

(15 March 2023)

**Agenda of the RIMS Satellite Workshop and IIS U-Tokyo Symposium
"Mathematical modelling of turbulent flows in astrophysical and geophysical
phenomena"**

15-18 March 2023 at the Kansai Seminar House

<https://www.kansai-seminarhouse.com/access/>

3/15 (Wed)

18:00 Gather at the venue

20:00--21:30 Introduction

3/16 (Thu)

9:00--12:00 Session 1 : Waves and instabilities in planets

Kumiko HORI (Kobe University)

"Jupiter's torsional oscillations triggering cloud-level variability"

Yoshi-Yuki HAYASHI (Kobe University)

"Planetary scale waves in the AFES-Venus, a general circulation model of the Venus atmosphere"

14:00--17:00 Session 2 : Turbulence theory, modelling, and numerical simulations

Raffaele MARINO (École Centrale de Lyon)

"Turbulence and intermittency enhancement driven by emerging extreme drafts in stratified flows"

Nobumitsu YOKOI (University of Tokyo)

"Non-equilibrium effects in turbulent transport and its modelling"

20:00--21:30 Free discussions

Chris A. JONES (University of Leeds)

"Low inertia reversing geodynamo models"

(remote)

3/17 (Fri)

9:00--12:00 Session 3 : Zonal flow formation and dynamos

Steven M. TOBIAS (University of Leeds)

"Direct statistical simulation of zonal jet formation"

Shin-ichi TAKEHIRO (Kyoto University))

"Zonal flows and banded structures generated by thermal convection in rapidly rotating thin spherical shells"

Youhei MASADA (Fukuoka University)

"Spherical-shell mean-field solar dynamo model based on turbulent EMF extracted from DNS"

14:00--17:00 Session 4 : Layering and pattern formation

Koki RYONO (Kyoto University)

"New numerical methods for calculating MRS statistical equilibria of two-dimensional turbulence and an attempt at their application"

Patrick H. DIAMOND (UCSD)

"The Cahn–Hilliard Navier–Stokes System -A case study in elastic turbulence"

20:00--21:30 Free discussions

3/18 (Sat)

9:00--12:00 General discussion, Closing remarks

In the afternoon

Organising committee meeting