

函数方程式論

3月20日(水)

9:30~12:00

- 1 谷川 智 幸 (熊本大教育)* 進みと遅れの変数をもつ半分線形微分方程式の正則変動関数解について 15
Tomoyuki Tanigawa (Kumamoto Univ.)* Regularly varying solutions of half-linear differential equations with retarded and advanced arguments
- 2 川崎 敏 治 (日 大 工)# On the Cauchy problem for an ordinary differential equation by using
豊田 昌 史 (玉川大工) a fixed point theorem 15
Toshiharu Kawasaki (Nihon Univ.)# On the Cauchy problem for an ordinary differential equation by using
Masashi Toyoda (Tamagawa Univ.) a fixed point theorem
- 3 塚本 一 郎 (東洋大理工)* $x'' = t^{\alpha\lambda-2}x^{1+\alpha}$ ($\alpha = \lambda_0, \lambda > 0$) の正值解の漸近的行動について 12
Ichiro Tsukamoto (Toyo Univ.)* On asymptotic behaviour of positive solutions of $x'' = t^{\alpha\lambda-2}x^{1+\alpha}$ ($\alpha = \lambda_0, \lambda > 0$)
- 4 齋藤 誠 慈 (同志社大理工)# 逆定理の応用による差分方程式・常微分方程式の大域的一様漸近安定性 15
Seiji Saito (Doshisha Univ.)# Globally uniformly asymptotic stability of solutions for difference equations
- 5 西本 勝 之 (デカルト出版)* Solutions to the homogeneous Bessel equation by means of N-fractional
Katsuyuki Nishimoto * Solutions to the homogeneous Bessel equation by means of N-fractional
(Descartes Press Co.) calculus operator 15
- 6 西本 勝 之 (デカルト出版)* The solutions to the radial Schrödinger equation of the hydrogen atom
by means of N-fractional calculus operator 15
Katsuyuki Nishimoto * The solutions to the radial Schrödinger equation of the hydrogen atom
(Descartes Press Co.) by means of N-fractional calculus operator
- 7 佐々木 隆 (京大基礎研)# Global solutions of certain second order differential equations with a
竹村 剛 一 (中大理工) high degree of apparent singularity 10
Ryu Sasaki (Kyoto Univ.)# Global solutions of certain second order differential equations with a
Kouichi Takemura (Chuo Univ.) high degree of apparent singularity
- 8 高山 信 毅 # A-超幾何方程式系の Pfaffian 系 15
(神戸大理・JST CREST)
日比 孝 之
(阪大情報・JST CREST)
西山 絢 太
(阪大情報・JST CREST)
Nobuki Takayama # Pfaffian systems of A-hypergeometric systems
(Kobe Univ./JST CREST)
Takayuki Hibi
(Osaka Univ./JST CREST)
Kenta Nishiyama
(Osaka Univ./JST CREST)
- 9 中山 洋 将 # Lauricella 超幾何関数の満たす微分方程式系のグレブナー基底とその応用 15
(神戸大理・JST CREST)

Hiromasa Nakayama (Kobe Univ./JST CREST) # Gröbner basis for differential equations of the Lauricella hypergeometric functions

14:15~16:30

- 10 伊藤 秀一 (金沢大理) # Superintegrability of vector fields and their normal forms near equilibrium points 15
Hidekazu Ito (Kanazawa Univ.) # Superintegrability of vector fields and their normal forms near equilibrium points
- 11 松岡 千博 (愛媛大理) # Hénon 写像に付随する差分方程式の Borel–Laplace 変換によって生成される大域解 15
平出 耕一 (愛媛大理) # Global solutions created by Borel–Laplace transform of difference equations associated with Hénon maps
Chihiro Matsuoka (Ehime Univ.) #
Koichi Hiraide (Ehime Univ.) #
- 12 日比野 正樹 (名城大理工)* 或る 1 階線型偏微分方程式に対する発散冪級数解の総和可能性について 15
Masaki Hibino (Meijo Univ.)* On the summability of divergent power series solutions for certain 1st order linear PDEs
- 13 新島 靖章 (千葉大理) # On the prolongation of 2-bounded holomorphic solutions to the first order involutive system 10
Yasuaki Nijima (Chiba Univ.) # On the prolongation of 2-bounded holomorphic solutions to the first order involutive system
- 14 山根 英司 (関西学院大理工) # Long-time asymptotics for the defocusing integrable discrete nonlinear Schrödinger equation 15
Hideshi Yamane (Kwansei Gakuin Univ.) # Long-time asymptotics for the defocusing integrable discrete nonlinear Schrödinger equation
- 15 水谷 治哉 (学習院大理) # Remarks on Strichartz estimates for Schrödinger equations with potentials superquadratic at infinity 15
Haruya Mizutani (Gakushuin Univ.) # Remarks on Strichartz estimates for Schrödinger equations with potentials superquadratic at infinity
- 16 柴田 徹太郎 (広島大工)* Inverse bifurcation problems for diffusive logistic equation of population dynamics 15
Tetsutaro Shibata (Hiroshima Univ.)* Inverse bifurcation problems for diffusive logistic equation of population dynamics
- 17 上村 豊 (東京海洋大海洋) # 移流拡散の逆解析 15
Yutaka Kamimura (Tokyo Univ. of Marine Sci. and Tech.) # An inverse analysis of advection-diffusion

