Applied Mathematics

March 15th (Sat) Conference Room IX

09:30-11:50 09-01-0006	
1 Kazuhiko Ushio (Kinki Univ.) ‡	Balanced C_4 -foil designs and related designs $\cdots 15$
09-01-0007 2 Iwao Sato (Oyama Nat. Coll. of Tech.) [‡] Norio Konno (Yokohama Nat. Univ.) Yusuke Higuchi (昭和大教養) Etsuo Segawa (Tohoku Univ.)	A note on the discrete-time evolutions for quantum walk on a graph
09-01-0020 3 Jung-Rae Cho (Pusan Nat. Univ.) Jeongmi Park (Pusan Nat. Univ.) Yoshio Sano (Univ. of Tsukuba)	Travel groupoids on infinite graphs · · · · · · · 10
09-01-0021 4 Jung-Rae Cho (Pusan Nat. Univ.) [‡] Jeongmi Park (Pusan Nat. Univ.) Yoshio Sano (Univ. of Tsukuba)	The non-confusing travel groupoids on a finite connected graph $\cdots 10$
$\begin{array}{ccc} ^{09-01-0011} & & \text{(Nihon Univ.)}^{\sharp} \\ & \text{Michael D. Plummer (Vanderbilt Univ.)} \end{array}$	Contraction-critical graphs with respect to independence number $\cdots15$
09-01-0024 6 Atsuhiro Nakamoto (Yokohama Nat. Univ.) Kenta Ozeki (Nat. Inst. of Information/JST ERATO) Kenta Noguchi (Keio Univ.)	Division problems on closed surfaces · · · · · · · · 15
7 Yusuke Suzuki (Niigata Univ.) $^{\sharp}$	Reductional operations for polyhedral quadrangulations · · · · · · · 15
09-01-0046 8 Guantao Chen (Georgia State Univ.) # Hikoe Enomoto (Waseda Univ.) Kenta Ozeki (Nat. Inst. of Information/JST ERATO) Shoichi Tsuchiya (Tokyo Univ. of Sci.)	Plane triangulations without spanning Halin subgraphs · · · · · · · 15
14:30-16:40	
09-01-0033 9 Chie Nara (Tokai Univ.)	Transformability and reversibility of unfoldings of doubly-covered polyhedra · · · · · · · · · · · · · · · · · · ·
09-01-0032 10 Maki Furukado (横浜国大経営) [‡] Shunji Ito (Toho Univ.) Shin-ichi Yasutomi (Toho Univ.)	The condition for the generation of the stepped surfaces in terms of the modified Jacobi–Perron algorithm
09-01-0055 11 Masato Mimura (Tohoku Univ.) *	Spehere equivalence, Banach spectral gaps, and extrapolation · · · · · · 12
09-01-0051 12 Masato Mimura (Tohoku Univ.)*	Multi-way isoperimetries and imprimitive group actions on finite graphs
09-01-0010 13 Hidefumi Ohsugi (Rikkyo Univ.) Akihiro Shikama (Osaka Univ.) Takayuki Hibi (Osaka Univ.) Aki Mori (Osaka Univ.)	The maximum number of edges of an edge polytope · · · · · · 20
09-01-0013 14 Satoshi Murai (Yamaguchi Univ.)	On flag f -vectors of polyhedral complexes $\cdots 10$

