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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- JSPS Bilateral Joint Research Project/Sminars FY2017 (T. Kobayashi and F.Haung)
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- JSPS Grant-in-aid for Scientific Research, Basic Research B, No.16H03945 (S. Shimizu)
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
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>10:00</td>
<td>Kazuyuki TSUDA (Osaka Univ.)</td>
<td>Time periodic problem for the compressible Navier-Stokes equation on the whole space</td>
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<tr>
<td>10:35</td>
<td>Shota ENOMOTO (Meiji Univ.)</td>
<td>Stability of space-time periodic solution to the compressible Navier-Stokes equation in an infinite layer</td>
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<td>11:10</td>
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<td>Tea Break</td>
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<tr>
<td>11:25</td>
<td>Jiang XU (Nanjing University Of Aeronautics and Astronautics)</td>
<td>Optimal time-decay estimates for the compressible Navier-Stokes equations in the critical $L^p$ framework</td>
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<td>12:00</td>
<td>Itsuko HASHIMOTO (Kansai Univ. and Osaka City Univ.)</td>
<td>Classification of asymptotic states for radially symmetric solutions of multi-dimensional Burgers equation</td>
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<td>12:35</td>
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<td>Lunch Time</td>
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<tr>
<td>14:00</td>
<td>Zhenhua GUO (Northwest Univ.)</td>
<td>Global Existence and Large-Time Behavior of solutions to Compressible Navier-Stokes equations</td>
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<tr>
<td>14:35</td>
<td>Abulizi AIHAITI (Kyushu Univ.)</td>
<td>Large time behavior of solutions to the compressible Navier-Stokes equations in a cylinder under the slip boundary condition</td>
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<tr>
<td>15:10</td>
<td>Lili DU (Sichuan Univ.)</td>
<td>Compressible subsonic impinging jet flows</td>
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<td>Tea Break</td>
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<tr>
<td>16:10</td>
<td>Chunpeng WANG (Jilin University)</td>
<td>Smooth Subsonic-sonic Flows in General Nozzles</td>
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<td>16:45</td>
<td>Guojing ZHANG (North-East Normal University)</td>
<td>Hydrodynamic model of semiconductors with sonic boundary conditions</td>
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<tr>
<td>17:25</td>
<td>Shuji YOSHIKAWA (Oita Univ.)</td>
<td>Asymptotic profile of solution for the Cauchy problem of beam equation with variable coefficients</td>
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<td>18:00</td>
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<td>Banquet</td>
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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