

The Fifth Workshop of RIMS on Mathematical Analysis in Fluid and Gas Dynamics

Organizers Shinya Nishibata (Tokyo Inst. Tech.)
Akitaka Matsumura (Osaka Univ.)

Date from July 9 to 11, 2003
Venue Room 420, RIMS, Kyoto Univ.

Programs

July 9, Wednesday

- 14 : 00 ~ 14 : 50 Shuichi Kawashima (Kyushu Univ.)
Hyperbolic balance laws and entropy
- 15 : 00 ~ 15 : 30 Masao Ogawa (Keio Univ.)
Incompressible ideal fluid motion with free boundary far from equilibrium
- 15 : 50 ~ 16 : 40 Christiaan Le Roux (University of Pretoria, Keio Univ.)
Steady solutions of the Navier-stokes equations with threshold slip boundary conditions

July 10, Thursday

- 10 : 00 ~ 10 : 50 Atusi Tani (Keio Univ.)
Topics on Free boundary problems for ideal fluids
- 11 : 00 ~ 11 : 30 Hiromichi Itou (Keio Univ.)
A boundary value problem and crack propagation in an infinite (visco)elastic strip with a semi-infinite crack
- 11 : 40 ~ 12 : 10 Norikazu Yamaguchi (Waseda Univ.)
 L^q - L^r estimates of solution to the parabolic Maxwell equations

- 13 : 40 ~ 14 : 30 Huijiang Zhao (Chinese Academy of Sciences, Waseda Univ.)
Nonlinear stability of strong rarefaction waves for compressible Navier–Stokes Equations
- 14 : 40 ~ 15 : 10 Tohru Nakamura (Tokyo Inst. Tech.)
Asymptotic behavior of spherically symmetric solutions to the compressible Navier-Stokes equations with external forces
- 15 : 30 ~ 16 : 00 Naoki Tsuge (Kyoto Univ.)
Spherically symmetric flow of the compressible Euler equations for the case including the origin
- 16 : 10 ~ 17 : 00 Shigeru Takata, Shugo Yasuda, Shingo Kosuge, and Kazuo Aoki (Kyoto Univ.)
Numerical analysis of thermal-slip and diffusion-slip flows of a binary mixture of gases

July 11, Friday

- 10 : 00 ~ 10 : 50 Yasuhide Fukumoto (Kyushu Univ.)
Curvature instability of a vortex ring
- 11 : 00 ~ 11 : 50 Masa-aki Sakagami (Kyoto Univ.)
Sonic analogue of black holes and Hawking radiation
- 13 : 30 ~ 14 : 20 Hideaki Aiso (National Aerospace Laboratory)
Machinery of numerical instability in conservative difference approximations for compressible Euler equations
- 14 : 30 ~ 15 : 20 Moustafa Abouziarov
(Nizhni-Novgorod State Univ., National Aerospace Laboratory)
A high order Godunov type method for elastic–plastic flows and some examples.
- 15 : 40 ~ 16 : 30 Takaaki Nishida (Kyoto Univ.)
Shock wave simulations by finite difference schemes