## **RIMS Workshop on**

# Mathematical Analysis of Viscous Incompressible Fluid

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

Date: November 14 – 16, 2016 Venue: Room 110, Research Institute for Mathematical Sciences, Kyoto University

# Program

#### Monday, November 14

13:30 - 14:20 Giovanni Paolo Galdi (University of Pittsburgh)Further contributions to time-periodic Navier-Stokes flow past an obstacle

14:30 - 15:20 Matthias Hieber (TU Darmstadt) Global strong well-posedness of the primitive equations of ocean dynamics

15:30 - 16:20 Michikazu Kobayashi (Kyoto University) Turbulence in quantum hydrodynamics

16:30 - 17:00 Yuka Teramoto (Kyushu University)On the spectrum of linear artificial compressible system

#### Tuesday, November 15

- 10:00 10:50 David Gerard-Varet (Universite Paris Diderot) Stability of boundary layer flows in the 2D Navier-Stokes equations
- 11:00 11:50 Suncica Canic (University of Houston and Stanford University) Fluid-structure interaction involving incompressible, viscous fluids

13:30 - 14:20 Yasuhide Fukumoto (Kyushu University) Short-wavelength analysis of magnetorotational instability of resistive MHD flows

14:30 - 15:20 Franck Sueur (Universite de Bordeaux) Controllability of the Navier-Stokes equations with Navier slip-with-friction boundary conditions

15:30 - 16:20 Franco Flandoli (Universita di Pisa) Stochastic vector valued PDEs in fluid mechanics

### Wednesday, November 16

10:00 - 10:50 Elena Frolova (St. Petersburg State University) Free boundary problem of magnetohydrodynamics

11:00 - 11:50 Anne M Robertson (University of Pittsburgh)The role of fluid mechanics in growth, remodeling and damage in the arterial system

13:30 - 14:20 Noboru Chikami (Tohoku University)On time decay estimates in critical spaces for the compressible Navier-Stokes-Poisson system

14:30 - 15:20 Hajime Koba (Osaka University)On derivation of incompressible fluid systems with heat equation

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