16:45~17:45 特別講演

山岡 直人 (阪府大工) # 半分線形微分方程式の振動定数とその応用
Naoto Yamaoka (Osaka Pref. Univ.) # Oscillation constant for the halfly linear ordinary differential equations and its applications

3月21日(木)

9:30~12:00

- 18 田中 敏 (岡山理大理) # Exact multiplicity of positive solutions for a class of two-point boundary value problems with one-dimensional p -Laplacian 15

- 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
- 19 塩路直樹 (横浜国大工)# 楕円型方程式 $\Delta u + g(r)u + h(r)u^p = 0$ の正值球対称解の一意性とその
渡辺宏太郎 (防衛大情報) 応用について 15
Naoki Sioji (Yokohama Nat. Univ.)# Uniqueness of a positive radial solution for an elliptic equation $\Delta u +$
Kohtaro Watanabe $g(r)u + h(r)u^p = 0$ and its applications
(Nat. Defense Acad. of Japan)
- 20 梶木屋龍治 (佐賀大理工)* 穴の空いた対称領域における Emden–Fowler 方程式の正值解の非対称性
..... 15
Ryuji Kajikiya (Saga Univ.)* Asymmetry of positive solutions of the Emden–Fowler equation in hol-
low symmetric domains
- 21 梶木屋龍治 (佐賀大理工)* 穴の空いた対称領域における Emden–Fowler 方程式の正值解の多重存在
..... 15
Ryuji Kajikiya (Saga Univ.)* Multiple positive solutions of the Emden–Fowler equation in hollow
symmetric domains
- 22 宮本安人 (慶大理工)# ソボレフ超臨界の非線形項を持つ楕円型方程式の正值球対称解の構造につ
いて 10
Yasuhito Miyamoto (Keio Univ.)# Structure of the positive solutions for supercritical elliptic equations in
a ball
- 23 宮本安人 (慶大理工)# S^N の赤道上に凝集する解からの対称性破壊分岐について 10
Yasuhito Miyamoto (Keio Univ.)# Symmetry breaking bifurcation from solutions concentrating on the
equator of S^N
- 24 宮本安人 (慶大理工)# 球領域における Neumann 問題の内部ピーク解の分岐図式と第 1 固有値
矢ヶ崎一幸 (広島大理) の単調性について 10
Yasuhito Miyamoto (Keio Univ.)# Monotonicity of the first eigenvalue and the global bifurcation diagram
Yagasaki Kazuyuki (Hiroshima Univ.) for the branch of interior peak solutions
- 25 内免大輔 (阪市大理)# 不定符号の係数をもつ非線形 Neumann 境界値問題の無限個解の存在に
ついて 15
Daisuke Naimen (Osaka City Univ.)# Existence of infinitely many solutions for nonlinear Neumann problems
with indefinite coefficients
- 26 小寺悠佑 (阪大基礎工)# 一般的な領域摂動による Hadamard 変分公式 10
鈴木貴 (阪大基礎工)
土屋卓也 (愛媛大理工)
Yusuke Kotera (Osaka Univ.)# Hadamard variational formula for general domain perturbation
Takashi Suzuki (Osaka Univ.)
Takuya Tsuchiya (Ehime Univ.)
- 27 宮崎洋一 (日大歯)# 楕円型方程式の L_p 正則性定理と領域の滑らかさ 12
Yoichi Miyazaki (Nihon Univ.)# L_p regularity theorem for elliptic equations and smoothness of the do-
main
- 13:30~14:30 特別講演**
坂口茂 (東北大情報)# 不変等温面と領域の幾何
Shigeru Sakaguchi (Tohoku Univ.)# Isothermal surface and geometry of domain

3月22日(金)

