

- Collaborative works are presented by the underlined authors. The talks with * mark are presented through document camera, while \flat marks denote presentations on whiteboards. The speakers with \star marks are professors emeriti.

Functional Equations

September 25th (Thu) Conference Room V

9:00–12:00

- 05-01-0044
1 Hiroshi Ogawara (Kumamoto Univ.) Differential transcendency of a formal Laurent series satisfying a rational linear q -difference equation 10
- 05-01-0050
2 Junya Nishiguchi (Kyoto Univ.) Stabilization of unstable steady solutions by delayed feedback control: Approach by Lambert W function 10
- 05-01-0024
3 Kazuki Hiroe (Josai Univ.) Local Fourier transform and blowing up 10
- 05-01-0019
4 Kohei Iwaki (Kyoto Univ.) On WKB theoretic transformations for Painlevé transcendents on degenerate Stokes segments 10
- 05-01-0027
5 Hiroshi Yamazawa (Shibaura Inst. of Tech.) Existence of holomorphic and singular solutions of q -analogue of Briot–Bouquet type difference-differential equations 10
- 05-01-0031
6 Hiroshi Yamazawa (Shibaura Inst. of Tech.) q -Analogue of summability of formal solutions of some linear q -difference-differential equations 10
Hidetoshi Tahara (Sophia Univ.)
- 05-01-0002
7 Tetsutaro Shibata (Hiroshima Univ.)* Asymptotic behavior of the bifurcation diagrams for semilinear problems with cubic-like nonlinearity 10
- 05-01-0059
8 Tatsuki Mori (Ryukoku Univ.) Global bifurcation structure of stationary solutions to a cell polarization model 10
Kousuke Kuto (Univ. of Electro-Comm.)
Tsuji-kawa Tohru (Univ. of Miyazaki)
Shoji Yotsutani (Ryukoku Univ.)
- 05-01-0012
9 Takasi Yamasaki (Shimane Univ.) Smith-type criterion for the asymptotic stability based on the weighted damping 10
Jitsuro Sugie (Shimane Univ.)
- 05-01-0013
10 Mitsuru Shibayama (Osaka Univ.) Variational proof of the existence of the super-eight solution in the four-body problem 10
- 05-01-0060
11 Tomoyuki Tanigawa (Kumamoto Univ.) Asymptotic behavior of positive solutions of third order Emden–Fowler differential equations 10
- 05-01-0079
12 Hiroyuki Usami (Gifu Univ.)* Applications of ordinary differential equations to hyperbolic equations 10
- 05-01-0039
13 Hiroyuki Usami (Gifu Univ.) \flat Global solution of an inverse blow-up problem 10
Yutaka Kamimura (Tokyo Univ. of Marine Sci. and Tech.)
- 05-01-0053
14 Shingo Takeuchi (Shibaura Inst. of Tech.) Complete p -elliptic integrals and computation of π_3 10
- 05-99-0001
15 Katsuyuki Nishimoto (Descartes Press Co.)* The solutions to the Laplace’s homogeneous ordinary differential equations by means of the N-fractional calculus 4

14:15–16:15

05-01-0022

- 16 Ichiro Tsukamoto (Toyo Univ.) * On an asymptotic expression of a positive solution of $x'' = t^{\alpha\lambda-2}x^{1+\alpha}$ ($\alpha = \lambda_0$, $\lambda > 0$) 10

05-01-0052

- 17 Tokinaga Namba (Univ. of Tokyo) On cell problems for Hamilton–Jacobi equations with non-coercive Hamiltonians and its application to homogenization problems 10
 Atsushi Nakayasu (Univ. of Tokyo)
 Nao Hamamuki (Waseda Univ.)

05-01-0076

- 18 Haruya Mizutani (Osaka Univ.) Strichartz estimates for non-elliptic Schrödinger equations 10
 Nikolay Tzvetkov
 (Univ. Cergy-Pontoise)

05-01-0070

- 19 Takuya Suzuki (Univ. of Tokyo) Analyticity of semigroups generated by higher order elliptic operators in spaces of bounded functions on C^1 domains 10

05-01-0051

- 20 Takanobu Hara (Tokyo Metro. Univ.) Potential estimates for elliptic equations with drift terms 10

05-01-0035

- 21 Nobuyuki Kato (Nippon Inst. of Tech.) * Uniform Hölder continuity of approximate solutions to parabolic systems 10

05-01-0008

- 22 Tatsuki Kawakami (Osaka Pref. Univ.) * When does the heat equation have a solution with a sequence of similar level sets? 10
 Shigeru Sakaguchi (Tohoku Univ.)

05-01-0046

- 23 Takayoshi Ogawa (Tohoku Univ.) * Maximal L^1 -regularity for a Cauchy problem to parabolic equations 10
 Senjo Shimizu (Shizuoka Univ.)

