

## 5. 拠点メンバーの業績一覧

### (1) 論文 (査読あり)

- Amy Poh Ai Ling, Sugihara Kokichi, Mukaidono Masao, “Enhancing Smart Grid System Processes via Philosophy of Security-Case Study based on Information Security Systems”, Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications. 2012, vol. 3, No. 3, pp. 94-112
- Amy Poh Ai Ling, Chen Yan Yu, Sugihara Kokichi, and Mukaidono Masao, “The Essential Identified Consumer Requirements Derived through Descriptive Analysis on the Information Security in a Smart Grid System”, International Journal of Modern Engineering Research, 2012-9, vol. 2, issue. 5, pp. 3347-3366
- Amy Poh Ai Ling, Sugihara Kokichi, Masao Mukaidono, “The Japanese Smart Grid-Initiatives, Investments, and Collaborations”, International Journal of Advanced Science and Applications, 2012, vol. 3, No. 7, pp. 44-54
- Amy Poh Ai Ling, Masao Mukaidono, Sugihara Kokichi, “A survey of Japanese Current Status on Adopting Smart Grid Technology”, International Journal of Computers, Information Technology and Engineering (IJCITAE), 2012-6, vol.6, No.1, pp.55-64
- Amy Poh Ai Ling, Mohamad Naslr Saludin, Masao Mukaidono, “Deriving consensus rankings via multi-criteria decision making methodology”, Business strategy series, 2012, vol. 13, No.1
- Amy Poh Ai Ling, Sugihara Kokichi, Masao Mukaidono, “Utilities Need Much Better Functional Safeguards”, Proceedings of Third IEEE International Conference on Smart Grid Communications, IEEE, 2012-11, pp. 680-685
- T. Kariya, K. Wang, Z. Wang, E. Doi, Y. Yamamura, “Empirically Effective Bond Pricing Model and Analysis on Term Structures of Implied Interest Rates in Financial Crisis”, Asia-Pacific Financial Markets, Springer 19, 2012, pp. 321-350
- Shoichi Urano, Hiroyuki Mori, “A method for determining pseudo-measurement state values for topology observability of state estimation in power systems”, Electrical Engineering in Japan, Wiley InterScience, 2012-4, vol. 179, issue 2, pp. 27-34
- H. Mori, A. Takahashi, “A Data Mining Method for Selecting Input Variables for Forecasting Model of Global Solar Radiation”, Proc. of IEEE PES T&D 2012, Orlando, FL, USA, 2012-5
- H. Mori, M. Takahashi, “A Prediction Method for Photovoltaic Power Generation with Advanced Radial Basis Function Network”, Proc. of IEEE PES ISGT ASIA 2012, Tianjin, China, 2012-5
- M. Takahashi, H. Mori, “A Hybrid Intelligent System Approach to Forecasting of PV Generation Output”, Proc. of ICEE 2012 (CD-ROM), Program # RE2-3. Kanazawa, Japan, 2012-7
- H. Yokoyama, H. Mori, “An Estimation Method for Distribution Network Losses with Intelligent System”, Proc. of ICEE 2012 (CD-ROM), Program # SG1-3. Kanazawa, Japan, 2012-7
- H. Mori, M. Takahashi, “Development of GRBFN with Global Structure for PV Generation Output Forecasting”, Proc. of IEEE PES General Meeting 2012, 2012-7, San Diego, CA, USA
- H. Mori, T. Itagaki, “An Electricity Price Zone Forecasting Method with Fuzzy Inference Net”, Proc. of IFAC Symposium on Power Plant and Power System Control (PPSC2012), 2012-9, Toulouse, France
- 高橋政人, 森啓之, “EPSO を用いた GRBFN による太陽光発電出力予測”, 電気学会論文誌 B, 2013-1, vol. 133, No. 1, pp. 72-78