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09-01-0039 15 Masahiro Hachimori (Univ. of Tsukuba) Kenji Kashiwabara (Univ. of Tokyo)	Hereditary-shellability and vertex decomposability of simplicial complexes · · · · · · · 15			
09-01-0016 16 Masaya Tomie (盛岡大文) [‡]	Poset structures for pattern avoiding set partitions · · · · · · · 10			
16:50–17:50 Talk invited by A	pplied Mathematics Section			
09-02-0002	Free edge lengths in plane graphs			
March 16th (Sun) Conference Room IX				
09:30-11:30 09-01-0012				
	One elementary expression of $Zeta(3) \cdots 15$			
09-01-0002 18 Michiaki Kabe (関東職業能力開発大) ‡	How to detect scratches of sintered parts by using adjusted residuals of χ^2 test			
09-01-0015 19 Yoshihiro Mizoguchi (Kyushu Univ.) # Hisaharu Tanaka (Saga Univ.) Issei Sakashita (Kyushu Univ.) Shuichi Inokuchi (Kyushu Univ.)	Formal proofs for automata and sticker systems · · · · · · · 15			
09-01-0023 20 Yoshihito Ogasawara (Waseda Univ.) [‡] Shin'ichi Oishi (Waseda Univ.)	On spaces from primitive chaos · · · · · · · 15			
O9-01-0037 21 Guillaume Bacquela (Nihon Univ.) Yoshimi Egawa (Tokyo Univ. of Sci.) Shigeki Imamura (Nihon Univ.) Kenji Kimura (Tokyo Univ. of Sci.) Akira Saito (Nihon Univ.)	Offensive alliances in trees · · · · · · · · · · · · · · · · · ·			
22 Yoshimi Egawa (Tokyo Univ. of Sci.) Kenta Ozeki (Nat. Inst. of Information/JST ERATO)	Spanning trees with vertices having large degrees · · · · · · · 15			
13:00-14:30 09-01-0045 23 Akira Kamibeppu (Shimane Univ.) #	On the boxicity of generalized Mycielski graphs · · · · · · 15			
09-01-0048 24 Valentin Borozan (Univ. Paris-Sud 11) Gerard Jennhwa Chang	From edge-coloring to strong edge-coloring · · · · · · 10			
09-01-0014 25 Takehito Yoshiki (Univ. of Tokyo) #	The decay of the Walsh coefficients of a function which may not be differentiable · · · · · · · · · · · · · · · · · · ·			
09-01-0018 26 Kousuke Suzuki (Univ. of Tokyo) \sharp	WAFOM on abelian groups and the MacWilliams identity for the Dick weight · · · · · · · 15			
$\begin{array}{ccc} ^{09-01-0053} \\ 27 & \text{Shin Harase} \end{array}$ (Tokyo Tech) $^{\sharp}$	Low-WAFOM point sets with small t-values for quasi-Monte Carlo integration · · · · · · · 15			

${\it March~17th~(Mon)} \qquad {\it Conference~Room~IX}$

09:00–12:00 09-01-0004	
28 Shunzi Horiguchi (Niigata Sangyo Univ.)	Formulas to compare the convergence of Halley method and the extended Halley method (Tsuchikura–Horiguchi–Murase–Halley method) (in the case of an equation)
09-01-0005 29 Shunzi Horiguchi (Niigata Sangyo Univ.)	Numerical calculations of the formulas to compare the convergence of Halley method and the extended Halley method (Tsuchikura–Horiguchi–Murase–Halley method) (in the case of an equation) · · · · · · · · · · · · · · · · · · ·
09–01–0003 30 Hidetsugu Kohzaki (Kyoto Univ.) $^{\sharp}$	A Study on the quality assurance of mathematics education for medical technologist/paramedics in Japan
09-01-0008 31 Takaaki Aoki (Kyoto Univ.)‡	Some mathematical properties of the dynamically inconsistent Bellman equation: A note on the two-sided altruism dynamics
$^{09-01-0017}$ 32 Fumio Nakajima (Iwate Univ.)	A mathematical approach to the economy of atomic power generation
09-01-0019 33 Shy Der Lin (Chung Yuan Christian Univ.)	Caputo fractional derivative and its applications · · · · · · · · 15
09-01-0025 34 Noriaki Umeda (Meiji Univ.)‡	On non-well-definedness of the diffusive sign by the heat equation \cdots 15
09-01-0031 35 Hideo Kubo (Hokkaido Univ.) † Chao Chen (Tohoku Univ.)	Identifying dividend of underlying assets from option prices using Tikhonov regularization · · · · · · · 15
$^{09\text{-}01\text{-}0047}_{\mbox{36}}$ Naoharu Ito (Nara Univ. of Edu.) $^{\sharp}$	A note on generalized Sylvester equations over Bezout domains · · · · · · 18
09-01-0030 37 Takamichi Sushida (Ryukoku Univ.) ‡ Akio Hizume (Ryukoku Univ.) Yoshikazu Yamagishi (Ryukoku Univ.)	Voronoi spiral tilings · · · · · · · · · · · · · · · · · · ·
14:30-16:30 09-01-0050	
38 Hideki Murakawa (Kyushu Univ.) [‡] 09-01-0043	Mathematical models of cell-cell adhesion: diffusion or advection · · · · · 15
39 Masakazu Akiyama (Hokkaido Univ.) Masakazu Yamazaki (秋田大医)	A mathematical model of planar cell polarity · · · · · · · · · 15
09-01-0009 40 Tatsuki Mori (Ryukoku Univ.) Kousuke Kuto (Univ. of Electro-Comm.) Tohru Tsujikawa (Univ. of Miyazaki) Masaharu Nagayama (Hokkaido Univ.) Shoji Yotsutani (Ryukoku Univ.)	Structure and stability of stationary solutions to a reaction-diffusion model for cell polarization
09-01-0052 41 Masaji Watanabe (Okayama Univ.) ‡ Fusako Kawai (Kyoto Inst. Tech.)	Mathematical study on roll of microorganisms in microbial depolymerization processes
09-01-0028 42 Masaharu Nagayama (Hokkaido Univ.) Ken Wakai (Kanazawa Univ.) Kei Nishi (Hokkaido Univ.) Yasuaki Kobayashi (Hokkaido Univ.) Yumihiko Ikura (Hokkaido Univ.) Satoshi Nakata (Hiroshima Univ.)	Mathematical analysis for the collective motion of camphor disks · · · · 18