05-01-0040

- 24 Shuichi Jimbo (Hokkaido Univ.) * Eigenvalues of 2nd order elliptic operators in a domain with a thin tubular hole 10

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

05-02-0002

- Naoki Sioji (Yokohama Nat. Univ.) A generalized Pohozaev identity and uniqueness of positive radial solutions for an elliptic equation

September 26th (Fri) Conference Room V

9:00–12:00

05-01-0066

- 25 Motohiro Sobajima (Univ. of Salento) Weighted Calderón–Zygmund and Rellich inequalities 10
 Giorgio Metafune (Univ. of Salento)
 Chiara Spina (Univ. of Salento)

05-01-0075

- 26 Yoshifumi Mimura (Tohoku Univ.) A priori bounds of stationary solutions of two dimensional Keller–Segel system on polygonal domains 10

05-01-0047

- 27 Norisuke Ioku (Ehime Univ.) Existence, non-existence, and unconditional uniqueness for a heat equation with exponential nonlinearity in \mathbb{R}^2 10
 B. Ruf (Univ. degli studi di Milano)
 E. Terraneo
 (Univ. degli studi di Milano)

05-01-0054

- 28 Shoichi Hasegawa (Tohoku Univ.) Liouville theorem for Hénon type equation on the hyperbolic space 10

05-01-0048

- 29 Aya Ishizeki (Saitama Univ.) * Variational formulae of decomposed Möbius energy and estimates 10
 Takeyuki Nagasawa (Saitama Univ.)

05-01-0065

- 30 Kousuke Kuto Limiting structure of shrinking solutions to the stationary SKT model with large cross-diffusion 10
 (Univ. of Electro-Comm.)

05-01-0005

- 31 Yasuhito Miyamoto (Univ. of Tokyo) Intersection properties of radial solutions and global bifurcation diagrams for supercritical quasilinear elliptic equations 10

- 05-01-0041
32 Mieko Tanaka (Tokyo Univ. of Sci.) * Generalized eigenvalue problem for (p, q) -Laplacian with indefinite weight
Dumitru Motreanu (Univ. de Perpignan) 10
- 05-01-0042
33 Mieko Tanaka (Tokyo Univ. of Sci.) * Bifurcation of positive solutions for the one dimensional (p, q) -Laplace
Ryuji Kajikiya (Saga Univ.) equation 10
Satoshi Tanaka (Okayama Univ. of Sci.)
- 05-01-0069
34 Daisuke Naimen (Osaka City Univ.) On the multiple solutions of a nonlinear elliptic problem with the
Dirichlet energy 10
- 05-01-0064
35 Masato Hashizume (Osaka City Univ.) A minimization problem with a sign changing condition 10
- 05-01-0014
36 Yasuhiro Fujita (Univ. of Toyama) * Log-Sobolev inequality for locally Lipschitz continuous functions 10
- 05-01-0020
37 Atsushi Kosaka (Osaka City Univ.) Asymptotic behavior of eigenvalues to the Laplace–Beltrami operator
Yoshitsugu Kabeya (Osaka Pref. Univ.) on a spherical cap in \mathbb{S}^N 10
Tatsuki Kawakami (Osaka Pref. Univ.)
Hirokazu Ninomiya (Meiji Univ.)
- 05-01-0038
38 Soohyun Bae (Hanbat Nat. Univ.) Critical phenomena in the separation property for semilinear elliptic
Yūki Naito (Ehime Univ.) equations 10
- 05-01-0011
39 Futoshi Takahashi (Osaka City Univ.) On the location of two blow up points on an annulus for the mean field
Massimo Grossi equation 10
(Univ. di Roma “La Sapienza”)

13:15–14:15 Talk invited by Functional Equations Section

- 05-02-0003
Hideo Nakazawa ^b Scattering problems for wave equations with dissipation and related
(Nippon Medical School) topics

September 27th (Sat) Conference Room V

9:00–12:00

- 05-01-0006
40 Hiroyoshi Mitake (Hiroshima Univ.) * Analysis on the large-time behavior by the nonlinear adjoint method:
Hung V. Tran (Univ. of Chicago) obstacle problems 10
- 05-01-0007
41 Hiroyoshi Mitake (Hiroshima Univ.) * Weakly coupled systems of the infinity Laplace equations: existence,
Hung V. Tran (Univ. of Chicago) uniqueness, comparison with generalized cones 10
- 05-01-0036
42 Masashi Aiki (Tokyo Univ. of Sci.) Motion of a vortex filament in an external flow 10
Tatsuo Iguchi (Keio Univ.)
- 05-01-0003
43 Okihiro Sawada (Gifu Univ.) * On the shear flows of the Euler equations 10
- 05-01-0010
44 Tsuyoshi Yoneda (Tokyo Tech) Local ill-posedness of the Euler equations in $B_{\infty,1}^1$ 10
Gerard Misiolek (Univ. of Notre Dame)
- 05-01-0028
45 Erika Ushikoshi (Tamagawa Univ.) * Hadamard variational formula for the eigenvalue of the Stokes equations
Shuichi Jimbo (Hokkaido Univ.) with the Dirichlet boundary conditions 10
- 05-01-0025
46 Ken Abe (Nagoya Univ.) * On estimates for the Stokes flow in a space of bounded functions 10
- 05-01-0045
47 Senjo Shimizu (Shizuoka Univ.) On local well-posedness of incompressible two-phase flows with phase
Shintaro Yagi (Shizuoka Univ.) transitions 10
- 05-01-0056
48 Hirokazu Saito (Waseda Univ.) Global well-posedness of a free boundary problem for the Navier–Stokes
Yoshihiro Shibata (Waseda Univ.) equations in the L_p - L_q framework 10

