

2011 年度 日比チーム発表論文

- [1] T. Shibuta, One-dimensional rings of finite F-representation type, *J. Algebra* 332 (2011), 434--441 (DOI:10.1016/j.jalgebra.2011.01.009)
- [2] J. Herzog, T. Hibi and H. Ohsugi, Powers of componentwise linear ideals, “Combinatorial Aspects of Commutative Algebra and Algebraic Geometry” (G. Floystad et al., Eds.) *Abel Symposia* 6, 2011, pp. 49--60 (DOI: 10.1007/978-3-642-19492-4_4)
- [3] T. Hibi, and A. Higashitani, Smooth Fano polytopes arising from finite partially ordered sets, *Discrete Comput. Geom.* 45 (2011), 449--461 (DOI: 10.1007/s00454-010-9271-2)
- [4] 大津起夫, 橋本貴充, 非線形因子分析によるセンター試験英語問題の難易度比較, *日本テスト学会誌* 7 (2011), 1--14
- [5] H. Hara and A. Takemura, A Markov basis for two-state toric homogeneous Markov chain model without initial parameters, *J. Japan Statistical Society* 41 (2011), 33--49
- [6] T. Kawazoe and M. Noro, Algorithms for computing a primary ideal decomposition without producing intermediate redundant components, *J. Symbolic Comput.* 46 (2011), 1158--1172 (DOI: 10.1016/j.jsc.2011.06.001)
- [7] K. Tadaki, A Chaitin Ω number based on compressible strings, *Natural Computing* 11 (2012), 117--128 (DOI: 10.1007/s11047-011-9272-y)
- [8] H. Nakayama, K. Nishiyama, M. Noro, K. Ohara, T. Sei, N. Takayama and A. Takemura, Holonomic Gradient Descent and its Application to the Fisher--Bingham Integral, *Advances Appl. Math.* 47 (2011), 639--658 (DOI:10.1016/j.aam.2011.03.001)
- [9] T. Hibi, A. Higashitani, H. Ohsugi, Roots of Ehrhart polynomials of Gorenstein Fano polytopes, *Proc. Amer. Math. Soc.* 139 (2011), 3727--3734 (DOI:10.1090/S0002-9939-2011-11013-X)
- [10] K. Nuida, T. Abe, S. Kaji, T. Maeno and Y. Numata, A mathematical problem for security analysis of hash functions and pseudorandom generators, “Advances in Information and Computer Security” (T. Iwata and M. Nishigaki, Eds.) *Lecture Notes in Computer Science* 7038, Springer--Verlag, 2011, pp. 144--160 (DOI:10.1007/978-3-642-25141-2_10)
- [11] T. Hibi, A. Higashitani, K. Kimura and A. O'Keefe, Depth of edge rings arising from finite graphs, *Proc. Amer. Math. Soc.* 139 (2011), 3807--3813 (DOI: 10.1090/S0002-9939-2011-11083-9)

- [12] K. Tadaki, Fixed point theorems on partial randomness, *Annals Pure and Applied Logic* 163 (2012), 763--774 (DOI: 10.1016/j.apal.2011.09.018)
- [13] S. Aoki and A. Takemura, Design and analysis of fractional factorial experiments from the viewpoint of computational algebraic statistics, *Journal of Statistical Theory and Practice* 6 (2012), 147--161 (DOI: 10.1080/15598608.2012.647556)
- [14] J. Gotoh and A. Takeda, On the role of norm constraints in portfolio Selection, *Computational Management Science*, 8 (2011), 323--353 (DOI: 10.1007/s10287-011-0130-2)
- [15] T. Matsui, A. Higashitani, Y. Nagazawa, H. Ohsugi and T. Hibi, Roots of Ehrhart polynomials arising from graphs, *J. Algebraic Combinatorics* 34 (2011), 721--749 (DOI: 10.1007/s10801-011-0290-8)
- [16] T. Shibuta, Algorithms for computing multiplier ideals, *J. Pure and Appl. Algebra* 215 (2011), 2829--2842 (DOI:10.1016/j.jpaa.2011.04.002)
- [17] H. Kamiya, A. Takemura and H. Terao, Periodicity of non-central integral arrangements modulo positive integers, *Annals Combinatorics* 15 (2011), 449--464 (DOI: 10.1007/s00026-011-0105-6)
- [18] 大津起夫, Prolog を用いた XML パーザによる統計情報の分析と表示, *応用統計学* 40 (2011), 173--191
- [19] T. Kanamori and A. Takeda, Worst-case violation of sampled convex programs for optimization with uncertainty, *J. Optimization Theory and Applications* 152 (2012), 171--197 (DOI: 10.1007/s10957-011-9923-2)
- [20] T. Abe and Y. Numata, Exponents of 2-multiarrangements and multiplicity lattices, *J. Algebraic Combinatorics* 35 (2012), 1--17 (DOI:10.1007/s10801-011-0291-7)
- [21] H. Ohsugi and K. Shibata, Smooth Fano polytopes whose Ehrhart polynomial has a root with large real part, *Discrete Comput. Geom.* 47 (2012), 624--628 (DOI: 10.1007/s00454-012-9395-7)
- [22] K. Tadaki, Phase transition between unidirectionality and bidirectionality, "Computation, Physics and Beyond" (M. J. Dinneen et al., Eds.), *Lecture Notes in Computer Science Festschrifts Series* 7160, Springer-Verlag, 2012, pp. 203--223 (DOI: 10.1007/978-3-642-27654-5_16)
- [23] J. Gotoh and A. Takeda, Minimizing loss probability bounds for portfolio selection, *European J. Operational Research*, 217 (2012), 371--380 (DOI: 10.1016/j.ejor.2011.09.012)
- [24] A. Takemura and H. Hara, Markov chain Monte Carlo test of toric homogeneous Markov chains, *Statistical Methodology* 9 (2012), 392--406