- H. Fujita, H. Mori, “Development of Hybrid-Coded EPSO for Optimal Allocation of FACTS Devices in Uncertain Smart Grids”, *Procedia Computer Science (Elsevier)*, 2012-11, vol. 12, pp. 429-434
- Y. Ogita, H. Mori, “Parallel Dual Tabu Search for Capacitor Placement in Smart Grids”, *Procedia Computer Science (Elsevier)*, 2012-11, vol. 12, pp. 307-313
- H. Mori, M. Takahashi, “Application of Preconditioned Generalized Radial Basis Function Network to Prediction of Photovoltaic Power Generation”, *Proc. Of IEEE PES ISGT Europe 2012*, 2012-10, Berlin, Germany
- R. Kobayashi, T. Nakagaki, “A. Ishiguro. Novel Control Principle Based on the Discrepancy Function”, *RIMS Kôkyûroku Bessatsu*, 2012, B31 : pp.61-77
- T. Kano, T. Sato, R. Kobayashi, “A. Ishiguro. Local reflexive mechanisms essential for snakes’ scaffold-based locomotion”, *Bioinspiration & Biomimetics*, 2012, 7: 046008
- Shinichiro Sumi, Juri Oinuma, Kaoru Arakawa, Hiroshi Harashima, “Interactive Evolutionary Image Processing for Face Beautification Using Smaller Population Size”, *Proc. IEEE ISPACS 2012*. 2012-11, pp. 48-53
- Yuki Umeda, Kaoru Arakawa, “Removal of Film Scratches Using Exemplar-Based Inpainting With Directional Median Filter”, *Proc. IEEE ISCIT 2012*. 2012-10, pp. 6-11
- Yohei Katsuyama, Kaoru Arakawa, “Complex Rule-Based Filter for Impulsive Noise Reduction in Color Images Optimized by Interactive Evolutionary Computing”, *Proc. ITC-CSCC 2012*, D-T2-04
- Masashi Fujii, Hiraku Nishimori, Akinori Awazu, “Influences of Excluded Volume of Molecules on Signaling Processes on Biomembrane”, *PLOS ONE*, 2013 (accepted)
- H. Niiya, A. Awazu, H. Nishimori, “Stability of transverse dunes against perturbations, a theoretical study using dune skeleton model”, *Aeolian Research*, 2012, DOI:10.1016/j.aeolia.2012.08.008 (accepted)
- Hirofumi Niiya, Akinori Awazu, Hiraku Nishimori, “Bifurcation analysis of the transition of dune shape under unidirectional wind”, *Phys. Rev. Lett.* 2012, 108, 158001
- Masashi Fujii, Akinori Awazu, Hiraku Nishimori, “Segregation-pattern reorientation of a granular mixture on a horizontally oscillating tray”, *Phys.Rev.E*, 2012, Vol.85, 041304
- Eric Heisler, Nobuhiko J. Suematsu, Akinori Awazu, Hiraku Nishimori, “Swarming of self-propelled camphor boats”, *Phys. Rev.* 2012, E 85, 055201(R)
- Eric Heisler, Nobuhiko J. Suematsu, Akinori Awazu, Hiraku Nishimori, “Collective motion and phase transitions of symmetric camphor boats”, *J. Phys. Soc. Jpn*, 2012
- 萩原悠佑, 秋野順治, 西森拓, “アリの集団採餌における方位情報の選択と切り替え”, *計測と制御*, 2013, 53, pp. 201-207
- Hayafumi Watanabe, Hideki Takayasu, Misako Takayasu, “Biased diffusion on the Japanese inter-firm trading network: estimation of sales from the network structure”, *New Journal of Physics* 14. 2012, 043034
- Takaaki Ohnishi, Hideki Takayasu, Takatoshi Ito, Yuko Hashimoto, Tsutomu Watanabe, Misako Takayasu, “On the nonstationarity of the exchange rate process”, *International Review of Financial Analysis* 23, 2012, pp. 30–34
- Yukie Sano, Hideki Takayasu, Misako Takayasu, “Zipf’s Law and Heaps’ Law Can Predict the Size of Potential Words”, *Progress of Theoretical Physics Supplement*, 2012, No. 194, pp. 202-209.