05-01-0067	49	<u>Takayuki Kubo</u> (Univ. of Tsukuba) Yoshihiro Shibata (Waseda Univ.)	Maximal L_p - L_q regularity of the compressible-incompressible two phase problem, without surface tension and phase transition case	10
05-01-0068	50	<u>Takayuki Kubo</u> (Univ. of Tsukuba) Yoshihiro Shibata (Waseda Univ.)	Local and global well-posedness of the compressible-incompressible two phase problem, without surface tension and phase transition case	10
05-01-0081	51	<u>Miho Murata</u> (Waseda Univ.) Yoshihiro Shibata (Waseda Univ.)	On the global well-posedness for a compressible viscous fluid flow	10
05-01-0077	52	Yasunori Maekawa (Tohoku Univ.)	Large time asymptotics for two-dimensional exterior flows with small circulation at infinity	10
05-01-0087	53	<u>Toshiaki Hishida</u> (Nagoya Univ.) ^b Maria Schonbek (Univ. California, Santa Cruz)	Stability of time-dependent Navier–Stokes flow and algebraic energy decay	10
14:15–16:15				
05-01-0029	54	Itsuko Hashimoto (Toyama Nat. Coll. of Tech.)	Asymptotic stability of rarefaction wave of radially symmetric solutions for Burgers equation in several space dimensions	10
05-01-0082	55	<u>Shouta Enomoto</u> (Kyushu Univ.) Yoshiyuki Kagei (Kyushu Univ.)	On linearized stability of stationary solutions to the compressible Navier–Stokes equation in a periodic layer	10
05-01-0083	56	<u>Naofumi Mori</u> (Kyushu Univ.) Shuichi Kawashima (Kyushu Univ.)	Decay property for the Timoshenko system with thermal effects: Cattaneo versus Fourier’s law	10
05-01-0084	57	Naofumi Mori (Kyushu Univ.)	Global existence and energy decay of solutions of the nonlinear Timoshenko system with memory	10
05-01-0032	58	<u>Kentarou Fujie</u> (Tokyo Univ. of Sci.) Michael Winkler (Univ. Paderborn) Tomomi Yokota (Tokyo Univ. of Sci.)	Blow-up prevention by logistic sources in a parabolic-elliptic Keller–Segel system with singular sensitivity	10
05-01-0033	59	Kentarou Fujie (Tokyo Univ. of Sci.)	Boundedness in a fully parabolic chemotaxis system with singular sensitivity	10
05-01-0058	60	Sachiko Ishida (Tokyo Univ. of Sci.)	Global existence for a 2D quasilinear chemotaxis-Navier–Stokes system with rotation	10
05-01-0004	61	Masanari Miura (Kyushu Univ.) Yoshie Sugiyama (Kyushu Univ.)	On uniqueness theorem on weak solutions to the parabolic-parabolic Keller–Segel system of degenerate and singular types	10
05-01-0015	62	Noriko Mizoguchi (Tokyo Gakugei Univ.)	A new proof to finite-time blowup in the parabolic-parabolic Keller–Segel system	10
05-01-0016	63	<u>Noriko Mizoguchi</u> (Tokyo Gakugei Univ.) Philippe Laurençot (Univ. de Toulouse/CNRS)	Finite-time blowup for the parabolic-parabolic Keller–Segel system with critical diffusion	10
16:30–17:30 Talk invited by Functional Equations Section				
05-02-0001		Kotaro Tsugawa (Nagoya Univ.)	Local well-posedness for fifth-order nonlinear dispersive equations	