(DOI:10.1016/j.stamet.2011.10.004)

- [25] T. Shibuta, Gröbner bases of contraction ideals, *J. Algebraic Combinatorics*, to appear
- [26] T. Shibuta, Irreducibility criterion for algebroid curves, *Mathematics of Computation*, to appear
- [27] T. Shibuta, On irreducibility of algebroid curves over the complex number field “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi, Ed.), *World Scientific, Singapore, 2012, 336--345*
- [28] T. Hamada and KNOPPIX/Math committers, KNOPPIX/Math: a live system for mathematics, “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi, Ed.), *World Scientific, Singapore, 2012, 41--44*
- [29] H. Hara, S. Aoki and A. Takemura, Running Markov chain without Markov basis, “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi Ed.), *World Scientific, Singapore, 2012, 45--62*
- [30] S. Kuriki, T. Miwa and A. Hayter, Abstract tubes associated with perturbed polyhedra with applications to multidimensional normal probability computations, “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi, Ed.), *World Scientific, Singapore, 2012, 169--183*
- [31] H. Nakayama, An Algorithm of Computing Difference Equations for a Definite Sum, “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi, Ed.), *World Scientific, Singapore, 2012, 184--192*
- [32] K. Nishiyama and N. Takayama, Incomplete A-Hypergeometric Systems, “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi, Ed.), *World Scientific, Singapore, 2012, 193--212*
- [33] M. Noro, Implementation of a primary decomposition package, “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi, Ed.), *World Scientific, Singapore, 2012, 213--227*
- [34] H. Ohsugi, A dictionary of Gröbner bases of toric ideals, “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi, Ed.), *World Scientific, Singapore, 2012, 253--281*
- [35] T. Kashimura, T. Sei, A. Takemura and K. Tanaka, Cones of elementary imsets and supermodular functions: a review and some new results, “Harmony of Gröbner Bases and the Modern Industrial Society” (T. Hibi, Ed.), *World Scientific, Singapore, 2012, 117--152*
- [36] Y. Numata and A. Takemura, On computation of the characteristic polynomials of the discriminantal arrangements and the arrangements generated by generic

- points, “Harmony of Gröbner Bases and the Modern Industrial Society”
(T. Hibi, Ed.), World Scientific, Singapore, 2012, 228--252
- [37] K. Tadaki, A statistical mechanical interpretation of algorithmic information theory III: Composite systems and fixed points, *Mathematical Structures in Computer Science*, to appear
- [38] F. Descouens, H. Morita and Y. Numata, On a bijective proof of a factorization formula for Macdonald polynomials, *European J. Combin.*, to appear
- [39] H. Kamiya, A. Takemura and H. Terao, Arrangements stable under the Coxeter groups, “Proceedings of Configuration Spaces Geometry, Topology and Combinatorics,” to appear
- [40] 加藤直広, 栗木哲, 2次多項式回帰曲線の正值性検定, *応用統計学*, 印刷中