9:30~12:00

- 28 相田千尋 (明大先端数理) # 無限遠からの拡散誘導分岐 15
Chao-Nien Chen
(Nat. Changhua Univ. of Edu.)
二宮広和 (明大先端数理)
Chihiro Aida (Meiji Univ.) # Diffusion-induced bifurcation from infinity
Chao-Nien Chen
(Nat. Changhua Univ. of Edu.)
Hirokazu Ninomiya (Meiji Univ.)
- 29 兼子裕大 (早大理工) # 数理生態学モデルの自由境界問題に現れる Spreading と Vanishing 15
山田義雄 (早大理工)
大枝和浩 (早大理工)
Yuki Kaneko (Waseda Univ.) # Spreading and vanishing for free boundary problems in an ecological
Yoshio Yamada (Waseda Univ.) model
Kazuhiro Oeda (Waseda Univ.)
- 30 大河内広子 (東京薬大) # Conditions for Turing's instability concernig reaction-diffusion equa-
tions 8
Hiroko Okochi # Conditions for Turing's instability concernig reaction-diffusion equa-
(Tokyo Univ. of Pharmacy and Life Sci.) tions
- 31 大河内広子 (東京薬大) # Pattern transitions of solutions concerning reaction-diffusion equations
..... 8
Hiroko Okochi # Pattern transitions of solutions concerning reaction-diffusion equations
(Tokyo Univ. of Pharmacy and Life Sci.)
- 32 三村与士文 (東京理大理工) # The variational formulation of the fully parabolic Keller–Segel system
with degenerate diffusion 15
Yoshifumi Mimura (Tokyo Univ. of Sci.) # The variational formulation of the fully parabolic Keller–Segel system
with degenerate diffusion
- 33 石田祥子 (東京理大理) # 準線形退化放物・放物型 Keller–Segel 系の解の時間局所的な存在と爆発に
横田智巳 (東京理大理) ついて 15
Sachiko Ishida (Tokyo Univ. of Sci.) # Local-in-time existence and blow-up of solutions to quasilinear degen-
Tomomi Yokota (Tokyo Univ. of Sci.) erate parabolic-parabolic Keller–Segel systems
- 34 溝口紀子 * Finite-time blowup in the two-dimensional parabolic Keller–Segel sys-
(東京学大教育・JST さきがけ) tem 15
M. Winkler (Univ. Paderborn)
Noriko Mizoguchi * Finite-time blowup in the two-dimensional parabolic Keller–Segel sys-
(Tokyo Gakugei Univ./JST PRESTO) tem
Michael Winkler (Univ. Paderborn)
- 35 鈴木 貴 (阪大基礎工) # Global-in-time behavior of Lotka–Volterra systems 10
山田義雄 (早大理工)
Takashi Suzuki (Osaka Univ.) # Global-in-time behavior of Lotka–Volterra systems
Yoshio Yamada (Waseda Univ.)
- 36 猪奥倫左 (愛媛大理) # 対数項を用いない臨界 Hardy の不等式とその最良定数 12
Norisuke Ioku (Ehime Univ.) # On the best constant for the Hardy inequality in the limiting case with
scale invariance

- 37 伊東裕也(電通大)[#] Korn 不等式の一般化について 15
 Hiroya Ito (Univ. of Electro-Comm.)[#] A generalization of the Korn inequality

14:15~16:15

- 38 市原直幸(広島大工)^{*} On the criticality of viscous Hamilton–Jacobi equations 15
 Naoyuki Ichihara (Hiroshima Univ.)^{*} On the criticality of viscous Hamilton–Jacobi equations
- 39 新里智行(阪大理)^{*} Almost global existence of solutions to the short-pulse equation 10
 Tomoyuki Niizato (Osaka Univ.)^{*} Almost global existence of solutions to the short-pulse equation
- 40 加藤孝盛(京大理)[#] Unconditional well-posedness of the fifth order KdV equation with pe-
 津川光太郎(名大多元数理) periodic boundary condition 15
 Takamori Kato (Kyoto Univ.)[#] Unconditional well-posedness of the fifth order KdV equation with pe-
 Kotaro Tsugawa (Nagoya Univ.) periodic boundary condition
- 41 林仲夫(阪大理)^{*} Logarithmic time decay and cubic nonlinear Schrödinger equations ... 10
 Nakao Hayashi (Osaka Univ.)^{*} Logarithmic time decay and cubic nonlinear Schrödinger equations
- 42 池田正弘(阪大理)[#] 絶対値 p 乗の非線形項を持つシュレディンガー方程式に対する解のライ-
 フスパンについて 10
 Masahiro Ikeda (Osaka Univ.)[#] Lifespan of solutions for the nonlinear Schrödinger equation without
 gauge invariance
- 43 鈴木敏行(東京理大理)[#] The limiting case of nonlinear Schrödinger equations with inverse-square
 potentials 15
 Toshiyuki Suzuki (Tokyo Univ. of Sci.)[#] The limiting case of nonlinear Schrödinger equations with inverse-square
 potentials
- 44 宮崎隼人(広島大理)[#] The derivation of the conservation law for nonlinear Schrödinger equa-
 tions of Gross–Pitaevskii type 10
 Hayato Miyazaki (Hiroshima Univ.)[#] The derivation of the conservation law for nonlinear Schrödinger equa-
 tions of Gross–Pitaevskii type
- 45 岸本展(京大理)[#] Well-posedness for the cubic nonlinear Schrödinger equation on two-
 dimensional torus 15
 Nobu Kishimoto (Kyoto Univ.)[#] Well-posedness for the cubic nonlinear Schrödinger equation on two-
 dimensional torus

