

RIMS Workshop on
Mathematical Analysis of Viscous Incompressible Fluid

Organizers: Yasunori Maekawa (Kyoto University)
Yoshihiro Shibata (Waseda University)

Date: December 3 – 5, 2018

Venue: Room 111, Research Institute for Mathematical Sciences, Kyoto University

Program

Monday, December 3

13:20 - 14:10 Giovanni Paolo Galdi (University of Pittsburgh, USA)

On the relation between distributional and Leray-Hopf solutions to the Navier-Stokes equations

14:20 - 15:10 Mads Kyed (TU Darmstadt, Germany)

R-boundedness and time-periodic maximal regularity: Applications to two-phase flows

15:30 - 15:55 Kenji Nakamura (University of Tsukuba, Japan)

Local energy decay estimate for the hyperbolic type Stokes equations.

16:00 - 16:25 Huanyuan Li (The University of Tokyo, Japan)

Blow-up criteria for the density-dependent Navier-Stokes-Korteweg equations

16:30 - 16:55 Hiroyuki Tsurumi (Waseda University, Japan)

On the ill-posedness of the stationary Navier-Stokes equations in scaling invariant Besov spaces

Tuesday, December 4

10:00 - 10:50 Thierry Gallay (Université Grenoble Alpes, France)

Spectral stability of steady vortex columns

11:00 - 11:50 Jacob Bedrossian (University of Maryland, USA)

Vortex filaments in the 3D Navier-Stokes equations

13:40 - 14:30 Gregory Seregin (University of Oxford, UK)

Type I singularities and Liouville type theorems in theory of Navier-Stokes equations

14:40 - 15:30 Ken Abe (Osaka City University, Japan)

Liouville theorems for the Stokes equations with applications to large time estimates

15:50 - 16:40 Yutaka Terasawa (Nagoya University, Japan)

Weak solutions for a diffuse interface model for two-phase flows of incompressible fluids with different densities and nonlocal free energies

Banquet at Rakuyu Kaikan (17:30 ~)

Wednesday, December 5

10:00 - 10:50 Raphaël Danchin (Université Paris-Est Créteil, France)

The well-posedness issue for the compressible Navier-Stokes equations with discontinuous density

11:00 - 11:50 Hirokazu Saito (Tokyo University of Science, Japan)

On a compressible fluid model of Korteweg type in a maximal regularity class

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