The 24th Northeastern Symposium on Mathematical Analysis

Date : 20 - 21 February 2023
Venue : Kawai Hall, Graduate School of Science, Tohoku University
(at Kita-Aobayama Campus)
6-3, Aramaki Aza-Aoba, Aoba-ku,Sendai 980-8578
https://www.sci.tohoku.ac.jp/campusmap/kita-aobayama/
URL: https://www.math.sci.hokudai.ac.jp/sympo/nema/24_en.html

Program

20 February 2023

09:45 - 09:50	Opening
09:50 - 10:40	Takayoshi Ogawa (Tohoku University) Maximal L^1 regularity for parabolic equations and a free boundary problem of the Navier–Stokes equations
10:50 - 11:40	Hiroaki Kikuchi (Tsuda University) Threshold solutions for the 3D focusing cubic-quintic nonlinear Schrödinger equation
11:40 - 13:10	Lunch (90min)
13:10 - 13:40	Tatsu-Hiko Miura (Hirosaki University) Error estimate for classical solutions to the heat equation in a moving thin domain and its limit equation
13:50 - 14:20	Kotaro Hisa (Tohoku University) Initial traces and solvability for a semilinear heat equation on a half space of $\mathbb{R}^N$
14:30 - 15:00	Yusuke Ishigaki (Tokyo Institute of Technology) Asymptotic stability of stationary solutions to outflow problem for compressible viscoelastic system
15:15 - 15:35	Shuntaro Tsubouchi (The University of Tokyo, D2) Continuity of derivatives for certain very singular elliptic problems
15:35 - 15:55	Tatsuya Hosono (Tohoku University, D2) Global existence and $(8\pi)^2$-threshold of solutions to the 4D attraction-repulsion chemotaxis system
16:00 - 16:30	Poster Preview (Zoom)

16:30 - 18:30 Poster Session (Zoom)

21 February 2023

10:00 - 10:50 Hideo Kubo (Hokkaido University)
Global existence and blow-up for nonlinear wave equations with inverse-square potential

11:00 - 11:30 Alessandro Palmieri (University of Bari)
Blow-up results for a semilinear wave equation in the expanding de Sitter spacetime

11:40 - 12:10 Nobuhito Miyake (The University of Tokyo)
Eventual global positivity of solutions to Cauchy problems of polyharmonic heat equations

12:10 - 13:40 Lunch (90min)

13:40 - 14:10 Takuya Sato (Tohoku University)
The initial boundary value problem for the nonlinear Schrödinger equation with the nonlinear Neumann boundary condition in one space dimension

14:20 - 14:40 Motofumi Aoki (Tohoku University, D3)
On the relationship between the Cauchy problem and the energy conservation law for the compressible Navier–Stokes equations

14:40 - 15:00 Shun Tsuhara (Tohoku University, D2)
The boundary Strichartz estimates for the Schrödinger equation in the two-dimensional half plane and its application

15:00 - 15:20 Kiichi Tashiro (Tokyo Institute of Technology, M2)
On the construction of canonical mean curvature flow by elliptic regularization

15:30 - 15:50 Poster Award Ceremony

16:00 - 16:50 Philippe Souplet (Université Sorbonne Paris Nord)
Some recent Liouville type results and their applications (Zoom)

16:50 - 16:55 Closing

Posters

P1. Dáithí Ó hAodha (Tohoku University, D2)
Large-Time Behaviour of Solutions to the Linearised Compressible Navier-Stokes Equations

P2. Yudai Kanda (Tohoku University, M2)
Gradient inequality for a Sobolev gradient flow and its application to Gross-Pitaevskii eigenvalue problem

P3. Sho Katayama (The University of Tokyo, M2)
Thresholds for the existence of solutions to supercritical elliptic problems

P4. Shunsuke Kitamura (Tohoku University, D1)
The lifespan estimates of classical solutions of one dimensional semilinear wave equations of derivative type with characteristic weights

P5. Mizuki Kojima (Tokyo Institute of Technology, D1)
On a time-fractional doubly critical equation, and its quantitative approach to the classical counterpart

P6. Kenta Kumagai (Tokyo Institute of Technology, M2)
Regularity of extremal solutions of semilinear elliptic equations with general nonlinearities

P7. Fuya Hiroi (Tohoku University, M2)
Curve diffusion flow for planar open curves on V-shaped polygonal lines

P8. Kazuya Hirose (Hokkaido University, M2)
A dynamical approach to lower gradient estimates for viscosity solutions of Hamilton-Jacobi equations

P9. Shimpei Makida (Hokkaido University, D1)
Stability of viscosity solutions on expanding networks

P10. Hiroki Miyakawa (Tohoku University, M2)
Maximal regularity for degenerate elliptic and parabolic equations of p-Laplacian type

P11. Yoshihito Nakajima (Tohoku University, M2)
Time-fractional evolution equations and applications to degenerate parabolic equations

P12. Shozo Ogino (Tohoku University, M2)
Singular limit problem of the initial value problem to the compressible Navier-Stokes equations in the critical Besov space

P13. Yusuke Oka (The University of Tokyo, M2)
Existence of solutions for time fractional semilinear parabolic equations in Besov–Morrey spaces

P14. Akihito Ohgane (Hokkaido University, M2)
Appropriate selection of sensory input produces good swing movement

P15. Florian Salin (Tohoku University, D1)
Implicit Scheme for Fractional Nonlinear Diffusion Equation Preserving Decay of Energy

P16. Kotaro Sato (Tohoku University, D2)
On some unidirectional evolution equation arising from fracture mechanics

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Organizing Committee

Goro Akagi (Tohoku University)
Masaharu Kobayashi (Hokkaido University)
Lorenzo Cavallina (Tohoku University)