16:30~17:30 特別講演

- 隠居良行(九大数理)[#] 圧縮性 Navier–Stokes 方程式の漸近解析
 Yoshiyuki Kagei (Kyushu Univ.)[#] Asymptotic analysis for the solution to the compressible Navier–Stokes
 equations

3月23日(土)

9:30~11:45

- 46 高村博之(公立はこだて未来大)^{*} 空間 4 次元で 2 次の非線形項をもつ波動方程式に関する消散構造の一例
 若狭恭平(公立はこだて未来大) 10
 Hiroyuki Takamura^{*} An example of dissipative structure of nonlinear wave equations with
 (Future Univ.-Hakodate) quadratic terms in four space dimensions
 Kyouhei Wakasa
 (Future Univ.-Hakodate)

- 47 土井 一幸 (富山県立大工)* On the weighted pointwise estimates for derivatives of solutions to the
久保 英夫 (北大理) wave equation 10
Kazuyuki Doi (Toyama Pref. Univ.)* On the weighted pointwise estimates for derivatives of solutions to the
Hideo Kubo (Hokkaido Univ.) wave equation
- 48 渡辺 朋成 (広島大理)‡ 空間非一様な消散項を持つ非線形波動方程式の大域解の存在と減衰評価
について 10
Tomonari Watanabe (Hiroshima Univ.)‡ Global existence and decay estimates for quasilinear wave equations
with nonuniform dissipative term
- 49 橋本 伊都子 * 単独粘性保存則の初期値境界値問題について 10
(金沢大自然・阪市大数学研)
H. Freistühler (Konstanz Univ.)
Itsuko Hashimoto * Initial boundary value problem for scalar conservation law
(Kanazawa Univ./Osaka City Univ.)
Heinrich Freistühler (Konstanz Univ.)
- 50 柘植 直樹 (岐阜大教育)‡ ノズル内の気体の運動 —時間大域解の存在と不変領域— 15
Naoki Tsuge (Gifu Univ.)‡ The motion of the gas in a nozzle —Time global existence and invariant
regions—
- 51 J. Prüss (Univ. Halle)* 相転移を伴う有界領域内非圧縮性 2 相流の解の安定性 —異密度の場合—
清水 扇丈 (静岡大理) 15
M. Wilke (Univ. Halle)
Jan Prüss (Univ. Halle)* On a stability of incompressible two-phase flows with phase transitions
Senjo Shimizu (Shizuoka Univ.) in a bounded domain: The case of non-equal densities
Mathias Wilke (Univ. Halle)
- 52 牧野 哲 (山口大工)* 気体星の球対称運動 15
Tetu Makino (Yamaguchi Univ.)* Spherically symmetric motions of a gaseous star
- 53 小林 徹平 (明大理工)* Jeffery–Hamel’s flows in the plane III 10
Teppei Kobayasi (Meiji Univ.)* Jeffery–Hamel’s flows in the plane III
- 54 小林 徹平 (明大理工)* Steady Navier–Stokes equations with Poiseuille’s flow and Jeffery–Hamel’s
flow 15
Teppei Kobayasi (Meiji Univ.)* Steady Navier–Stokes equations with Poiseuille’s flow and Jeffery–Hamel’s
flow

14:15~15:15 特別講演

- 高村 博之 (公立はこだて未来大)‡ 単独非線形波動方程式の初期値問題に対する一般論とその最適性
Hiroyuki Takamura ‡ General theory for the Cauchy problem of single nonlinear wave equa-
(Future Univ.-Hakodate) tions and its optimality