

OIST SEMINAR

Date: March 27th, 2017 (Mon) Time: 2:00 pm – 3:00 pm Venue: D015 (Lab1, Level D) Speaker: Prof. Takeshi Matsumoto Department of physics, Kyoto University

Reversal of a large-scale flow in a randomly forced two-dimensional

turbulence in a square domain



(a) t=800

(b) t=900

(c) t=1000

Abstract:

When a turbulent flow is somehow sustained in a closed container, a large-scale coherent flow often emerges.

Moreover, in some situations, the direction of the large-scale flow changes randomly.

A numerical setting for such reversal phenomena in two-dimensional flow was proposed by Molenaar, Clercx and van Heijst (2004). We numerically study the flow due to Molenaar et al. with emphasis on modeling the typical time scale between reversals.

Contact information: Fluid Mechanics Unit Kaori Egashira: (Tel) 098-966-8683 (e-mail) e-kaori@oist.jp