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

This workshop is supported by RIMS in cooperation with Mathematics and Physics Unit "Multiscale Analysis, Modeling and Simulation", Top Global University Project, Waseda University.

