

INTERNATIONAL WORKSHOP  
**Recent Advances in Kinetic Theory and Non-Equilibrium Fluid Dynamics**  
SPECIAL EVENT FOR JAPAN-FRANCE INTEGRATED ACTION PROGRAM, PHC SAKURA

### Aims & Scope

This international workshop aims to promote academic exchange in mathematical and computational studies on kinetic theory and non-equilibrium fluid dynamics. A wide variety of topics will be presented, involving liquid, gas and plasma dynamics, complex fluids, and collective dynamics of droplets and microorganisms.

**Date** October 21 (Thu), 2021

**Venue** Online (Zoom & Gather Town)

**Registration** [Go to website](#)

### Program

09:00-09:10(CEST)/16:00-16:10(JST) Opening

09:10-09:45(CEST)/16:10-16:45(JST) **Frédérique Charles** (Sorbonne Université, Paris)  
*Mathematical and numerical study of a dusty Knudsen gas mixture*

09:45-10:20(CEST)/16:45-17:20(JST) **Masanari Hattori** (Kyoto University, Kyoto)  
*Poiseuille and thermal transpiration flows in a dense gas between two parallel plates*

Break

10:30-11:05(CEST)/17:30-18:05(JST) **Ryusuke Numata** (University of Hyogo, Kobe)  
*Gyrokinetic simulations of kinetic magnetic reconnection*

11:05-11:40(CEST)/18:05-18:40(JST) **Ariane Trescases** (CNRS, Toulouse)  
*Models for chemotaxis with local sensing*

Break

13:00-13:35(CEST)/20:00-20:35(JST) **Céline Baranger** (CEA Cesta, Bordeaux)  
*An ES-BGK model for high temperature rarefied gas flows*

13:35-14:10(CEST)/20:35-21:10(JST) **Hayato Chiba** (Tohoku University, Sendai)  
*Bifurcation of the Kuramoto model on networks*

Break

14:20-15:30(CEST)/21:20-22:30(JST) **Poster & Open Discussion at Gather Town**

15:30(CEST)/22:30(JST) Closing

### Organizers

Laurent Boudin (Sorbonne Université), Ayman Moussa (Sorbonne Université),  
Francesco Salvarani (Pôle Universitaire Léonard de Vinci & University of Pavia) [France]  
Masanari Hattori (Kyoto University), Satoshi Taguchi (Kyoto University),  
Tetsuro Tsuji (Kyoto University), Shugo Yasuda (University of Hyogo) [Japan]

### Support

Japan-France Integrated Action Program (SAKURA) Grant No. 120193219  
The Kyoto University Foundation

**Contact** Shugo Yasuda, ws-kinetic(at)googlegroups.com