- Wataru Miura, Hideki Takayasu, Misako Takayasu, “Effect of coagulation of nodes in an evolving complex network”, *Phys. Rev. Lett.*, 2012, pp. 108, 168701
- Koutarou Tamura, Wataru Miura, Misako Takayasu, Hideki Takayasu, Satoshi Kitajima, Hayato Goto, “Estimation of flux between interacting nodes on huge inter-firm networks”, *International Journal of Modern Physics: Conference Series*. 2012, 16, pp. 93-104
- Yoshihiro Yura, Takaaki Ohnishi, Kenta Yamada, Hideki Takayasu, Misako Takayasu, “Replication of non-trivial directional motion in multi-scales observed by the runs test”, *International Journal of Modern Physics: Conference Series*, 2012, 16, pp. 136-148
- W. Miura, H. Takayasu, M. Takayasu, “The origin of asymmetric behavior of money flow in the business firm network”, *The European Physics Journal Special Topics*, 2012, 212, pp. 65-75
- Yuko Hashimoto, Takatoshi Ito, Takaaki Ohnishi, Misako Takayasu, Hideki Takayasu, Tsutomu Watanabe, “Random walk or a run, Market microstructure analysis of foreign exchange rate movements based on conditional probability”, *Quantitative Finance*, 2012, 12:6, pp. 893-905
- 松永健太, 山田健太, 高安秀樹, 高安美佐子, “スプレッドディーラーモデルの構築とその応用”, *人工知能学会論文誌* 27, 2012, pp. 365-375
- Hayafumi Watanabe, Hideki Takayasu, Misako Takayasu, “Relations between allometric scaling and fluctuations in complex systems: The case of Japanese firms”, *Physica A* 392, 2013, pp. 741-756
- Yukie Sano, Kenta Yamada, Hayafumi Watanabe, Hideki Takayasu, Misako Takayasu, “Empirical analysis of collective human behavior for extraordinary events in the blogosphere”, *Physical Review E* 87, 2013, 012805
- Yoshihiro Yura, Hideki Takayasu, Kazuyuki Nakamura, Misako Takayasu, “Rapid detection of the switching point in a financial market structure using the particle filter”, *Journal of Statistical Computation and Simulation* 2013, <http://dx.doi.org/10.1080/00949655.2013.781603>
- Satomi Matsuoka, Tatsuo Shibata, Masahiro Ueda, “Asymmetric PTEN Distribution Regulated by Spatial Heterogeneity in Membrane-Binding State Transitions”, *PLoS Computational Biology*, 2013, 9(1): e1002862
- Akinori Baba, Tetsuya Hiraiwa, Tatsuo Shibata, “Directional sensing of deformed cells under faint gradients”, *Physical Review*, 2012, E, 86, 060901(R)
- Toshinori Namba, Masatoshi Nishikawa, Tatsuo Shibata, “The Relation of Signal Transduction to the Sensitivity and Dynamic Range of Bacterial Chemotaxis”, *Biophysical Journal*, 2012, 103: 1390-1399
- Masahiro Takahashi, Tatsuo Shibata, Toshio Yanagida, Yasushi Sako, “A protein switch with tunable steepness reconstructed in *Escherichia coli* cells with eukaryotic signaling proteins”, *Biochem. Biophys. Res. Commun.* 2012, 421: 4, p. 731-735, doi:10.1016/j.bbrc.2012.04.071
- Hiroshi Ochiai, Naoaki Sakamoto, Kazumasa Fujita, Masatoshi Nishikawa, Ken-Ichi Suzuki, Shinya Matsuura, Tatsuo Miyamoto, Tetsushi Sakuma, Tatsuo Shibata, Takashi Yamamoto, “Zinc-finger nuclease-mediated targeted insertion of reporter genes for quantitative imaging of gene expression in sea urchin embryos”, 2012, *Proc. Natl. Acad. Sci. U.S.A.* 109: 27. 10915-10920 doi:10.1073/pnas.1202768109

- Tatsuo Shibata, Masatoshi Nishikawa, Satomi Matsuoka, Masahiro Ueda, “Modeling the self-organized phosphatidylinositol lipids signaling system in chemotactic cells based on quantitative image analysis”, *Journal of Cell Science*, 2012, 125: 5138-5150
- J. Y. Wakano, “Spatiotemporal dynamics of cooperation and spite behavior by conformist transmission”, *Communications on Pure and Applied Analysis* 11:375-386, 2012, DOI 10.3934/cpaa.2012.11.375
- S. Mirrahimi, B. Perthame, J. Y. Wakano, “Evolution of species trait through resource competition”, *Journal of Mathematical Biology* 64:1189-1223, 2012, DOI 10.1007/s00285-011-0447-z
- Y. Kobayashi, J. Y. Wakano, “Evolution of social versus individual learning in an infinite island model”, *Evolution* 66:1624-1635, 2012, DOI 10.1111/j.1558-5646.2011.01541.x
- K. Aoki, J. Y. Wakano, L. Lehmann, “Evolutionarily stable learning schedules and cumulative culture in discrete generation models”, *Theoretical Population Biology* 81:300-309. 2012, DOI 10.1016/j.tpb.2012.01.006
- J. Y. Wakano, L. Lehmann, “Evolutionary and convergence stability for continuous phenotypes in finite populations derived from two-allele models”, *Journal of Theoretical Biology*, 310:206-215. 2012, DOI 10.1016/j.jtbi.2012.06.036
- W. Nakahashi, J. Y. Wakano, J. Henrich, “Adaptive social learning strategies in temporally and spatially varying environments”, *Human Nature* 23:386-418, 2012, DOI 10.1007/s12110-012-9151-y
- T. Sunada, “Lecture on topological crystallography”, *Japanese Journal of Mathematics* 7, 2012, pp. 1-39
- T. Sunada, T. Tate, “Asymptotic behavior of quantum walks on the line”, *Journal of Functional Analysis* 262, 2012, pp. 2608-2645
- K. Ikeda, M. Mimura, “Traveling wave solutions of a 3-component reaction-diffusion model in smoldering combustion”, *Communications on Pure and Applied Analysis*, 11. 2012, pp. 275-305
- M. Bertsch, D. Hilhorst, H. Izuhara, M. Mimura, “A nonlinear parabolic-hyperbolic system for contact inhibition of cell-growth”, *Diff. Eqs. Appl.* 4, 2012, pp. 137-157
- D. Hilhorst, S. Martin, M. Mimura, “Singular limit of a competition-diffusion system with large interspecific interaction”, *J. Math. Anal. Appl.* 390. 2012, pp. 488-513
- S. I. Ei, H. Izuhara, M. Mimura, “Infinite dimensional relaxation oscillation in aggregation-growth systems”, *Discrete and Continuous Dynamical Systems- Series B*, 17. 2012, pp. 1859-1887
- C. C. Chen, L. C. Hung, M. Mimura, D. Ueyama, “Exact traveling wave solutions of three species competition-diffusion systems”, *Discrete and Continuous Dynamical Systems- Series B* 17. 2012, pp. 2653-2669
- T. Funaki, H. Izuhara, M. Mimura, C. Urabe, “A link between microscopic and macroscopic models of self-organized aggregation”, *Networks and Heterogeneous Media*, 7. 2012, pp. 705-740
- Qian-Ping Gu, Hisao Tamaki, “Improved Bounds on the Planar Branchwidth with Respect to the Largest Grid Minor Size”, *Algorithmica* 64(3), 2012, pp. 416-453
- Soichiro Fujii, Hisao Tamaki, “Tracesheets - Spreadsheets of Program Executions as a Common Ground between Learners and Instructors”, *CSEDU 2012*, pp. 158-163
- Yasuaki Kobayashi, Hisao Tamaki, “A Fast and Simple Subexponential Fixed Parameter Algorithm for One-Sided Crossing Minimization”, *ESA 2012*, pp. 683-694

