The 25th Northeastern Symposium on Mathematical Analysis

Date： 19 - 20 February 2024
Venue： Room 3-309, Faculty of Science Building #3, Hokkaido University

URL: https://www.math.sci.hokudai.ac.jp/sympo/nema/25.html
https://www.math.sci.hokudai.ac.jp/sympo/nema/25_en.html

Program

19 February 2024

09:45 - 09:50	Opening
09:50 - 10:40	Shigeru Sakaguchi (Tohoku University) Stationary isothermic surfaces with transmission conditions
10:50 - 11:40	Kimitoshi Tsutaya (Hirosaki University) Blow up of solutions of semilinear wave equations with time-dependent propagation speed and damping
11:40 - 13:10	Lunch (90min)
13:10 - 13:40	Ryo Muramatsu (Tohoku University) On the Schrödinger equation with magnetic fileds in modulation space
13:40 - 14:00	Shimpei Makida (Hokkaido University) Stability of metric viscosity solutions under Hausdorff convergence
14:10 - 14:30	Mizuki Kojima (Tokyo Institute of Technology) On solvability of a time-fractional semilinear heat equation, and its quantitative approach to the classical counterpart
14:30 - 14:50	Shunsuke Kitamura (Tohoku University) Instant blow-up of solutions of one dimensional semilinear wave equations with spatial weights
14:50 - 15:10	Zhongyang Gu (The University of Tokyo) The Helmholtz decomposition of a BMO type vector field in general unbounded domains
15:20 - 15:50	Poster Preview

16:00 - 18:00 Poster Session

Free discussion

20 February 2024

9:50 - 10:40 Hirotoshi Kuroda (Hokkaido University)
The fourth-order total variation flow in $\mathbb{R}^n$

10:50 - 11:40 Ming-Chih Lai (National Yang Ming Chiao Tung University)
Structure-preserving neural network methods for elliptic PDEs with interfaces

11:40 - 13:10 Lunch (90min)

13:10 - 13:40 Ken Furukawa (RIKEN)
Well-Posedness of One-Dimensional Drift-Diffusion Equations under Dynamic Conditions and the Fourth Boundary Condition

13:40 - 14:00 Shuli Chen (Hokkaido University/Southeast University)
Approximate peak time and its application to time-domain fluorescence diffuse optical tomography

14:10 - 14:30 Kotaro Sato (Tohoku University)
Vanishing-viscosity limit in rate-independent evolution equations with a degenerate and singular dissipation potential

14:30 - 14:50 Dáithí Ó hAodha (Tohoku University)
Large-Time Behaviour of the Curl-Free Navier-Stokes Equations

14:50 - 15:10 Dongyuan Xiao (The University of Tokyo)
Linear determinacy on the propagation phenomena of the Lotka-Volterra competition system

15:20 - 15:40 Poster Award Ceremony & Closing

Posters

P1. Tokuhiro Eto (The University of Tokyo, D3)
On a minimizing movement scheme for mean curvature flow with prescribed contact angle condition in a curved domain

P2. Kenta Kumagai (Tokyo Institute of Technology, D1)
Classification of bifurcation diagrams for semilinear elliptic equations in the critical dimension

P3. Keito Akiyama (Tohoku University, D2)
Regularizing Effect for an Optimization Problem of Mean Field Neural Network

P4. Takuma Yoshizumi (Osaka University, M1)
The blowing-up solutions of semi-linear Klein-Gordon equations

P5. Hikaru Yamaguchi (Tohoku University, M2)
Construction of ideal curve flows with certain constraints on length

P6. Ryoma Ueda (Tohoku University, M2)
Remark on the uniqueness of the mild solution of SQG equation

P7. Yoshinori Furuto (Tohoku University, M1)
End-point estimates of second derivatives for the heat equation on bounded domain

P8. Shun Tsuhara (Tohoku University, D3)
Well-posedness for the initial boundary value problem for the nonlinear Schrödinger equation in the half space

P9. Tatsuya Hosono (Tohoku University, D3)
Global existence and boundedness of solutions to the 4D chemotaxis system with indirect signal production

P10. Kosuke Shibuya (Tohoku University, M2)
Brezis–Van Schaftingen–Yung formula on bounded dmain and applications

P11. Shozo Ogino (Tohoku University, D1)
Imcompressible limit of the compressible Navier–Stokes equation in the critical Besov space

P12. Ryuki Kido (Tohoku University, M2)
The generalized combined effect for nonlinear wave equations in one space dimension

P13. Shu Takamatsu (Tohoku University, M2)
Improvement of the general theorey for one dimensional nonlinear wave equations related to the combined effect

P14. Yuki Haruyama (Tohoku University, M1)
Blow-up for one dimensional wave equations with quasilinear terms of spatial derivatives

P15. Yusuke Oka (The University of Tokyo, D1)
Quenching for axisymmetric hypersurfaces under forced mean curvature flows

P16. Haruto Tokunaga (The University of Tokyo, M2)
Preservation of log-concavity by the heat flow

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Organizing Committee

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