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43	Kota Ikeda (Meiji Univ.) * Masaharu Nagayama (JST CREST/Hokkaido Univ.) Akiyasu Tomoeda (JST CREST/Meiji Univ.) Shin-Ichiro Ei (Kyushu Univ.)	Jamming phenomena in collective motion of camphor boats in an annular water channel · · · · · · · · · · · · · · · · · · ·
16:	45–17:45 Talk invited by A	pplied Mathematics Section
	02-0003	On the method of semidiscretization in time for nonlinear evolutionary problems
	Marc	h 18th (Tue) Conference Room IX
09-0	00-11:30 o1-0036 Kiyohisa Tokunaga	Approximate values of a triangular double integral · · · · · · · 15
45	11-0040 Koya Sakakibara (Meiji Univ.) ‡	The dipole simulation method in a Jordan region with an analytic boundary · · · · · · · · · · · · · · · · · · ·
09-0 46	O1-0038 Guanyu Zhou (Univ. of Tokyo) [‡] Norikazu Saito (Univ. of Tokyo)	Error analysis of a finite volume scheme for the Keller–Segel system of chemotaxis · · · · · · · 15
09-0 47	D1-0041 Elliott Ginder (Hokkaido Univ.) ‡ Karel Švadlenka (Kanazawa Univ.)	The hyperbolic BMO algorithm · · · · · · · 15
09-0 48	01-0022 Khoji Ohtsuka (広島国際学院大情報) ‡	Shape optimization using GJ-integral · · · · · · 15
09-0 49	Yoshihiro Saito # (Gifu Shotoku Gakuen Univ.)	Improved Heun method for systems of stochastic differential equations
09-0	15—15:45 01-0049 Takaharu Yaguchi (Kobe Univ.) ‡ Takuya Tsuchiya (Ehime Univ.)	On well-posedness of the weak form of the finite element exterior calculus on manifolds with boundaries
09-0 51	Yoshitaka Watanabe (Kyushu Univ.) [‡] Takehiko Kinoshita (Kyoto Univ.) Mitsuhiro T. Nakao (Sasebo Nat. Coll. of Tech.)	An improvement of invertibility verifications for linear elliptic operators
09-0 52	Yoshiki Sugitani (Univ. of Tokyo) [‡] Guanyu Zhou (Univ. of Tokyo) Norikazu Saito (Univ. of Tokyo)	A unilateral open boundary value problem for the Stokes equations
09-0 53	Takiko Sasaki (Univ. of Tokyo) [‡] Norikazu Saito (Univ. of Tokyo)	Linearly implicit finite difference scheme for a nonlinear wave equation with application to approximation of the blow-up time · · · · · · 15
09-0 54	O1-0042 Shinya Uchiumi (Waseda Univ.) [‡] Masahisa Tabata (Waseda Univ.)	Behavior of characteristics finite element solutions for small time increments · · · · · · · · · · · · · · · · · · ·
		pplied Mathematics Section
09-0	Yoshitaka Watanabe (Kyushu Univ.) #	Computer-assisted stability and instability proofs for the Orr–Sommerfeld probmem