Critical Phenomena in Nonlinear Partial Differential Equations, Harmonic Analysis, and Functional Inequalities

–In honor of Professor Takayoshi Ogawa's sixtieth birthday–

Date: 7th (Tue) – 10th (Fri) November, 2023

Location: Exhibition hall I-A,B, Exhibition Building, Sendai International Center

Aobayama, Aoba Ward, Sendai, Miyagi 980-0856, JAPAN

http://www.aobayama.jp/access/

– Program –

7th November (Tue)

13:55 − 14:00	Opening
14:00 − 14:45	Naoyasu Kita (Kumamoto University)
	L^2-decay estimate of solutions to dissipative nonlinear Schrödinger equations without strong dissipative condition
15:00 − 15:45	Kentaro Fujie (Tohoku University)
	Self-similar solutions to a chemotaxis system with local sensing
16:00 − 16:45	Tsukasa Iwabuchi (Tohoku University)
	Dyadic decomposition of the spectrum for the Dirichlet Laplacian applied to the critical surface quasi-geostrophic equation

8th November (Wed)

10:00 − 10:45	Ting Zhang (Zhejiang University)
	Global strong solutions for the multi-dimensional compressible viscoelastic flows with general pressure law
11:00 − 11:45	Yasunori Maekawa (Kyoto University)
	Optimal rate of convergence to nondegenerate asymptotic profiles for fast diffusion
12:00 − 12:45	Satoshi Masaki (Hokkaido University)
	Global dynamics below first excited states for NLS with potential
13:00 − 15:00	Lunch Time
15:00 − 15:20	Alex Kaltenbach (Technical University of Berlin)
	Pseudo-monotone operator theory for electro-rheological fluids
15:20 − 15:40	Chunyan Huang (Central University of Finance and Economics)
	Pointwise decay of solutions to the energy critical nonlinear Schrödinger equations
15:40 − 16:00	Break Time
16:00 − 16:20	Shun Tsuhara (Tohoku University)
	The boundary Strichartz estimates for the Schrödinger equation in the half space and the nonlinear problem
16:20 − 16:40	Jie Chen (Jimei University)
	Large initial data scattering for the generalized Boussinesq equation

9th November (Thr)

10:00 − 10:45	Raphaël Danchin (Université Paris-Est - Créteil Val-de-Marne)
	A survey on partially dissipative systems and relaxation limit
	in the critical regularity setting
11:00 − 11:45	Yasushi Taniuchi (Shinshu University)
	On uniqueness of mild $L^{3,\infty}$-solutions on the whole time axis
	to the Navier-Stokes equations in unbounded domains
12:00 − 14:00	Lunch Time
14:00 − 14:20	Tatsuya Hosono (Tohoku University)
	Global existence of solutions to the 4D fully parabolic chemotaxis system
	with indirect signal production
14:20 − 14:40	Timothée Crin-Barat (Friedrich-Alexander Universität Erlangen-Nürnberg)
	Hyperbolic approximation of the Navier-Stokes-Fourier system:
	hypocoercivity and hybrid Besov spaces
15:00 − 15:45	Michinori Ishiwata (Osaka University)
	Soliton resolution conjecture for solutions of semilinear parabolic problems
	with noncompact orbits
16:00 − 16:45	Kazuhiro Ishige (The University of Tokyo)
	Eventual F-concavity by the heat flow

10th November (Fri)

10:00 − 10:45	Baoxiang Wang (Peking University/Jimei University)
	Global Cauchy problem for the complex NLKG and sinh-Gordon equations
	in super-critical spaces
11:00 − 11:45	Senjo Shimizu (Kyoto University)
	Maximal L^1-regularity and its application to free boundary problems
	of the Navier–Stokes equations
12:00 − 14:00	Lunch Time
14:00 − 14:45	Michael Růžička (Universität Freiburg)
	Convergence Analysis for Pseudomonotone Parabolic Problems
15:00 − 15:45	Yoshiyuki Kagei (Tokyo Institute of Technology)
	Eckhaus instability of the compressible Taylor vortices
16:00 − 16:45	Futoshi Takahashi (Osaka Metropolitan University)
	Sharp Hardy-Leray and related inequalities for vector fields
	with differential constraints

Organizing Committee

Jun-ichi Segata (Kyushu University)

Hiroshi Takeda (Fukuoka Institute of Technology)

Masashi Mizuno (Nihon University)

Masakazu Yamamoto (Niigata University)

Norisuke Ioku (Tohoku University)

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