

# Workshop on cortical dynamics: from the architecture to functions

## Information

- Date: Feb 26 and 27, 2014
- Venue: [Northwing lecture room #2 \(3F\), Faculty of Science Buildg #5 \(Dept Physics\), Kyoto University](#)
- see the map in the below.
- Organizers: [Shigeru Shinomoto](#) (Kyoto University)  
[Shintaro Funahashi](#) (Kyoto University)
- Contact and registration: [Tomokatsu Onaga](#) (Dept Physics, Kyoto University)
- Participation fee for the workshop: 1,000 JPY (on your arrival)

## Workshop program

### Feb 26th (Wednesday)

10:00-12:30

- ◆ --- opening remark ---
- ◆ Shintaro Funahashi (Kyoto University) Functions of reciprocal connections between prefrontal cortex and thalamic mediodorsal nucleus in spatial working memory.
- ◆ David Hansel (CNRS) The balanced state: the standard model and beyond.
- ◆ Melodie Durnez (CNRS) TBA

12:30-14:00 lunch

14:00-15:30

- ◆ Hiroyuki Ito (Kyoto Sangyo University) What spontaneous activities tell us about the cortex? - a review from non-linear science perspective.
- ◆ Satoshi Nishida (Kyoto University) Dynamic switching of target-location signaling in activity of macaque lateral intraparietal neurons during delayed-response visual search.
- ◆ Akio Tanaka (Kyoto University) TBA

15:30-16:00 break

16:00-17:30

- ◆ Yasuhiro Mochizuki (Kyoto University) Similarity in Neuronal Firing Patterns between Animal Species.
- ◆ Andrea Benucci (RIKEN BSI) The balance between stimulus- and network-driven dynamics in the primary visual cortex.
- discussion ---

18:00- dinner

**Feb 27th (Thursday)**

09:30-12:30

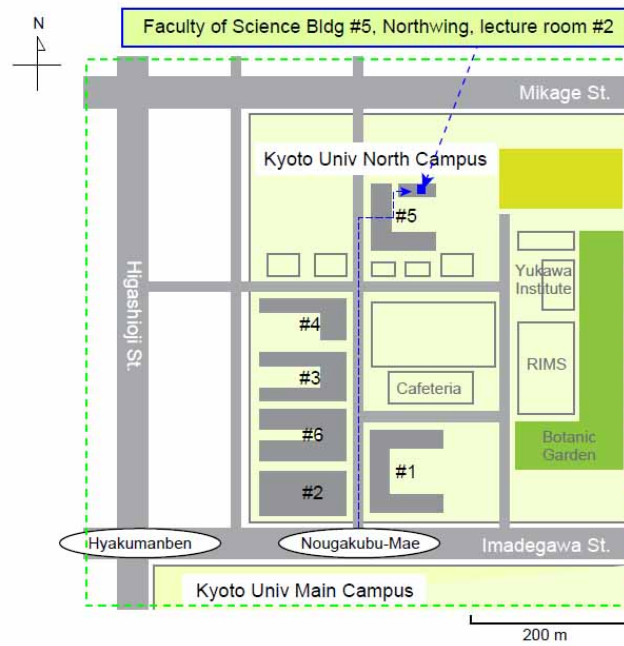
- ◆ Keiji Miura (Tohoku University) and Takaaki Aoki (Kagawa University) Hodge-Kodaira Decomposition of Evolving Neural Networks.
- ◆ Takashi Shinozaki (NICT) Weak inhibition effectively synchronizes neural population with spontaneous firing.
- ◆ Tomokatsu Onaga (Kyoto University) Bursting transition in a self-exciting point process.
- ◆ Shigeru Shinomoto (Kyoto University) and Ryota Kobayashi (National Institute of Informatics) Estimating Inputs from Neuronal Membrane Potential.
- ◆ --- Closing remark ---

12:30-

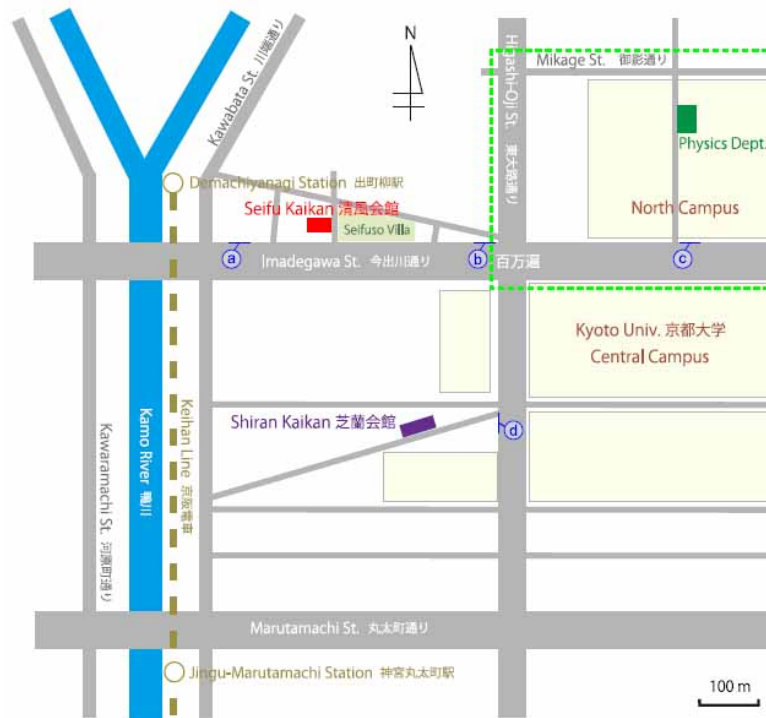
- discussion & excursion ---

.....

## Kyoto University North Campus



## Kyoto University



### Bus stops:

- a) Demachiyanaqi 出町柳
- b) Hyakumanben 百万遍
- c) Kyoudai-Nogakubumae 京大農学部前
- d) Kyoudai-Seimonmae 京大正門前