

Applied Mathematics

September 24th (Tue)

9:45–12:00

- 1 Chihiro Matsuoka (Ehime Univ.)[#] Entropy estimation of the Hénon attractor 15
Koichi Hiraide (Ehime Univ.)
- 2 Kenta Noguchi (Keio Univ.)[#] Congruence classes of the monodromy of even triangulations on surfaces
..... 15
- 3 Valentin Borozan [#] Partitioning a graph into highly connected subgraphs 10
(Univ. Paris 11/Hungarian Academy of Sci.)
Shinya Fujita (Maebashi Inst. of Tech.)
Michitaka Furuya (Tokyo Univ. of Sci.)
Yannis Manoussakis (Univ. Paris 11)
Narayanan N (Indian Inst. Tech.)
- 4 Iwao Sato (Oyama Nat. Coll. of Tech.)[#] The vertex weighted complexity of a graph 15
Hongfeng Wu (Peking Univ.)
Rongquan Feng (Peking Univ.)
- 5 Yutaka Sueyoshi (Nagasaki Univ.)[#] On the maximal value of break intervals of equitable round-robin tour-
Ryuichi Harasawa (Nagasaki Univ.) naments with home-away assignments (II) 15
Aichi Kudo (Nagasaki Univ.*)
- 6 Akane Kawaharada (Hiroshima Univ.)[#] Inverse ultradiscretization of a two-dimensional nonlinear cellular au-
tomaton 15
- 7 Kousuke Suzuki (Univ. of Tokyo)[#] An explicit construction of point sets with large minimum Dick weight
..... 15
- 8 Kenta Ozeki [#] Condition on the core to be Class 1 10
(Nat. Inst. of Information/JST ERATO)

14:15–16:30

- 9 Michitaka Furuya (Tokyo Univ. of Sci.)[#] On monochromatic homeomorphically irreducible trees in 2-edge-colored
Shoichi Tsuchiya (Tokyo Univ. of Sci.) complete graphs 15
- 10 Shin Harase (Tokyo Tech)[#] A construction of low-WAFOM point sets based on the digital construc-
Ryuichi Ohori (Univ. of Tokyo) tion scheme 15
- 11 Masataka Nakamura (Univ. of Tokyo)[#] Supersolvable antimatroid lattices and rooted circuit graphs 15
Kenji Kashiwabara (Univ. of Tokyo)
- 12 Masataka Nakamura (Univ. of Tokyo)[#] The idempotence, the exchange property, and the anti-exchange prop-
Kenji Kashiwabara (Univ. of Tokyo) erty of monotone extensive operators 15
- 13 Yasuko Matsui (Tokai Univ.)[#] An enumeration algorithm for the optimal cost vertex colorings for trees
Kento Kizaka (Tokai Univ.) 15
- 14 Kazuhiko Ushio (Kinki Univ.)[#] Balanced (C_9, C_{14}) -foil designs and related designs 15
- 15 Masanori Sawa (Nagoya Univ.)[#] A lemma on the eigenvalues of Hermitian matrices and its application
1 —Eigenvalues of adjacency matrices and graph decomposition 15
- 16 Mariko Hagita (Ochanomizu Univ.)[#] Dispersive coloring polynomials of some graphs 15

16:50–17:50 Talk invited by Applied Mathematics SectionMasaaki Harada (Yamagata Univ.)[#] Self-dual codes and related topics

September 25th (Wed)

9:45–12:00

- 17 Masahiro Hachimori[#] Simplicial complexes whose restrictions are all shellable, and extendability of shellings 15
(Univ. of Tsukuba)
Kenji Kashiwabara (Univ. of Tokyo)
- 18 Kiyoshi Ando (Univ. of Electro-Comm.)[#] Contractible subgraphs in 5-connected graphs 15
- 19 Atsuhiko Nakamoto[#] Balanced partitions on permutations and their application to a geometric problem 15
(Yokohama Nat. Univ.)
Yoshiaki Oda (Keio Univ.)
Tomoki Yamashita (Kinki Univ.)
Mamoru Watanabe
(Kurashiki Univ. of Sci. and Arts)
- 20 Minoru Fujimoto (Seika Science Lab.)[#] An algorithm for the pair of primes of difference $2d$ and Hardy–Littlewood conjecture 15
Kunihiko Uehara (Tezukayama Univ.)
- 21 Minoru Fujimoto (Seika Science Lab.)[#] An algorithm for the Sophie Germain primes and the twin primes 15
Kunihiko Uehara (Tezukayama Univ.)
- 22 Naoki Matsumoto[#] The order of snarks can be embedded in surfaces 15
(Yokohama Nat. Univ.)
Michal Kotrbčik (Comenius Univ.)
- 23 Ronald J. Gould (Emory Univ.)[#] Vertex-disjoint doubly chorded cycles in a graph 10
Paul Horn (Harvard Univ.)
Kazuhide Hirohata
(Ibaraki Nat. Coll. of Tech.)
- 24 Atsuhiko Nakamoto Grünbaum coloring of Eulerian triangulations on surfaces 15
(Yokohama Nat. Univ.)

