozawa, Kazuaki Saito, Yoshihiro Yamazaki, Tohey Matsuyama, Mitsugu

- Matsushita, Prog. Theor. Phys. Suppl. 161 (2006) 232-235
43. [Mizuguchi05] Directional crack propagation of granular water systems, Tsuyoshi Mizuguchi, Akihiro Nishimoto, So Kitsunezaki, Yoshihiro Yamazaki, Ichio Aoki, Physical Review E 71 (2005) 056122 (5pages)
  44. [Y05] Periodic growth of bacterial colonies, Yoshihiro Yamazaki, Takemasa Ikeda, Hiroto Itoh, Sayuri Kurosu, Michio Nakatsuchi, Tohey Matsuyama, Mitsugu Matsushita, Physica D 205 (2005) 136-153
  45. [Hiramatsu05] Patterns of Expansion produced by a Structured Cell Population of *Serratia marcescens* in Response to Different Media, Fumiko Hiramatsu, Jun-ichi Wakita, Naoki Kobayashi, Yoshihiro Yamazaki, Mitsugu Matsushita, Tohey Matsuyama, Microbes and Environments 20 (2005) 120-125
  46. [Kobayashi05] Extended Dynamic Scaling for Growing Interfaces, Naoki Kobayashi, Kazuaki Saito, Tatsuya Ozawa, Yoshihiro Yamazaki, Katsuya Honda, Mitsugu Matsushita, J. Phys. Soc. Jpn. 74 (2005) 2712-2715
  47. [Shimada04] Dependence of Local Cell Density on Concentric Ring Colony Formation by Bacterial Species *Bacillus subtilis*, Hiroto Itoh, Takemasa Ikeda, Jun-ichi Wakita, Hiroto Itoh, Sayuri Kurosu, Fumiko Hiramatsu, Michio Nakatsuchi, Yoshihiro Yamazaki, Tohey Matsuyama, Mitsugu Matsushita, J. Phys. Soc. Jpn. 73 (2004) 1082-1089
  48. [Kobayashi04] Dynamic Scaling of the Growing Rough Surfaces, Naoki Kobayashi, Osamu Moriyama, So Kitsunezaki, Yoshihiro Yamazaki, Mitsugu Matsushita, J. Phys. Soc. Jpn. 73 (2004) 2112-2116
  49. [Y04] Stability of Tunnel Structure and Relationship between Peel Load and Spatiotemporal Pattern by Deformed Adhesive during Peeling, Yoshihiro Yamazaki, Akihiko Toda, J. Phys. Soc. Jpn. 73 (2004) 2342-2346
  50. [Matsushita04] Colony Formation in Bacteria: Experiments and Modeling, Mitsugu Matsushita, Fumiko Hiramatsu, Naoki Kobayashi, Tatsuya Ozawa, Yoshihiro Yamazaki, Tohey Matsuyama, Biofilms 1 (2004) 305-317
  51. [Tanaka03] Bouncing gel balls: Impact of soft gels onto rigid surface, Y. Tanaka, Y. Yamazaki, K. Okumura, Europhys. Lett. 63 (2003) 146-152
  52. [Moriyama03] Transition to Density Waves of Granular Particles Flowing through a Vertical Pipe, Osamu Moriyama, Naoya Kuroiwa, Sayako Tateda, Taichi Arai, Atsushi Awazu, Yoshihiro Yamazaki, Mitsugu Matsushita, Prog. Theor. Phys. Suppl. 150 (2003) 136-146
  53. [Kobayashi03] Modelling and Numerical Analysis of the Colony Formation of Bacteria, Naoki Kobayashi, Takuya Sato, Yoshihiro Yamazaki, Mitsugu Matsushita, J. Phys. Soc. Jpn. 72 (2003) 970-971
  54. [Okuzono03] Theory of aging phenomena in shape-memory alloys, Tohru Okuzono, Yoshihiro Yamazaki, Takao Ohta, Phys. Rev. B 67 (2003) 054106 (12pages)
  55. [Ito03] Morphological Diversity in Crystal Growth of l-Ascorbic Acid Dissolved in Methanol, Miho Ito, Machiko Izui, Yoshihiro Yamazaki, Mitsugu Matsushita, J. Phys. Soc. Jpn. 72 (2003) 1384-1389
  56. [Y02b] Dynamics of Granular Flow through a Vertical Pipe under the Control of Inflow Rate, Yoshihiro Yamazaki, Sayako Tateda, Atsushi Awazu, Taichi Arai, Osamu Moriyama, Mitsugu Matsushita, J. Phys. Soc. Jpn. 71 (2002) 2859-2862
  57. [Y02a] Dynamical-Morphological Property of Adhesive Tape in Peeling, Yoshihiro Yamazaki, Akihiko Toda, J. Phys. Soc. Jpn. 71 (2002) 1618-1621
  58. [Watanabe02] Dynamical Properties of Transient Spatio-Temporal Patterns in Bacterial Colony of *Proteus mirabilis*, Kazuhiko Watanabe, Jun-ichi Wakita, Hiroto Itoh, Hiroto Shimada, Sayuri Kurosu, Takemasa Ikeda, Yoshihiro Yamazaki, Tohey Matsuyama, Mitsugu Matsushita, J. Phys. Soc. Jpn. 71 (2002) 650-656
  59. [Motoyama01] Target Patterns in Phase Separation Induced by Cross-Linking, Miho Motoyama, Yoshihiro Yamazaki, Takao Ohta, J. Phys. Soc. Jpn. 70 (2001) 729-732
  60. [Ichitsubo00] Kinetics of cubic to tetragonal transformation under external field by the time-dependent Ginzburg-Landau approach, Tetsu Ichitsubo, Katsushi Tanaka, Masahiro Koiwa, Yoshihiro Yamazaki, Phys. Rev. B 62 (2000) 5435-5441 (7pages)
  61. [Y00] Front Aggregation and Labyrinthine Pattern in the Drying Process of Two-Dimensional Wet Granular Systems, Yoshihiro Yamazaki, Tsuyoshi Mizuguchi, J. Phys. Soc. Jpn. 69 (2000) 2387-2390
  62. [Y98b] Pattern Formations in Cubic-Tetragonal Structural Transitions, Yoshihiro Yamazaki, J. Phys. Soc. Jpn. 67 (1998) 2970-2979
  63. [Y98a] Interface Dynamics for Cubic-Tetragonal Structural Transitions, Yoshihiro Yamazaki, J. Phys. Soc. Jpn. 67 (1998) 1587-1593
  64. [Y97] Numerical Study of Elastic Effects by Cubic-Tetragonal Symmetry Breaking on the

