Workshop on Rhythms and Waves in Neural Systems
-From Mathematics to Neuroscience-

Date: March 20 2015

Place: Room #200(Auditorium) Bldg. #4, Research Center for Advanced Science and Technology, The University of Tokyo,

Organizer: Kiyoshi Kotani (Research Center for Advanced Science and Technology, The University of Tokyo) and Hiroya Nakao (Graduate School of Information Science and Engineering, Tokyo Institute of Technology)

10:00-10:10 Opening Remarks

10:10-11:10 Bard Ermentrout #1 (Department of mathematics, University of Pittsburgh)

Graphs, dynamics, and persistent activity.

11:10-11:50 Kiyoshi Kotani (Research Center for Advanced Science and Technology, The University of Tokyo/ JST PRESTO)

Appropriate neuron model links microscopic neuronal interactions to macroscopic dynamics

Lunch

13:10-14:10 Bard Ermentrout #2 (Department of mathematics, University of Pittsburgh)

Keeping the beat : Homeostatic frequency control in coupled oscillators

14:10-14:50 Taro Toyoizumi (RIKEN Brain Science Institute)

Untangling complex neuronal dynamics by cross-embedding

Break

15:00-15:30 Kenta Simba (Graduate School of Frontier Sciences, The University of Tokyo)

Recording axonal conduction with microfabricated culture devices to study neuronal communication

15:30-16:10 Ryota Kobayashi (Principles of Informatics Research Division, National Institute of Informatics)

Effect of slow K+ current on spike generation mechanism of a neuron

16:10-16:50 Takuya Sasaki (Graduate School of Pharmaceutical Sciences, The University of Tokyo)

Large-scale recordings of neuronal ensembles in a freely moving rat

16:50-17:00 Closing Remarks