13:00–14:00 Talk invited by Applied Mathematics SectionKanakano Suzuki (Ibaraki Univ.)[#] Dynamics of some reaction-diffusion-ODE systems

September 26th (Thu)

9:30–10:20

- 25 Kazuki Sano (Nihon Univ.)[#] Precoloring extension involving pairs of vertices of small distance 15
Chihoko Ojima (Nihon Univ.)
Akira Saito (Nihon Univ.)
- 26 Katsuhiko Ota (Keio Univ.)[#] Vertex-disjoint chorded cycles of the same length 15
Guantao Chen (Georgia State Univ.)
Ronald J. Gould (Emory Univ.)
Kazuhide Hirohata
(Ibaraki Nat. Coll. of Tech.)
Songling Shan (Georgia State Univ.)

- 27 Shunzi Horiguchi (Niigata Sangyo Univ.)[#] Continued fraction presentations of the powers of square root and cubic root by the Tsuchikura–Horiguchi’s method (the first extension recurrence formula of Murase Yoshimasu–Newton’s type) 15

10:30–12:00 Special Session “Japanese chess and puzzle”

- Masato Shinoda (Nara Women’s Univ.)[#] How to design strong computer Shogi programs 40
- Hideki Tsuiki (Kyoto Univ.)[#] Imaginary cube puzzles 40

14:15–17:45

- 28 Takashi Okuda Sakamoto (Meiji Univ.)[#] Bogdanov–Takens bifurcation in a three component reaction-diffusion system in the presence of 0:1:2 resonance 15
- 29 Hirofumi Izuhara (Meiji Univ.)[#] Spatio-temporal oscillation in the Keller–Segel system with growth . . . 15
Shin-Ichiro Ei (Kyushu Univ.)
Masayasu Mimura (Meiji Univ.)
- 30 Shingo Iwami (Kyushu Univ.)[#] An existence of conserved quantity in virus infection experiment 15
Yusuke Kakizoe (Kyushu Univ.)
Satoru Morita (Shizuoka Univ.)
- 31 Hiromi Seno (Tohoku Univ.)[#] A simple mathematical model for the annual variation of epidemic outbreak with prevention level affected by past incidence sizes 15
Ayaka Terada (Hiroshima Univ.)
Mika Inoue (Hiroshima Univ.)
- 32 Tetsuya Ishiwata (Shibaura Inst. of Tech.)[#] Spiral-shaped solutions to crystalline curvature flow with a moving tip 15
- 33 Takeshi Ohtsuka (Gunma Univ.)[#] Crystal growth by a co-rotating pair of screw dislocations 15
Yoshikazu Giga (Univ. of Tokyo)
Yen-Hsi Richard Tsai (The Univ. of Texas at Austin)
- 34 Takaaki Aoki (Kyoto Univ.)[#] Some mathematical properties of the dynamically inconsistent Bellman equation: A note on the two-sided altruism dynamics 15
- 35 Naoto Nakano (Tohoku Univ.)[#] Statistical coefficients formulae and orbit predictability in a data analysis method in the framework of stochastic differential equations 15
Yoshitaka Saiki (Hitotsubashi Univ.)
Masaru Inatsu (Hokkaido Univ.)
Seiichiro Kusuoka (Tohoku Univ.)
- 36 Masaji Watanabe (Okayama Univ.)[#] Modeling and simulation for microbial depolymerization processes of xenobiotic polymers with time factor of degradation rate 15
Fusako Kawai (Kyoto Inst. Tech.)
- 37 Kei Nishi (Hokkaido Univ.)[#] Behavior of a front-back pulse arising in a bistable reaction-diffusion system with jump-type heterogeneity 15
Yasumasa Nishiura (Tohoku Univ.)
Takashi Teramoto (Asahikawa Medical Univ.)
- 38 Nobuyuki Higashimori (Hitotsubashi Univ.)[#] An inverse problem of determining coefficients in a one-dimensional radiative transport equation 15
- 39 Masato Kimura (Kanazawa Univ.)[#] A discrete phase field model of fracture on a spring-block system 15
Hirofumi Notsu (Waseda Univ.)