## Proceedings

(\* : refereed)

- 1.\*[Y17c]Ultradiscretization of reaction-diffusion type partial differential equations exhibiting pulse propagation, Yoshihiro Yamazaki, Shosuke Ohmori, *Nanosystems: Physics, Chemistry, Mathematics* 8 (2017) 38-41.
  - 2.\*[Y17a]Existence of thickness threshold for crystal growth rate of ascorbic acid from its thin solution film, Yoshihiro Yamazaki, Hiroki Yoshino, Mitsunobu Kikuchi, Sakiko Kashiwase, *J. Cryst. Growth* 468 (2017) 43-45. [as a proceeding of the 18th International Conference on Crystal Growth and Epitaxy (ICCGE18)]
  - 3.\*[Y15]Short memo on worm-like chain motion, Yoshihiro Yamazaki, Special issue on new challenges in complex systems science (*Advances in science, technology and environmentology* vol.B11(2015 Mar.)) 201 (2pages)
  - 4.[Y07c]Collective Motion of Granular Particles Induced by Moving Interfaces, Yoshihiro Yamazaki, Shin-ya Komura, *Bussei Kenkyu (Kyoto)* 89 (2007) 15-16
  - 5.\*[Y07b]Spatiotemporal Patterns Formed by Deformed Adhesive in Peeling, Yoshihiro Yamazaki, Akihiko Toda, *J. Phys.: Conf. Ser.* 89 (2007) 012013 (5pages)
  - 6.[Y01b] Front Aggregation and Labyrinthine Pattern in the Drying Process of Water-Granule Systems, Yoshihiro Yamazaki, *数理解析研究所講究録* 1191 (2001) 51-52
  - 7.\*[Y01a] Labyrinthine Pattern by Front Aggregation in Drying Water-Granule Systems, Yoshihiro Yamazaki, Tsuyoshi Mizuguchi, *Powders and Grains 2001* (2001) 59-62
  - 8.\*[Mizuguchi01] Directional Crack Propagation in Drying Process of Wet Granules, Tsuyoshi Mizuguchi, Akihiro Nishimoto, So Kitsunezaki, Yoshihiro Yamazaki, Ichio Aoki, *Powders and Grains 2001* (2001) 55-58
  - 9.\*[Moriyama01] Dynamics and Structure of Granular Flow through a Vertical Pipe, Osamu Moriyama, Naoya Kuroiwa, Takeshi Isoda, Taichi Arai, Sayako Tateda, Yoshihiro Yamazaki, Mitsugu Matsushita, *Traffic and Granular Flow '01* (2001) 437-448
  - 10.\*[Y99] Time Dependent Ginzburg-Landau Approach to Pattern Formation in Cubic-Tetragonal Structural Transformations, Yoshihiro Yamazaki, *Proc. Int. Conf. On Solid-Solid Phase Transformations '99* (1999) 713-716
-