

Functional Equations

March 20th (Wed)

9:30–12:00

- 1 Tomoyuki Tanigawa (Kumamoto Univ.) * Regularly varying solutions of half-linear differential equations with retarded and advanced arguments 15
- 2 Toshiharu Kawasaki (Nihon Univ.) # On the Cauchy problem for an ordinary differential equation by using Masashi Toyoda (Tamagawa Univ.) a fixed point theorem 15
- 3 Ichiro Tsukamoto (Toyo Univ.) * On asymptotic behaviour of positive solutions of $x'' = t^{\alpha\lambda-2}x^{1+\alpha}$ ($\alpha = \lambda_0, \lambda > 0$) 12
- 4 Seiji Saito (Doshisha Univ.) # Globally uniformly asymptotic stability of solutions for difference equations 15
- 5 Katsuyuki Nishimoto * Solutions to the homogeneous Bessel equation by means of N-fractional (Descartes Press Co.) calculus operator 15
- 6 Katsuyuki Nishimoto * The solutions to the radial Schrödinger equation of the hydrogen atom (Descartes Press Co.) by means of N-fractional calculus operator 15
- 7 Ryu Sasaki (Kyoto Univ.) # Global solutions of certain second order differential equations with a Kouichi Takemura (Chuo Univ.) high degree of apparent singularity 10
- 8 Nobuki Takayama # Pfaffian systems of A -hypergeometric systems 15
(Kobe Univ./JST CREST)
- Takayuki Hibi
(Osaka Univ./JST CREST)
- Kenta Nishiyama
(Osaka Univ./JST CREST)
- 9 Hiromasa Nakayama # Gröbner basis for differential equations of the Lauricella hypergeometric (Kobe Univ./JST CREST) functions 15

14:15–16:30

- 10 Hidekazu Ito (Kanazawa Univ.) # Superintegrability of vector fields and their normal forms near equilibrium points 15
- 11 Chihiro Matsuoka (Ehime Univ.) # Global solutions created by Borel–Laplace transform of difference equations Koichi Hiraide (Ehime Univ.) associated with Hénon maps 15
- 12 Masaki Hibino (Meijo Univ.) * On the summability of divergent power series solutions for certain 1st order linear PDEs 15
- 13 Yasuaki Nijima (Chiba Univ.) # On the prolongation of 2-bounded holomorphic solutions to the first order involutive system 10
- 14 Hideshi Yamane # Long-time asymptotics for the defocusing integrable discrete nonlinear (Kwansei Gakuin Univ.) Schrödinger equation 15
- 15 Haruya Mizutani (Gakushuin Univ.) # Remarks on Strichartz estimates for Schrödinger equations with potentials superquadratic at infinity 15
- 16 Tetsutaro Shibata (Hiroshima Univ.) * Inverse bifurcation problems for diffusive logistic equation of population dynamics 15
- 17 Yutaka Kamimura # An inverse analysis of advection-diffusion 15
(Tokyo Univ. of Marine Sci. and Tech.)

16:45–17:45 Talk invited by Functional Equations Section

- Naoto Yamaoka (Osaka Pref. Univ.)[#] Oscillation constant for the halfly linear ordinary differential equations and its applications

March 21st (Thu)

9:30–12:00

- 18 Satoshi Tanaka (Okayama Univ. of Sci.)[#] Exact multiplicity of positive solutions for a class of two-point boundary value problems with one-dimensional p -Laplacian 15
- 19 Naoki Sioji (Yokohama Nat. Univ.)[#] Uniqueness of a positive radial solution for an elliptic equation $\Delta u + g(r)u + h(r)u^p = 0$ and its applications 15
Kohtaro Watanabe
(Nat. Defense Acad. of Japan)
- 20 Ryuji Kajikiya (Saga Univ.)^{*} Asymmetry of positive solutions of the Emden–Fowler equation in hollow symmetric domains 15
- 21 Ryuji Kajikiya (Saga Univ.)^{*} Multiple positive solutions of the Emden–Fowler equation in hollow symmetric domains 15
- 22 Yasuhito Miyamoto (Keio Univ.)[#] Structure of the positive solutions for supercritical elliptic equations in a ball 10
- 23 Yasuhito Miyamoto (Keio Univ.)[#] Symmetry breaking bifurcation from solutions concentrating on the equator of $\mathbb{S}^N$ 10
- 24 Yasuhito Miyamoto (Keio Univ.)[#] Monotonicity of the first eigenvalue and the global bifurcation diagram for the branch of interior peak solutions 10
Yagasaki Kazuyuki (Hiroshima Univ.)
- 25 Daisuke Naimen (Osaka City Univ.)[#] Existence of infinitely many solutions for nonlinear Neumann problems with indefinite coefficients 15
- 26 Yusuke Kotera (Osaka Univ.)[#] Hadamard variational formula for general domain perturbation 10
Takashi Suzuki (Osaka Univ.)
Takuya Tsuchiya (Ehime Univ.)
- 27 Yoichi Miyazaki (Nihon Univ.)[#] L_p regularity theorem for elliptic equations and smoothness of the domain 12

13:30–14:30 Talk invited by Functional Equations Section

- Shigeru Sakaguchi (Tohoku Univ.)[#] Isothermal surface and geometry of domain

March 22nd (Fri)

9:30–12:00

- 28 Chihiro Aida (Meiji Univ.)[#] Diffusion-induced bifurcation from infinity 15
Chao-Nien Chen
(Nat. Changhua Univ. of Edu.)
Hirokazu Ninomiya (Meiji Univ.)
- 29 Yuki Kaneko (Waseda Univ.)[#] Spreading and vanishing for free boundary problems in an ecological model 15
Yoshio Yamada (Waseda Univ.)
Kazuhiro Oeda (Waseda Univ.)
- 30 Hiroko Okochi[#] Conditions for Turing's instability concernig reaction-diffusion equations 8
(Tokyo Univ. of Pharmacy and Life Sci.)