- Takehiro Ito, Yuichiro Miyamoto, Hirotaka Ono, Hisao Tamaki, Ryuhei Uehara, “Route-Enabling Graph Orientation Problems”, *Algorithmica* 65(2), 2013, pp. 317-338
- E. Ijioma, A. Muntean, T. Ogawa, “Pattern formation in reverse smouldering combustion: A homogenization approach”, *Combustion Theory and Modelling*, 2012, pp. 1-39
- T. Ogawa, T. Okuda, “Oscillatory dynamics in a reaction-diffusion system in the presence of 0:1:2 resonance”, *Networks and Heterogeneous Media*, 2012-12, vol. 7, issue 4, pp. 893-926
- Y. Y. Chen, J. S. Guo, H. Ninomiya, “Existence and uniqueness of rigidly rotating spiral waves by a wave front interaction model”, 2012-10, *Physica D*, vol. 241, issue 20, pp. 1758-1766
- J. S. Guo, H. Ninomiya, C.C. Wu, “Existence of a rotating wave pattern in a disk for a wave front interaction model”, *Communications on Pure and Applied Analysis* 12-2, 2013-3, pp. 1049-1063
- G. Vekstein, K. Kusano, “Comment on Supersonic regime of the Hall- magnetohydrodynamics resistive tearing instability”, [*Phys. Plasmas* 19, 072519 (2012)]. *Physics of Plasmas*. 2013, vol. 20, issue 1, pp. 014703-014703-2, DOI: 10.1063/1.4789449
- K. Kusano, Y. Bamba, T. Yamamoto, Y. Iida, S. Toriumi, A. Asai, “Magnetic field structures triggering solar flares and coronal mass ejections”, *The Astrophysical Journal*, 2012-11, volume 760, issue 1, article id 31
- N. P. Savani, D. Shiota, K. Kusano, N. Lugaz, A. Vourlidas, “A study of the Heliocentric dependence of Shock Standoff Distance and Geometry using 2.5D MHD Simulations of CME-driven shocks”, *The Astrophysical Journal*. 2012-11, vol. 759, issue 2, article id. 103
- N. P. Savani, J. A. Davies, D. Shiota, C. J. Davis, A. P. Rouillard, M. J. Owens, K. Kusano, V. Bothmer, “Observational Tracking of the 2D Structure of Coronal Mass Ejections between the Sun and 1 AU”, *Solar Physics*, 2012-8, vol. 279, issue 2, pp. 517-535
- T. T. Yamamoto, K. Kusano, “Preprocessing magnetic fields with chromospheric longitudinal Fields”, *The Astrophysical Journal*, 2012-06, vol. 752, issue 2, article id. 126
- A. P. A. Ling, K. Sugihara, M. Mukaidono, “The Japanese Smart Grid Initiatives, Investments, and Collaborations”, *International Journal of Advanced Computer Science and Applications*, 2012, vol. 3, No. 7, pp. 44-54
- K. Sugihara, “Robust geometric computation based on the principle of independence, *Nonlinear Theory and Applications*”, *IEICE*, 2011, vol. 2, pp. 32-42 (2012 年にページ番号等判明)
- 杉原厚吉, “投影の幾何学と立体錯視”, *心理学評論*, 2012, vol. 55, No. 3, pp. 296-306
- A. P. A. Ling, K. Sugihara, M. Mukaidono, “A survey of Japanese current status on adopting smart grid technology”, *International Journal of Computers, Information Technology and Engineering*, 2012, vol. 6, No. 1, pp. 55-64
- K. Sugihara, “Rescue-boat Voronoi diagrams in a time-varying environment”, *Journal of Information and Computational Science*, 2012, vol. 9, No. 10, pp. 2685-2695
- C. -C. Chen, L. -C. Hung, M. Mimura, D. Ueyama, “Exact traveling wave solutions of three species competition-diffusion systems”, *DCDS-B* 17(8). 2012, pp. 2653-2669
- H. Notsu, D. Ueyama, M. Yamaguchi, “A self-organized mesh generator using pattern formation in a reaction-diffusion system”, *Applied Mathematics Letters* 26(2), 2013, pp.201-206(preprint)
- Ikeda, Kota, “The existence and uniqueness of unstable eigenvalues for stripe patterns in the Gierer-Meinhardt system”, *Networks and Heterogeneous Media*, 2013, 8 (1), pp. 291–325
- Ikeda, Kota, “Stability analysis for a planar traveling wave solution in an excitable system”,

