

**The sixth Japan-China Workshop on
Mathematical Topics
from Fluid Mechanics**

October 29–31, 2017

Program

**Engineering Science International Hall
(Sigma Hall) in Toyonaka Campus,
Osaka University, Osaka, Japan**

Date

October 29–31, 2017

Conference Venue

Engineering Science International Hall (Sigma Hall)
in Toyonaka Campus, Osaka University, Osaka, Japan

Organizing Committee

Takayuki Kobayashi (*Osaka University*)
Shuichi Kawashima (*Kyushu University*)
Shinya Nishibata (*Tokyo Institute of Technology*)
Yoshiyuki Kagei (*Kyushu University*)
Tatsuo Iguchi (*Keio University*)
Feimin Haung (*Chinese Academy of Sciences*)
Song Jiang (*Institute of Applied Physics and Computational Mathematics*)
Hailiang Li (*Capital Normal University*)
Changjiang Zhu (*South China University of Technology*)
Huijiang Zhao (*Wuhan University*)

Local Organizing Committee

Hajime Koba (*Osaka University*)
Kazuyuki Tsuda (*Osaka University*)

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Program

October 29 (Sunday)

- 09:55~10:00 Opening Remarks
- 10:00~10:30 Jing LI (*AMSS, Chinese Academy of Sciences*)
On the global strong solutions of the compressible Navier-Stokes equations with large data
- 10:35~11:05 Jan BŘEZINA (*Tokyo Institute of Technology*)
Measure-valued solutions to full Euler system revisited
- 11:10~11:25 Tea Break
- 11:25~11:55 Masahiro SUZUKI (*Nagoya Institute of Technology*)
Quasi-neutral limit for the Euler-Poisson system
- 12:00~12:30 Hajime Koba (*Osaka Univ.*)
On derivation of compressible fluid systems on an evolving surface
- 12:35~14:30 Lunch Time
- 14:30~15:00 Lizhi RUAN (*Central China Normal University*)
Vortex sheets of inviscid two-phase flow model
- 15:05~15:35 Tao WANG (*Wuhan Univ.*)
Nonlinear stability of relativistic vortex sheets in three-dimensional Minkowski spacetime
- 15:40~15:55 Tea Break
- 15:55~16:25 Mingying Zhong (*Guangxi Univ.*)
Spectrum Structure and Behaviors of the Vlasov-Maxwell-Boltzmann Systems
- 16:30~17:00 Yong WANG (*AMSS, Chinese Academy of Sciences*)
Effects of soft interaction on long-time dynamics of rarefied gas with non-isothermal diffuse boundary

October 30 (Monday)

- 10:00~10:30 Kazuyuki TSUDA (*Osaka Univ.*)
Time periodic problem for the compressible Navier-Stokes equation on the whole space
- 10:35~11:05 Shota ENOMOTO (*Meiji Univ.*)
Stability of space-time periodic solution to the compressible Navier-Stokes equation in an infinite layer
- 11:10~11:25 Tea Break
- 11:25~11:55 Jiang XU (*Nanjing University Of Aeronautics and Astronautics*)
Optimal time-decay estimates for the compressible Navier-Stokes equations in the critical L^p framework
- 12:00~12:30 Itsuko HASHIMOTO (*Kansai Univ. and Osaka City Univ.*)
Classification of asymptotic states for radially symmetric solutions of multi-dimensional Burgers equation
- 12:35~14:00 Lunch Time
- 14:00~14:30 Zhenhua GUO (*Northwest Univ.*)
Global Existence and Large-Time Behavior of solutions to Compressible Navier-Stokes equations
- 14:35~15:05 Abulizi AIHAITI (*Kyushu Univ.*)
Large time behavior of solutions to the compressible Navier-Stokes equations in a cylinder under the slip boundary condition
- 15:10~15:40 Lili DU (*Sichuan Univ.*)
Compressible subsonic impinging jet flows
- 15:40~16:10 Tea Break
- 16:10~16:40 Chunpeng WANG (*Jilin University*)
Smooth Subsonic-sonic Flows in General Nozzles
- 16:45~17:15 Guojing ZHANG (*North-East Normal University*)
Hydrodynamic model of semiconductors with sonic boundary conditions
- 17:25~17:55 Shuji YOSHIKAWA (*Oita Univ.*)
Asymptotic profile of solution for the Cauchy problem of beam equation with variable coefficients
- 18:00~ Banquet

October 31 (Tuesday)

- 10:00~10:30 Yasunori MAEKAWA (*Kyoto Univ.*)
Asymptotic stability of physically reasonable solutions in a two-dimensional exterior domain
- 10:35~11:05 Masatoshi OKITA (*National Institute of Technology, Kurume College*)
On expression of smooth solutions of Navier-Stokes equations
- 11:10~11:25 Tea Break
- 11:25~11:55 Chengchun HAO (*Institute of Mathematics, AMSS, Chinese Academy of Sciences*)
On the motion of free boundary problem of ideal incompressible MHD
- 12:00~12:30 Wei-Xi LI (*Wuhan University*)
Well-posedness in Gevrey function space for the Prandtl equations with non-degenerate critical points
- 12:35~14:00 Lunch Time
- 14:00~14:30 Yi Wang (*AMSS, Chinese Academy of Sciences*)
Stability of wave patterns to multi-dimensional viscous conservation laws
- 14:35~15:05 Qiangchang JU (*IAPCM*)
Singular limit of symmetric hyperbolic systems
- 15:15~15:45 Naofumi MORI (*Fukuoka Inst. of Tech.*)
Mathematical analysis for the nonlinear Timoshenko-Cattaneo system
- 15:55~ Closing Remarks