

RIMS Workshop
on
Mathematical Analysis in Fluid and Gas Dynamics

Organizers Takayuki Kobayashi
(Osaka University)
Tohru Nakamura
(Kumamoto University)

Date : from July 5 to 7, 2017

Venue : RIMS, Kyoto University, Room No. 420

Program

Wednesday, July 5

- 14 : 00 ~ 14 : 50 Michael Ružička (University of Freiburg)
On electrorheological fluids
- 15 : 00 ~ 15 : 50 Nobu Kishimoto (Kyoto University)
Remark on global regularity for the rotating Navier-Stokes equations in a periodic domain
- 16 : 10 ~ 17 : 00 Masahito Suzuki (Nagoya Inst. Tech.)
Bifurcation analysis of an equation for gas discharge

Thursday, July 6

- 10 : 00 ~ 10 : 50 Yaguang Wang (Shanghai Jiao Tong University)
On thermal layers in compressible flows
- 11 : 00 ~ 11 : 30 Kengo Nakai (The University of Tokyo)
Direction of vorticity and a refined blow-up criterion for the Navier-Stokes equations with fractional Laplacian
- 11 : 40 ~ 12 : 10 Kai Koike (Keio University)
Wall effect on the motion of a rigid body immersed in a free molecular flow

- 14 : 00 ~ 14 : 50 Eduard Feireisl (Czech Academy of Sciences)
Measure-valued solutions for problems in fluid mechanics
- 15 : 00 ~ 15 : 50 Hirokazu Saito (Waseda University)
On a compressible fluid model of Korteweg type
- 16 : 10 ~ 17 : 00 Yoshihiro Shibata (Waseda University, Pittuburgh University)
Two phase problem for the Navier-Stokes equation

Friday, July 7

- 10 : 00 ~ 10 : 50 Paolo Antonelli (Gran Sasso Sci. Inst.)
Global existence results for finite energy weak solutions to a class
of Quantum Hydrodynamic systems
- 11 : 00 ~ 11 : 50 Itsuko Hashimoto (Kansai University, Osaka City University)
Classification of asymptotic states for radially symmetric solu-
tions of multi-dimensional Burgers equation
- 14 : 00 ~ 14 : 30 Yuka Teramoto (Kyushu University)
Bifurcation of Taylor vortex for compressible Navier-Stokes equa-
tions
- 14 : 40 ~ 15 : 30 Naoki Tsuge (Gifu University)
Global entropy solutions to the compressible Euler equations in
the isentropic nozzle flow for large data: Application of the gen-
eralized invariant regions and the modified Godunov scheme