Kokyuroku Bessatsu, 2012, B35, pp. 125-140

- Eric Heisler, Nobuhiko J. Suematsu, Akinori Awazu, Hiraku Nishimori, “Swarming of self-propelled camphor boats”, Phys. Rev. E 85, 055201(R) (2012). (accepted 2012-4-26)
- Eric Heisler, Nobuhiko J. Suematsu, Akinori Awazu, Hiraku Nishimori, “Collective Motion and Phase Transitions of Symmetric Camphor Boats”, J. Phys. Soc. Jpn. 81, 074605 (2012). (accepted 2012-5-1)
- T. Shuku, A. Murakami, S. Nishimura, K. Fujisawa, K. Nakamura, “Parameter identification for Cam-clay model in partially loading tests using the particle filter”, Soils and Foundations, vol.52, No.2, p.279-298, 2012
- A. Murakami, T. Shuku, S. Nishimura, K. Fujisawa, K. Nakamura, “Data assimilation using the particle filter for identifying the elasto-plastic material properties of geomaterials”, International Journal for Numerical and Analytical Methods in Geomechanics, 2012, Doi: 10.1002/nag.2125
- Y. Yura, H. Takayasu, K. Nakamura, M. Takayasu, “Rapid detection of the switching point in a financial market structure using the particle filter”, Journal of Statistical Computation and Simulation, 2013, Doi: 10.1080/00949655.2013.781603
- Ryoko Okajima, Satoshi Chiba, “Adaptation from restricted geometries: The shell inclination of terrestrial gastropods”, Evolution. Blackwell Publishing. 2012, 67 (2), pp 429-437
- Yukio Hayashi, Takayuki Komaki, Yusuke Ide, Takuya Machida, Norio Konno, “Combinatorial and approximative analyses in a spatially random division process”, Physica A, 392(9), 2013, pp. 2212-2225
- Takuya Machida, “Limit theorems for the interference terms of discrete-time quantum walks on the line”, Quantum Information and Computation. 2013, 13(7&8), pp. 661-671
- Takuya Machida, “Realization of the probability laws in the quantum central limit theorems by a quantum walk”, Quantum Information and Computation, 2013, 13(5&6), pp. 430-438
- Takuya Machida, “Limit distribution with a combination of density functions for a 2-state quantum walk”, Journal of Computational and Theoretical Nanoscience (in press)
- Carlo Di Franco, Michael Mc Gettrick, Takuya Machida, Thomas Busch, “Measurement-induced generation of spatial entanglement in a two-dimensional quantum walk with single-qubit coin”, Journal of Computational and Theoretical Nanoscience (in press)
- Norio Konno, Takuya Machida, Tohru Wakasa, “The Heun differential equation and the Gauss differential equation related to quantum walks”, Yokohama Mathematical Journal (in press)
- K. Kominami, T. Nagai, T. Sawasaki, Y. Tsujimura, K. Yashima, et al, “In Vivo Imaging of Hierarchical Spatiotemporal Activation of Caspase-8 during Apoptosis”, PLoS ONE, 2012, 7(11): e50218
- 三浦千明, “小分散漸近理論を用いた集団遺伝学的研究”, 統計数理, 2012, 第 60 卷第 2 号
- Yumihiko S. Ikura, Ryoichi Tenno, Hiroyuki Kitahata, Nobuhiko J. Suematsu, Satoshi Nakata, “Suppression and Regeneration of Camphor-Driven Marangoni Flow with the Addition of Sodium Dodecyl Sulfate”, Journal of Physical Chemistry B, 2012, 116, pp. 992-996
- Satoshi Nakata, Tatsuya Miyaji, Taisuke Sato, Miho Hoshikawa, Yumihiko S. Ikura, Shunsuke Izumi, “Reciprocating Motion of a Self-Propelled Object on a Molecular Layer”, ChemPhysChem, 2012, 13, pp. 4129-4133
- Takaya Shiota, Yumihiko S. Ikura, Satoshi Nakata, “Oscillation of a Polymer Gel Entrained with a

Periodic Force”, J. Phys. Chem. B, 2013, 117, pp. 2215-2220

- Satoshi Nakata, Tatsuya Miyaji, Tomoaki Ueda, Taisuke Sato, Yumihiko S. Ikura, Shunsuke Izumi, Masaharu Nagayama, “Reciprocating Motion of a Self-Propelled Object on a Molecular Layer with a local minimum and a local maximum isotherm”, J. Phys. Chem. C, 2013, 117, pp. 6346-6352