September 28th (Sun) Conference Room V

9:00–12:00

05-01-0017	64	Takashi Kagaya (Hokkaido Univ.)	A local existence on a free boundary problem for quasilinear parabolic equation	10
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- 05-01-0034
65 Kurumi Hiruko (Tohoku Univ.) A dynamical aspect of hybrid system describing intermittent androgen suppression therapy of prostate cancer 10
- 05-01-0049
66 Motohiro Sobajima (Univ. of Salento) Existence of solutions to heat equations with singular lower order terms
Noboru Okazawa (Tokyo Univ. of Sci.) 10
Tomomi Yokota (Tokyo Univ. of Sci.)
- 05-01-0086
67 Junichi Harada (Akita Univ.)* Blow-up set for a parabolic system equation 8
- 05-01-0023
68 Tomoro Asai (Univ. of Tokyo)* On self-similar solutions to the surface diffusion flow equations with
Yoshikazu Giga (Univ. of Tokyo) contact angle boundary conditions 10
- 05-01-0021
69 Masashi Mizuno (Nihon Univ.)* A singular limit problem of the Allen–Cahn equation with Neumann
Yoshihiro Tonegawa (Hokkaido Univ.) boundary conditions 10
- 05-01-0018
70 Keisuke Matsuya (Univ. of Tokyo)^b Existence of blow-up solutions for a discrete semilinear heat equation
Tetsuji Tokihiro (Univ. of Tokyo) 10
- 05-01-0043
71 Hiroshi Matsuzawa * Spreading speed and sharp asymptotic profiles of solutions in free
(Numazu Nat. Coll. of Tech.) boundary problems for nonlinear diffusion equations 10
Yihong Du (Univ. of New England)
Maolin Zhou (Univ. of Tokyo)
- 05-01-0055
72 Jin Takahashi (Tokyo Tech) Solutions with time-dependent singularities for a semilinear heat equa-
Eiji Yanagida (Tokyo Tech) tion with absorption 10
- 05-01-0085
73 Masakazu Yamamoto (Hiroaki Univ.) Asymptotic expansion of solutions to the drift-diffusion equation with
Yuusuke Sugiyama critical dissipation 10
(Tokyo Univ. of Sci.)
Keiichi Kato (Tokyo Univ. of Sci.)
- 05-01-0057
74 Kazushige Nakagawa * Global behavior of solutions to degenerate drift diffusion system in
(Fukushima Univ.) between two critical exponents 10
Takayoshi Ogawa (Tohoku Univ.)
Atsushi Kimijima (Tohoku Univ.)
- 05-01-0088
75 Masaki Kurokiba ^b Two dimensional drift-diffusion system in a critical weighted space ... 10
(Muroran Inst. of Tech.)
- 05-01-0071
76 Masaharu Taniguchi (Okayama Univ.) Convex compact sets in \mathbb{R}^{N-1} give traveling fronts of cooperation-
diffusion systems in \mathbb{R}^N 10
- 05-01-0026
77 Takashi Suzuki (Osaka Univ.)^b Compactness of 2D normalized Ricci flow orbit —an analytic proof of
Hamilton’s theorem— 10
- 14:15–16:15**
- 05-01-0030
78 Mamoru Okamoto (Shinshu Univ.) Remarks on ill-posedness of the Cauchy problem for the Chern–Simons–
Shuji Machihara (Saitama Univ.) Dirac system in one dimension 10
- 05-01-0074
79 Nobu Kishimoto (Kyoto Univ.) Normal form reduction for the unconditional uniqueness of periodic
nonlinear dispersive equations 10
- 05-01-0080
80 Hironobu Sasaki (Chiba Univ.)* Remark on the scattering operator for the cubic nonlinear Dirac equa-
tion in three space dimensions 10
- 05-01-0061
81 Takahisa Inui (Kyoto Univ.) Remark on the lifespan of solutions and non-existence of local solution
Masahiro Ikeda (Kyoto Univ.) for a nonlinear Schrödinger equation 10
- 05-01-0078
82 Kota Uriya (Tohoku Univ.)* Final state problem for a system of nonlinear Schrödinger equations
with three wave interaction 10

05-01-0062

83 Makoto Nakamura (Yamagata Univ.)* On the Cauchy problem for nonlinear Schrödinger equations in de Sitter spacetime 10

05-01-0037

84 Yuta Wakasugi (Osaka Univ.)* Critical exponent for the Cauchy problem to the weakly coupled damped
Kenji Nishihara (Waseda Univ.) wave system 10

05-01-0072

85 Hironari Miyoshi (Waseda Univ.) Convergence of hydrodynamical limits for generalized Carleman models
Masayoshi Tsutsumi (Waseda Univ.) 10

05-01-0063

86 Kyouhei Wakasa (Hokkaido Univ.)* The lifespan of solutions to nonlinear wave equations with weighted functions in 1D 10

05-01-0073

87 Koichi Taniguchi (Chuo Univ.)* Scattering problem for semilinear wave equation with a potential in an
Tsukasa Iwabuchi (Chuo Univ.) exterior domain 10
Tokio Matsuyama (Chuo Univ.)

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

05-02-0004

Shinya Okabe (Tohoku Univ.)^b A fourth order parabolic obstacle problem