- Collaborative works are presented by the underlined authors. The talks with ∗ mark are presented through document camera, while ♭ marks denote presentations on whiteboards. The speakers with ⋆ 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 $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0050
2   Junya Nishiguchi (Kyoto Univ.)   Stabilization of unstable steady solutions by delayed feedback control: Approach by Lambert W function $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0024
3   Kazuki Hiroe   (Josai Univ.)   Local Fourier transform and blowing up $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0019
4   Kohei Iwaki   (Kyoto Univ.)   On WKB theoretic transformations for Painlevé transcendents on degenerate Stokes segments $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 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 $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0031
6   <u>Hiroshi Yamazawa</u>
        (Shibaura Inst. of Tech.)
    Hidetoshi Tahara (Sophia Univ.) q-Analogue of summability of formal solutions of some linear q-difference-differential equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0002
7   Tetsutaro Shibata (Hiroshima Univ.) ∗   Asymptotic behavior of the bifurcation diagrams for semilinear problems with cubic-like nonlinearity $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0059
8   <u>Tatsuki Mori</u> (Ryukoku Univ.)
    Kousuke Kuto
        (Univ. of Electro-Comm.)
    Tsujikawa Tohru (Univ. of Miyazaki)
    Shoji Yotsutani (Ryukoku Univ.)   Global bifurcation structure of stationary solutions to a cell polarization model $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0012
9   <u>Takasi Yamasaki</u> (Shimane Univ.)
    Jitsuro Sugie   (Shimane Univ.)   Smith-type criterion for the asymptotic stability based on the weighted damping $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0013
10   Mitsuru Shibayama (Osaka Univ.)   Variational proof of the existence of the super-eight solution in the four-body problem $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0060
11   Tomoyuki Tanigawa (Kumamoto Univ.)   Asymptotic behavior of positive solutions of third order Emden–Fowler differential equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0079
12   Hiroyuki Usami   (Gifu Univ.) ∗   Applications of ordinary differential equations to hyperbolic equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0039
13   <u>Hiroyuki Usami</u>   (Gifu Univ.) ♭   Global solution of an inverse blow-up problem $\cdots\cdots\cdots\cdots\cdots\cdots$ 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 $\cdots\cdots\cdots\cdots\cdots$ 10

05-99-0001
15   Katsuyuki Nishimoto   ⋆   The solutions to the Laplace's homogeneous ordinary differential equations by means of the N-fractional calculus $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 4
        (Descartes Press Co.)

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

05-01-0076
18 <u>Haruya Mizutani</u> (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 <u>Tatsuki Kawakami</u> (Osaka Pref. Univ.) * When does the heat equation have a solution with a sequence of similar
    Shigeru Sakaguchi (Tohoku Univ.) level sets? · 10

05-01-0046
23 <u>Takayoshi Ogawa</u> (Tohoku Univ.) * Maximal L^1-regularity for a Cauchy problem to parabolic equations
    Senjo Shimizu (Shizuoka Univ.) · 10

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 <u>Motohiro Sobajima</u> (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 <u>Norisuke Ioku</u>   (Ehime Univ.) Existence, non-existence, and unconditional uniqueness for a heat equa-
    B. Ruf (Univ. degli studi di Milano) tion with exponential nonlinearity in $\mathbb{R}^2$ · 10
    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 <u>Aya Ishizeki</u>   (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
           (Univ. of Electro-Comm.) with large cross-diffusion · 10

05-01-0005
31 Yasuhito Miyamoto (Univ. of Tokyo) Intersection properties of radial solutions and global bifurcation dia-
    grams for supercritical quasilinear elliptic equations · · · · · · · · · · · · · · · 10

3   Functional Equations

05-01-0041
32   <u>Mieko Tanaka</u> (Tokyo Univ. of Sci.) *   Generalized eigenvalue problem for (p,q)-Laplacian with indefinite weight
       Dumitru Motreanu
              (Univ. de Perpignan) $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0042
33   <u>Mieko Tanaka</u> (Tokyo Univ. of Sci.) *   Bifurcation of positive solutions for the one dimensional (p,q)-Laplace
       Ryuji Kajikiya   (Saga Univ.)   equation $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 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 $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0064
35   Masato Hashizume (Osaka City Univ.)   A minimization problem with a sign changing condition $\cdots\cdots\cdots\cdots$ 10

05-01-0014
36   Yasuhiro Fujita (Univ. of Toyama) *   Log-Sobolev inequality for locally Lipschitz continuous functions $\cdots\cdots$ 10

05-01-0020
37   <u>Atsushi Kosaka</u> (Osaka City Univ.)   Asymptotic behavior of eigenvalues to the Laplace–Beltrami operator
       Yoshitsugu Kabeya (Osaka Pref. Univ.)   on a spherical cap in $\mathbb{S}^N$ $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 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
       <u>Yūki Naito</u>   (Ehime Univ.)   equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0011
39   <u>Futoshi Takahashi</u> (Osaka City Univ.)   On the location of two blow up points on an annulus for the mean field
       Massimo Grossi   equation $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
         (Univ. di Roma "La Sapienza")

13:15–14:15   Talk invited by Functional Equations Section
05-02-0003
       Hideo Nakazawa $\flat$ 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   <u>Hiroyoshi Mitake</u> (Hiroshima Univ.) *   Analysis on the large-time behavior by the nonlinear adjoint method:
       Hung V. Tran (Univ. of Chicago)   obstacle problems $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0007
41   <u>Hiroyoshi Mitake</u> (Hiroshima Univ.) *   Weakly coupled systems of the infinity Laplace equations: existence,
       Hung V. Tran (Univ. of Chicago)   uniqueness, comparison with generalized cones $\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0036
42   <u>Masashi Aiki</u> (Tokyo Univ. of Sci.)   Motion of a vortex filament in an external flow $\cdots\cdots\cdots\cdots\cdots\cdots$ 10
       Tatsuo Iguchi   (Keio Univ.)