(2) 論文 (査読なし)

- 向殿政男, “消費者安全を安全学から見る”, 生活経済研究, 生活経済学会, 2012-9, No,36
- 向殿政男, “フェールセーフ論理から多値論理へ”, 多値論理研究ノート, 多値論理研究会, 2012-9, Vol,35, No,9, pp. 9-1~9-12
- 向殿政男, “安全学を時間との関係で考えてみよう”, 日本安全学教育研究会誌, 日本安全学教育研究会, 2012-8, vol,5, pp. 89-92
- 向殿政男, “消費者事故の現状と教育に求めること”, 消費者教育研究, 日本消費者教育学会, 2012-8, No,153, pp. 8-9
- 向殿政男, “本質安全という概念について”, 品質, 2012-7, vol, 42, No, 3, pp. 290-297
- 梅崎重夫, 濱島京子, 谷口稔和, 向殿政男, “人間機械システムで扱う安全関連情報の基本特性の考察と災害情報データベースの構築”, 第42回信頼性・保全性シンポジウム発表論文集, 日本化学技術連盟, 2012-7, pp. 293-298
- 向殿政男, “安全とファジィ~どこまでやったら安全か~”, 知能と情報, 日本知能情報ファジィ学会, 2012-4, vol, 24, No, 2, pp. 55-62
- 向殿政男, “ロボットの安全技術の概要と最新動向”, ロボット, 日本ロボット工業会, 2013-3, No, 211, pp. 1-7
- 向殿政男, “コンピュータと教育”, 明治大学教育会紀要, 明治大学教育会, 2012-3, 第 4号 No. 7-23
- 向殿政男, “安全は、みんなで作る時代”, 消費者問題・大所高所, 消費者 NOW! , 消費者庁, 2013-3-21, No.11, pp. 14
- 向殿政男, “リスクが極めて高いシステムに対する安全設計思想について~原子力発電に対する一考察~”, SE セーフティエンジニアリング, 総合安全工学研究所, 2013-3, No. 170, pp. 10-15
- 向殿政男, “社会における技術リスクの捉え方”, エネルギーレビュー, エネルギーレビューセンター, 2013-3, pp. 18-21
- 生島ヒロシ, 向殿政男, 木村昌平, “対談: これからの日本社会の安全をめぐる展望”, SECURITY TIME, 全国警備業協会, 2013-1, vol, 411, pp. 10-17
- 刈屋武昭, 前川功一他編著, “経済時系列分析の考え方”, 経済時系列分析ハンドブック, 朝倉書店, 2012-11, pp. 3-18
- 刈屋武昭, 前川功一他編著, “ディフュージョンインデックスと質的データ”, 経済時系列分析ハンドブック, 2012-11, pp. 350-365
- 刈屋武昭, 前川功一他編著, “現在価値分析と Cambell-Shiller モデル”, 経済時系列分析ハンドブック, 2012-11, pp. 523-536
- 刈屋武昭, 前川功一他編著, “金利の期間構造モデル”, 経済時系列分析ハンドブック, 2012-11, pp. 570-584
- Tee Kian Heng, 刈屋武昭, “気温時系列モデルとリスクマネジメント”, 経済時系列分析ハンドブック, 2012-11, pp. 647-663

