

INTERNATIONAL WORKSHOP
Recent Advances in Kinetic Theory and Non-Equilibrium Fluid Dynamics
SPECIAL EVENT IN HONOR OF PROF. KAZUO AOKI'S 70TH ANNIVERSARY

Aims & Scope

The workshop aims to discuss and share the recent progress in kinetic theory and non-equilibrium fluid dynamics with a broad audience and speakers including the leading experts in the field. ([Go to website](#))

Date November 23 (Tue), 2021

Venue Hotel Kitano Plaza Rokkō-sō (All the lectures will be broadcast via Zoom)

[Launch Zoom](#) (Meeting ID: 824 8344 9449; Passcode: 828599)

Program

01:40 - 01:45(CET)/09:40 - 09:45(JST) Opening

01:45 - 02:20(CET)/09:45 - 10:20(JST) **Shih-Hsien Yu** (Academia Sinica, Taiwan)

Compressible Navier-Stokes equation with a rough data

02:20 - 02:55(CET)/10:20 - 10:55(JST) **Satoshi Taguchi** (Kyoto University, Japan)

Slip flow theory for a rarefied gas flow driven by a discontinuous wall temperature

Break (10 min)

03:05 - 03:40(CET)/11:05 - 11:40(JST) **Hai-Liang Li** (Capital Normal University, China)

Wave propagation of compressible Navier-Stokes(Euler)-Fokker-Planck equations

03:40 - 04:15(CET)/11:40 - 12:15(JST) **Kai Koike** (Tokyo Institute of Technology, Japan)

Some results on the long-time behavior of point particles in a 1D viscous compressible fluid

Break (75 min)

05:30 - 06:05(CET)/13:30 - 14:05(JST) **Kosuke Suzuki** (Shinshu University, Japan)

Asymptotic analysis of lattice Boltzmann method with moderately or steeply varying volume force

06:05 - 06:40(CET)/14:05 - 14:40(JST) **Hiroaki Yoshida** (Toyota Central R&D Labs., Japan)

Water behavior in nano-confined situation: two-dimensional droplet between graphene sheets

Break (10 min)

06:50 - 07:25(CET)/14:50 - 15:25(JST) **Tetsuro Tsuji** (Kyoto University, Japan)

Numerical analysis of a rarefied gas flow around a sphere caused by impulsive rotation

07:25 - 08:00(CET)/15:25 - 16:00(JST) **Hideyuki Mizuno** (The University of Tokyo, Japan)

Glasses are between solids and liquids

Break (20 min)

08:20 - 08:55(CET)/16:20 - 16:55(JST) **Martin Frank** (Karlsruhe Institute of Technology, Germany)

Dynamical low-rank approximation for kinetic equations

08:55 - 09:30(CET)/16:55 - 17:30(JST) **Benoît Perthame** (Sorbonne Université, France)

Bacterial movement by run and tumble: models, patterns, pathways, scales

Break (10 min)

09:40 - 10:15(CET)/17:40 - 18:15(JST) **Shigeru Takata** (Kyoto University, Japan)

Singular behavior of a macroscopic quantity near the boundary for a Lorentz model with the infinite-range potential

10:15 - 10:50(CET)/18:15 - 18:50(JST) **François Golse** (École polytechnique, France)

Stratified radiative transfer in a fluid

10:50(CET)/18:50(JST) Closing

Organizers

Masanari Hattori (Kyoto University), Satoshi Taguchi (Kyoto University),

Tetsuro Tsuji (Kyoto University), Shugo Yasuda (University of Hyogo)

Support

The Kyoto University Foundation

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