31	Hiroko Okochi (Tokyo Univ. of Pharmacy and Life Sci.)	#	Pattern transitions of solutions concerning reaction-diffusion equations	8
32	Yoshifumi Mimura (Tokyo Univ. of Sci.)	#	The variational formulation of the fully parabolic Keller–Segel system with degenerate diffusion	15
33	Sachiko Ishida (Tokyo Univ. of Sci.) Tomomi Yokota (Tokyo Univ. of Sci.)	#	Local-in-time existence and blow-up of solutions to quasilinear degenerate parabolic-parabolic Keller–Segel systems	15
34	Noriko Mizoguchi (Tokyo Gakugei Univ./JST PRESTO) Michael Winkler (Univ. Paderborn)	*	Finite-time blowup in the two-dimensional parabolic Keller–Segel system	15
35	Takashi Suzuki (Osaka Univ.) Yoshio Yamada (Waseda Univ.)	#	Global-in-time behavior of Lotka–Volterra systems	10
36	Norisuke Ioku (Ehime Univ.)	#	On the best constant for the Hardy inequality in the limiting case with scale invariance	12
37	Hiroya Ito (Univ. of Electro-Comm.)	#	A generalization of the Korn inequality	15

14:15–16:15

38	Naoyuki Ichihara (Hiroshima Univ.)	*	On the criticality of viscous Hamilton–Jacobi equations	15
39	Tomoyuki Niizato (Osaka Univ.)	*	Almost global existence of solutions to the short-pulse equation	10
40	Takamori Kato (Kyoto Univ.) Kotaro Tsugawa (Nagoya Univ.)	#	Unconditional well-posedness of the fifth order KdV equation with periodic boundary condition	15
41	Nakao Hayashi (Osaka Univ.)	*	Logarithmic time decay and cubic nonlinear Schrödinger equations	10
42	Masahiro Ikeda (Osaka Univ.)	#	Lifespan of solutions for the nonlinear Schrödinger equation without gauge invariance	10
43	Toshiyuki Suzuki (Tokyo Univ. of Sci.)	#	The limiting case of nonlinear Schrödinger equations with inverse-square potentials	15
44	Hayato Miyazaki (Hiroshima Univ.)	#	The derivation of the conservation law for nonlinear Schrödinger equations of Gross–Pitaevskii type	10
45	Nobu Kishimoto (Kyoto Univ.)	#	Well-posedness for the cubic nonlinear Schrödinger equation on two-dimensional torus	15

16:30–17:30 Talk invited by Functional Equations Section

Yoshiyuki Kagei (Kyushu Univ.)	#	Asymptotic analysis for the solution to the compressible Navier–Stokes equations
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March 23rd (Sat)

9:30–11:45

46	Hiroyuki Takamura (Future Univ.-Hakodate) Kyouhei Wakasa (Future Univ.-Hakodate)	*	An example of dissipative structure of nonlinear wave equations with quadratic terms in four space dimensions	10
47	Kazuyuki Doi (Toyama Pref. Univ.) Hideo Kubo (Hokkaido Univ.)	*	On the weighted pointwise estimates for derivatives of solutions to the wave equation	10

48	Tomonari Watanabe (Hiroshima Univ.) [#]	Global existence and decay estimates for quasilinear wave equations with nonuniform dissipative term	10
49	Itsuko Hashimoto (Kanazawa Univ./Osaka City Univ.) Heinrich Freistühler (Konstanz Univ.)	* Initial boundary value problem for scalar conservation law	10
50	Naoki Tsuge (Gifu Univ.) [#]	The motion of the gas in a nozzle —Time global existence and invariant regions—	15
51	Jan Prüss (Univ. Halle) [*] Senjo Shimizu (Shizuoka Univ.) Mathias Wilke (Univ. Halle)	On a stability of incompressible two-phase flows with phase transitions in a bounded domain: The case of non-equal densities	15
52	Tetu Makino (Yamaguchi Univ.) [*]	Spherically symmetric motions of a gaseous star	15
53	Teppei Kobayasi (Meiji Univ.) [*]	Jeffery–Hamel’s flows in the plane III	10
54	Teppei Kobayasi (Meiji Univ.) [*]	Steady Navier–Stokes equations with Poiseuille’s flow and Jeffery–Hamel’s flow	15

14:15–15:15 Talk invited by Functional Equations Section

Hiroyuki Takamura (Future Univ.-Hakodate)	[#] General theory for the Cauchy problem of single nonlinear wave equations and its optimality
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