- 刈屋武昭, “環境時系列分析：リサイクル事業分析例”, 経済時系列分析ハンドブック, 2012-11, pp. 677-689
- 刈屋武昭, “デリバティブ価格理論の基礎”, 経済セミナー, 2012-6, pp. 37-43
- T. Kariya, “A CB (corporate bond) pricing model for deriving default probabilities and recovery rates”, To appear from Contributions to Probability and statistics in honor of Morris L. Eaton, Institute of Mathematical Statistics, 2012 (to appear)
- 大貫安彦, 森啓之, “連続型潮流計算の確率電圧安定度評価への適用”, 平成 24 年電気学会電力技術・電力系統技術合同研究会, 東京大学, 2012-8, 資料番号 PE-12-068/PSE-12-080
- 高橋政人, 森啓之, “ガウシアンプロセスを用いた日射量予測”, 平成 24 年電気学会電力技術・電力系統技術合同研究会, 東京大学, 2012-8, 資料番号 PE-12-139/PSE-12-155
- 横山裕久, 森啓之, “配電系統再構成問題に対する多目的メタヒューリスティクスの適用”, 平成 24 年電気学会電力技術・電力系統技術合同研究会, 東京大学, 2012-8, 資料番号 PE-12-040/PSE-12-056
- 中土居樹, 森啓之, “DR を考慮した送電系統拡張計画”, 平成 24 年電力技術・電力系統技術合同研究会, 2012-8, PE-12-143/PSE-12-159
- 高橋政人, 森啓之, “EPSO を用いた GRBFN による太陽光発電出力予測”, 平成 24 年電気学会 B 部門大会, 論文 I, 論文番号 13, 2012-9
- 横山裕久, 森啓之, “多目的メタヒューリスティクスの太陽光発電を持つ配電系統再構成への応用”, 平成 24 年電気学会電力・エネルギー部門, 論文 II, 論文番号 119, 2012-9
- 中土居樹, 森啓之, “階層的最適化を用いた送電系統拡張計画”, 平成 24 年電気学会 B 部門大会, 論文 II, 論文番号 213, 2012-9
- 大貫安彦, 森啓之, “太陽光発電を持つ電力系統電圧安定度指標”, 平成 24 年電気学会 B 部門大会, 論文 II, 論文番号 242, 2012-9
- 西森拓, “砂丘の動きを記述する単純な方程式”, パリティ(丸善出版), 2012-3, pp.40-45
- 西森拓, “現代に息づくチューリングの自己組織化 - アリとチューリング -”, 数学セミナー, 日本評論社, 2012-7, pp. 30-35
- Y. Tanokura, H. Tsuda, S. Sato, G. Kitagawa, “Index Development for a Market with Heavy-tailed Distributions”, The 59<sup>th</sup> World Statistics Congress, Hong Kong, August 25-30, to appear in the proceedings, 2013-3 (accepted).
- 小川知之, “パターン形成の分岐解析 (1)”, pp. 45-50, 応用数理 2012-03, vol. 22, No. 1.
- 小川知之, “パターン形成の分岐解析 (2)”, pp. 54-59, 応用数理 2012-06, vol. 22, No. 2.
- 小川知之, “パターン形成の分岐解析 (3)”, pp. 38-43, 応用数理 2012-09, vol. 22, No. 3.
- 小川知之, “パターン形成の分岐解析 (4)”, pp. 30-35, 応用数理 2012-12, vol. 22, No. 4.
- 高安秀樹, “経済・社会物理学の展望”, システム/制御/情報 56, 2012, pp. 511-516
- 杉原厚吉, “不可能立体 - 錯視エンタテインメントへの一つの挑戦 -”, オペレーションズ・リサーチ, 2013, vol. 58, No. 3, pp. 143-148
- 岡嶋亮子, “巻貝殻形態における陸上環境への適応と不連続分布”, 形の科学会誌, 2012, 第 27 巻第 1 号, pp. 35-36
- Edwin Hancock, Norio Konno, Vito Latora, Takuya Machida, Vincenzo Nicosia, Simone Severini, Richard Wilson, “Co-evolution of networks and quantum dynamics: a generalization of the Barabasi-Albert model of preferential attachment”, arXiv: 1302.0887
- Takuya Machida, “A quantum walk with a non-localized initial state: contribution from a



coin-flip operator”, arXiv: 1203.5396

- Siew, H. Y., Pooi, A. H., “Analysis of the Wenchuan aftershock data”, (submitted)
- Siew, H. Y., Zhuang, J., “A simultaneous estimation of the baseline intensity and parameters for modulated renewal processes”, (submitted)
- Yumihiko S. Ikura, Eric Heisler, Akinori Awazu, Hiraku Nishimori, Satoshi Nakata, “Collective motion of symmetric camphor papers in an annular water channel”, Phys, Rev, E 投稿中
- Satoshi Nakata, Misato Hata, Yumihiko S. Ikura, Eric Heisler, Akinori Awazu, Hiraku Nishimori, “Motion with Memory of a Self-propelled Motor”, 投稿中
- Satoshi Nakata, Takato Ezaki, Yumihiko S. Ikura, Hiroyuki Kitahata, “Chemical Wave Propagation Preserved on an Inhibitory Field in the Ruthenium-Catalyzed Belousov-Zhabotinsky Reaction”, 投稿中

### (3) 著書

- 向殿政男, 柚原, 稲垣, 古川編, “機械設計におけるヒューマンエラー対策”, ヒューマンエラーと機械・システム設計, 講談社, 2012, pp.36-81
- 向殿政男, 大石芳裕編著, “日本の新しいものづくりに向けて”, MOT 教育の総合的研究, 白桃書房, 2013, pp.1-15
- 刈屋武昭, 前川功一他編著, “経済時系列分析ハンドブック”, 朝倉書店, 2012
- T. Shibata, “Stochastic Fluctuations and Spontaneous Symmetry Breaking in the Chemotaxis Signaling System of Dicyostelium Cells”, Engineering of Chemical Complexity, Alexander S Mikhailov, Gerhard Ertl. eds. World Scientific Pub. Co. Inc., pp.187-200, ISBN 978-981-4390-45-3
- T. Sunada, “Topological Crystallography: With a View towards Discrete Geometric Analysis”, Springer, 2012
- 杉原厚吉, “だまし絵と線形代数”, 共立出版, 2012
- 杉原厚吉, “錯視図鑑”, 誠文堂新光社, 2012
- 杉原厚吉, “超ふしぎ体験! 立体トリックアート工作キットブック”, 金の星社, 2012
- A. Okabe, K. Sugihara, “Spatial Analysis along Networks: Statistical and Computational Methods”, John Wiley & Sons, Ltd., Chichester, UK, 2012
- 杉原厚吉, “まえがき”, 小さな美術館 M.C.エッシャー, 青幻社, 京都, 2012
- 杉原厚吉, “大学教授という仕事”, 増補版, 水曜社, 東京, 2012
- 杉原厚吉, 岩田修一総監修, 河口洋一郎図版監修, “ポロノイ図” “錯視” “不可能図形” “不可能立体” 4 項目執筆. かたち創造の百科事典編集委員会: 「かたち創造の百科辞典」, 丸善出版, 2012