05-01-0003
43   Okihiro Sawada   (Gifu Univ.) *   On the shear flows of the Euler equations $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0010
44   <u>Tsuyoshi Yoneda</u> (Tokyo Tech)   Local ill-posedness of the Euler equations in $B^1_{\infty,1}$ $\cdots\cdots\cdots\cdots\cdots$ 10
       Gerard Misiolek (Univ. of Notre Dame)

05-01-0028
45   <u>Erika Ushikoshi</u> (Tamagawa Univ.) *   Hadamard variational formula for the eigenvalue of the Stokes equations
       Shuichi Jimbo (Hokkaido Univ.)   with the Dirichlet boundary conditions $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0025
46   Ken Abe   (Nagoya Univ.) *   On estimates for the Stokes flow in a space of bounded functions $\cdots\cdots$ 10

05-01-0045
47   Senjo Shimizu (Shizuoka Univ.)   On local well-posedness of incompressible two-phase flows with phase
       <u>Shintaro Yagi</u> (Shizuoka Univ.)   transitions $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0056
48   <u>Hirokazu Saito</u> (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 $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0067
49 Takayuki Kubo (Univ. of Tsukuba)   Maximal L_p-L_q regularity of the compressible-incompressible two phase
    Yoshihiro Shibata (Waseda Univ.)   problem, without surface tension and phase transition case $\cdots\cdots\cdots$ 10

05-01-0068
50 Takayuki Kubo (Univ. of Tsukuba)   Local and global well-posedness of the compressible-incompressible two
    Yoshihiro Shibata (Waseda Univ.)   phase problem, without surface tension and phase transition case $\cdots$ 10

05-01-0081
51 Miho Murata   (Waseda Univ.)   On the global well-posedness for a compressible viscous fluid flow $\cdots$ 10
    Yoshihiro Shibata (Waseda Univ.)

05-01-0077
52 Yasunori Maekawa (Tohoku Univ.)   Large time asymptotics for two-dimensional exterior flows with small
                                           circulation at infinity $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0087
53 Toshiaki Hishida (Nagoya Univ.)[♭]   Stability of time-dependent Navier–Stokes flow and algebraic energy
    Maria Schonbek   decay $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
        (Univ. California, Santa Cruz)

14:15–16:15
05-01-0029
54 Itsuko Hashimoto   Asymptotic stability of rarefaction wave of radially symmetric solutions
        (Toyama Nat. Coll. of Tech.)   for Burgers equation in several space dimensions $\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0082
55 Shouta Enomoto (Kyushu Univ.)   On linearized stability of stationary solutions to the compressible
    Yoshiyuki Kagei (Kyushu Univ.)   Navier–Stokes equation in a periodic layer $\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0083
56 Naofumi Mori (Kyushu Univ.)   Decay property for the Timoshenko system with thermal effects: Cat-
    Shuichi Kawashima (Kyushu Univ.)   taneo versus Fourier's law $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0084
57 Naofumi Mori (Kyushu Univ.)   Global existence and energy decay of solutions of the nonlinear Timo-
                                           shenko system with memory $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0032
58 Kentarou Fujie (Tokyo Univ. of Sci.)   Blow-up prevention by logistic sources in a parabolic-elliptic Keller–
    Michael Winkler (Univ. Paderborn)   Segel system with singular sensitivity $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
    Tomomi Yokota (Tokyo Univ. of Sci.)

05-01-0033
59 Kentarou Fujie (Tokyo Univ. of Sci.)   Boundedness in a fully parabolic chemotaxis system with singular sen-
                                           sitivity $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0058
60 Sachiko Ishida (Tokyo Univ. of Sci.)   Global existence for a 2D quasilinear chemotaxis-Navier–Stokes system
                                           with rotation $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0004
61 Masanari Miura (Kyushu Univ.)   On uniqueness theorem on weak solutions to the parabolic-parabolic
    Yoshie Sugiyama (Kyushu Univ.)   Keller–Segel system of degenerate and singular types $\cdots\cdots\cdots\cdots$ 10

05-01-0015
62 Noriko Mizoguchi   A new proof to finite-time blowup in the parabolic-parabolic Keller–
        (Tokyo Gakugei Univ.)   Segel system $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

05-01-0016
63 Noriko Mizoguchi   Finite-time blowup for the parabolic-parabolic Keller–Segel system with
        (Tokyo Gakugei Univ.)   critical diffusion $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10
    Philippe Laurençot
        (Univ. de Toulouse/CNRS)

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 $\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots$ 10

5   Functional Equations

6   Functional Equations

16:30–17:30   Talk invited by Functional Equations Section
05-02-0004
Shinya Okabe   (Tohoku Univ.) [♭]   A fourth order parabolic obstacle problem