Mathematical Fluid Mechanics and Related Topics

- In honor of Professor Hideo Kozono on his sixtieth birthday -

Sept 5–7, 2018

Lecture Theatre, West Lecture Bldg. 1, Tokyo Insitute of Technology,
2-12-1 Ookayama, Meguro-ku, Tokyo 152-8550, JAPAN

–Program–

September 5 (Wed.)

09:50∼10:00 Opening

10:00∼10:40 Reinhard Farwig (*Technische Universität Darmstadt*)
Global attractors for non-autonomous quasi-geostrophic equations in R^2

10:50∼11:30 Taku Yanagisawa (*Nara Woman's University*)
A geometric characterization of the spaces of harmonic L^r-vector fields over exterior domains

11:50∼12:30 Tai-Peng Tsai (*University of British Columbia*)
Global Navier-Stokes flows for non-decaying initial data with slowly decaying oscillation

12:30∼14:00 Lunch Time

14:00∼14:40 Senjo Shimizu (*Kyoto University*)
Necessary and sufficient condition on initial data for solutions in the Serrin class of the Navier-Stokes equations

14:50∼15:30 Lorenzo Brandolese (*Université Lyon 1*)
Characterization of solutions to Navier-Stokes with sharp algebraic decay

16:00∼16:40 Toshiaki Hishida (*Nagoya University*)
L^q-L^r estimate of the evolution operator arising from fluid motion past a rotating obstacle, with applications to the Navier-Stokes initial value problem

16:50∼17:30 Takayuki Kobayashi (*Osaka University*)
Stability problem for a constant equilibrium to the compressible Navier-Stokes-Korteweg system

September 6 (Thur.)

10:00∼10:40 Hi Jun Choe (*Yonsei University*)
Blow up criteria of compressible Navier-Stokes flow

10:50∼11:30 Michael Růžička (*Albert-Ludwigs-Universität Freiburg*)
On the regularity of the steady p-Stokes problem

11:50∼12:30 Horst Heck (*Bern University of Applied Sciences*)
Stability for Calderon-type inverse problems

12:30∼14:00 Lunch Time

14:00∼14:40 Takayoshi Ogawa (*Tohoku University*)
Well-posedness of the initial value problem for incompressible Navier-Stokes equations under the Lagrangian coordinate

14:50∼15:30 Dongho Chae (*Chung-Ang University*)
On the Type I blow-up for the incompressible Euler equations

16:00∼16:40 Tohru Ozawa (*Waseda University*)
Improved Hardy inequalities

19:00∼ Reception

September 7 (Fri.)

10:00∼10:40 Paolo Maremonti (*Università degli Studi della Campania Luigi Vanvitelli*)
Global existence of solutions with non-decaying initial data 2D(3D)-Navier-Stokes IBVP in half-plane(space)

10:50∼11:30 Matthias Hieber (*Technische Universität Darmstadt*)
A Journey Through the World of Periodic Solutions: From the Keller-Segel Model to Geophysical Flows

11:50∼12:30 Yoshiyuki Kagei (*Kyushu University*)
Large time behavior of solutions to the compressible Navier-Stokes equations in a cylinder under the slip boundary condition

12:30∼14:00 Lunch Time

14:00∼14:40 Helmut Abels (*Universität Regensburg*)
Well-posedness of a Navier-Stokes/mean curvature flow system

14:50∼15:30 Hyunseok Kim (*Sogang University*)
Existence and uniqueness results for weak solutions of elliptic equations with singular drifts in weak Lebesgue spaces

15:30∼ closing

Organizing Committee

Hideyuki Miura (Tokyo Institute of Technology) Takahiro Okabe (Osaka University)
Tomoyuki Suzuki (Kanagawa University) Ryo Takada (Kyushu University)
Yasushi Taniuchi (Shinshu University) Erika Ushikoshi (Yokohama National University)
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