### (4) 受賞

- 砂田利一, 2013 年度日本数学会出版賞, 日本数学会 2013 年度年会, 2013 年 3 月
- 小野隼, 友枝明保, 杉原厚吉, 第 4 回錯視コンテスト (日本基礎心理学会第 31 回大会併設コンテスト) 入賞, “満月のこうもり”, 日本基礎心理学会, 2012 年 11 月
- 岩本真裕子, 小林亮, 上山大信, 日本応用数理学会優秀ポスター賞(2012 年度), “腹足類の這行運動メカニズムにおける粘液の摩擦制御効果”, JSIAM 2012 Annual Meeting, 2012 年
- 立石恵大, 木下修一, 上山大信, 末松 J.信彦, 岩本真裕子, 日本応用数理学会優秀ポスタ

一賞(2012年度), “非一様な興奮場におけるスパイラル波の発生に関するシミュレーション解析”, JSIAM 2012 Annual Meeting, 2012年

## (5) 講演

### ア. 口頭発表

- 向殿政男, “労働安全衛生マネジメントとよくわかるリスクアセスメント”, 平成24年安全衛生大会, 日本メックス(株), 銀座ブロッサム, 2012年4月20日
- 向殿政男, “ISO TC199 機械安全における安全の論理と理念—この考え方はすべての分野の安全に通じる—”, 品質と安全文化フォーラム, 明治大学紫紺館, 2012年4月24日
- 向殿政男, “今、求められる安全文化とリスクアセスメント”, 安全文化講演会, (株)日立物流, 2012年4月26日
- 向殿政男, “国際規格における安全の論理と理念”, ビューローベリタス TOP RUNNER MEETING 2012, 横浜マリントワー, 2012年5月8日
- 向殿政男, “発展する明治大学”, 茅ヶ崎地域支部30周年記念, 茅ヶ崎市民文化会館, 2012年5月13日
- 向殿政男, “今、求められる安全文化とリスクアセスメント”, 情報労連・労働安全衛生フォーラム, 全電通会館, 東京, 2012年5月14日
- 向殿政男, “安全学から見た日本の未来とICTの役割”, 日本情報経営学第64回全国大会基調講演, 明治大学駿河台校舎リバティタワー, 2012年6月2日
- 向殿政男, “原子力とエネルギー問題について～安全学の視点から～”, 明治大学公開講演会 明治大学佐賀県支部主催, 2012年6月5日
- 向殿政男, “私たちの身の回りの安全を考える～こんにやくゼリーから原発・放射線まで～”, 明治高等学校中学校PTA講演会, 2012年6月9日
- 向殿政男, “発展する明治大学と変わらぬ理念”, 明治大学校友会広島県支部総会, 2012年6月17日
- 向殿政男, “消費者安全を安全学から見る”, 生活経済学会「安全で持続可能な社会をめざして」, 明治大学駿河台キャンパス, 2012年6月23日
- 向殿政男, “消費者事故の現状と教育に求めること”, 消費者教育シンポジウム(財)消費者教育支援センター, 国立オリンピック記念青少年総合センター, 東京, 2012年6月26日
- 中村雅人, 向殿政男, 河村真紀子, 木村よし子, 白石裕美子, “パネル: この事故、調べてくれますか?”, 全国消費者団体連絡会2012年度PLオンブズマン会議報告会, 主婦会館, 2012年6月27日
- 向殿政男, “ルールを守り 目指すゴールは災害ゼロの明るい職場”, 愛知産業安全衛生大会特別講演, 2012年7月4日
- 向殿政男, “安全リテラシーとリスクコミュニケーション”, 東京大学 安全の日, 伊藤国際学術研究センター, 東京大学, 2012年7月10日
- 梅崎重夫, 濱島京子, 谷口稔和, 向殿政男, “人間機械システムで扱う安全関連情報の基本特性の考察と災害情報データベースの構築”, 第42回信頼性・保全性シンポジウム, 日本化学技術連盟, 日本教育会館, 東京, 2012年7月13日
- 向殿政男, “原子力の安全とエネルギー問題”, てんどう笑顔塾 明治大学・天童市連携事業, 2012年7月20日