RIMS Workshop

on

Mathematical Analysis of Viscous Incompressible Fluid

Organizers Toshiaki Hishida (Nagoya University) Yoshihiro Shibata (Waseda University)

Date: November 17–19, 2014 Venue: RIMS, Kyoto University, Room No. 111

Program

Monday, November 17

- 13:30–14:30 Giovanni P. Galdi (University of Pittsburgh) Further contributions to the Navier-Stokes problem around a rotating body
- 14:40–15:40 Fumio Kikuchi (University of Tokyo) Finite element methods for nearly incompressible media
- 16:00–16:30 Yasunori Maekawa (Tohoku University) On isomorphism for the space of solenoidal vector fields and its application to the Stokes problem (I)
- Tuesday, November 18

10:00-11:00	Masahisa Tabata (Waseda University) Numerical analysis of two-fluid flow problems
11:10-12:10	Takayuki Kobayashi (Osaka University) L^2 boundedness of the solutions to the 2D Navier-Stokes equations and hyperbolic Navier-Stokes equations
13:30-14:00	Hideyuki Miura (Tokyo Institute of Technology) On isomorphism for the space of solenoidal vector fields and its applica- tion to the Stokes problem (II)
14:10-14:40	Issei Oikawa (Waseda University) A discrete gradient method for the Rayleigh-Plesset-Keller equation

15:00–15:30	Hirokazu Saito (Waseda University) On decay properties of solutions to the Stokes equations with surface tension and gravity in the half space
15:40-16:40	Vsevolod A. Solonnikov (Russian Academy of Sciences) On a free boundary problem of magnetohydrodynamics for a viscous incompressible fluid not subjected to capillary forces
Wednesday, No	vember 19
10:00-11:00	Giuseppe Da Prato (Scuola Normale Superiore – Pisa) Estimate for $P_t D$ where P_t is the transition semigroup of the Burgers equation driven by white noise
11:10-12:10	Yoshio Tsutsumi (Kyoto University) Global existence of L^2 solutions for the Zakharov equations with additive noises
13:30-14:00	Lu Xu (University of Tokyo) Asymptotic behaviors in stochastic heat equations with periodic coeffi- cients
14:10-14:40	Naofumi Mori (Kyushu University) Global existence and decay of solutions to the nonlinear Timoshenko system
15:00-15:30	Teppei Kobayashi (Meiji University) Time periodic flows of an incompressible viscous fluid in perturbed chan- nels
15:40-16:10	Norikazu Yamaguchi (University of Toyama) Finite element based level set method with various reinitialization for viscous incompressible two-phase flows
15:00-15:30 15:40-16:10	Teppei Kobayashi (Meiji University) Time periodic flows of an incompressible viscous fluid in perturbed cl nels Norikazu Yamaguchi (University of Toyama) Finite element based level set method with various reinitialization for viscous incompressible two-phase flows

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