September 27th (Fri)

9:00–12:00

- 40 Yusuke Imoto (Kyushu Univ.)[#] Truncation error analysis of approximated operators on SPH and MPS
Daisuke Tagami (Kyushu Univ.) method 15
- 41 Hirofumi Notsu (Waseda Univ.)[#] Error estimates and computation of a pressure-stabilized characteristics
Masahisa Tabata (Waseda Univ.) finite element scheme for the Navier–Stokes equations 15
- 42 Yoshihiro Saito[#] Numerical asymptotic stability of the simplified order 2.0 weak Taylor
(Gifu Shotoku Gakuen Univ.) scheme 15
- 43 George Miyake[#] An analysis of nonlinear symmetrical differential equations with dihedral
(Ube Nat. Coll. of Tech.) group and odd function 15
Yuji Katsuta (Ube Nat. Coll. of Tech.)
- 44 Naoharu Ito (Nara Univ. of Edu.)[#] Boundedness of the solutions of higher order systems of linear difference
equations 15
- 45 Shuichi Jimbo (Hokkaido Univ.)^{*} Eigenvalues of Laplacian in a domain with a thin tubular hole 15
- 46 Harunori Monobe (Meiji Univ.)[#] Multiple existence of traveling waves of a free boundary problem 15
Hirokazu Ninomiya (Meiji Univ.)
- 47 Mi-Ho Giga (Univ. of Tokyo)[#] On behavior of signs for the heat equation and a diffusion method for
Yoshikazu Giga (Univ. of Tokyo) data separation 15
Takeshi Ohtsuka (Gunma Univ.)
Noriaki Umeda (Meiji Univ.)
- 48 Hideki Murakawa (Kyushu Univ.)[#] Error estimates for discrete-time approximations of nonlinear cross-
diffusion systems 15
- 49 Kousuke Abe (Nihon Univ.)^{*} A remark on the Courant–Friedrichs–Lewy condition in finite difference
Nobuyuki Higashimori approach 15
(Hitotsubashi Univ.)
Masayoshi Kubo (Kyoto Univ.)
Hiroshi Fujiwara (Kyoto Univ.)
Yuusuke Iso (Kyoto Univ.)
- 50 Masataka Kuwamura (Kobe Univ.)[#] Turing patterns in prey-predator systems with dormancy of predators
..... 15

14:15–16:45

- 51 Koya Sakakibara (Meiji Univ.)[#] An extension of Amano’s method for numerical conformal mappings to
Masashi Katsurada (Meiji Univ.) non-starlike domains and the method based on the dipole simulation
method 15
- 52 Takahito Kashiwabara (Univ. of Tokyo)[#] On the convergence of Robin boundary condition to Dirichlet or Neu-
mann ones 15
- 53 Takuya Tsuchiya (Waseda Univ.)[#] A new numerical scheme for Einstein equations with discrete variational
derivative method 15
- 54 Akitoshi Takayasu (Waseda Univ.)[#] The constructive implicit function theorem and its applications to con-
Shin’ichi Oishi tinuation method 15
(Waseda Univ./JST CREST)
- 55 Yoshitaka Watanabe (Kyushu Univ.)[#] A numerical verification method for nonlinear functional equations
Mitsuhiro T. Nakao based on infinite-dimensional Newton-like iteration 15
(Sasebo Nat. Coll. of Tech.)

- 56 Guanyu Zhou (Univ. of Tokyo) # Fictitious domain method with the L^2 -penalty and application to the
 Norikazu Saito (Univ. of Tokyo) finite element and finite volume methods 15
- 57 Takiko Sasaki (Univ. of Tokyo) # A second-order scheme for a system of nonlinear Schrödinger equations
 15
- 58 Issei Oikawa (Waseda Univ.) # Hybridized discontinuous Galerkin method with the $P_1 - P_0$ 15
- 59 Daisuke Koyama # Korn's inequality for a hybridized discontinuous Galerkin FEM with
 (Univ. of Electro-Comm.) lifting operator 15
 Fumio Kikuchi (Hitotsubashi Univ.)

17:00–18:00 Talk invited by Applied Mathematics Section

- Takaharu Yaguchi (Kobe Univ.) # Energy-preserving numerical methods based on the finite element exterior calculus for wave-type differential equations