

The 2nd International Symposium on Cognitive Neuroscience Robotics

Before and Beyond Mirror Neurons

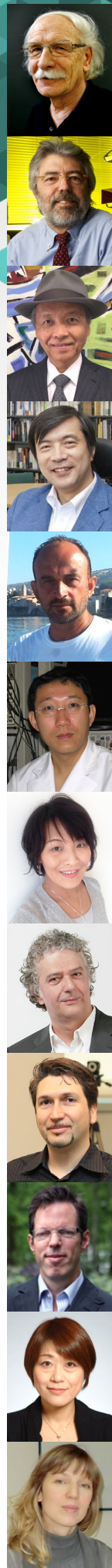
Date: Tuesday, February 23, 2016

Place: Knowledge Theater, Grand Front Osaka, Osaka, Japan

Registration: <http://www.cnr.osaka-u.ac.jp/?p=1707&lang=en>

Program

09:10-09:20	Opening Giulio Sandini (Italian Institute of Technology)
09:20-10:00	Keynote talk "Mirror Mechanism: new findings" Giacomo Rizzolatti (University of Parma)
10:00-10:20	Coffee break
10:20-10:50	"Representation of self-other equivalence acquired by self-objectification processes in the primate brain" Atsushi Iriki (RIKEN)
10:50-11:20	"Mirror mechanisms for communication" Luciano Fadiga (Italian Institute of Technology)
11:20-11:50	"Own and other's body: shared or differentiated representation in mirror neuron system" Akira Murata (Kinki University)
11:50-13:00	Lunch
13:00-13:30	"Emergence of mirror neuron system through predictive learning" Yukie Nagai (Osaka University)
13:30-14:00	"The Visual Compiler: From visual action to programs" Yiannis Aloimonos (University of Maryland)
14:00-14:30	"Action representation in F5 Mirror Neurons: A computational view" Erhan Oztop (Özyeğin University)
14:30-15:00	Coffee break
15:00-15:30	"Learningn to predict other's actions" Harold Bekkering (Radboud University Nijmegen)
15:30-16:00	"The Origins of Understanding Self and Other: Developmental and Evolutionary Perspectives" Masako Myowa-Yamakoshi (Kyoto University)
16:00-16:30	"Reading intentions in movement kinematics" Cristina Becchio (Italian Institute of Technology)
16:30-16:40	Break
16:40-18:00	Panel discussion
18:00-18:10	Closing Minoru Asada (Osaka University)
18:30-21:00	Banquet



Division of Cognitive Neuroscience Robotics
Institute for Academic Initiatives, Osaka University



JSPS Core-to-Core Program
Competitive Partnership on
Cognitive Neuroscience Robotics



Institute for
Academic Initiatives

Before and Beyond Mirror Neurons

The theme of the workshop is “mirror neurons” from the neuroscience, cognitive science and robotics perspective. Given for granted that mirror and related neurons exist and that we know how they are activated, we would like to focus the workshop on two aspects. The first (referring to the “before mirror neurons”) is how the Mirror Neuron System (MNS) develops e.g., how much it is embedded in the system at birth and how much it is learned. For example, what is the role of viewing one’s own hand while learning to reach for objects. The second is the focus on “beyond mirror neurons” e.g., what is the role of MNS in the bigger picture of human cognition, planning and anticipating actions, and in social interaction. The goal here is to go beyond individual experiments and individual robotics implementations to explain how MNS can be the basis of a cognitive architecture encompassing aspects like automatic empathy, self/other distinction, perspective taking, mentalizing?

Cognitive Neuroscience Robotics

Division of Cognitive Neuroscience Robotics, Institute for Academic Initiatives, Osaka University was founded in 2013 for further development of “Cognitive Neuroscience Robotics,” a new interdisciplinary area in which cognitive science, neuroscience, and human-oriented robotics are integrated. The foundation of the division is based on the fact that activities of Osaka University Global COE “Center of Human-friendly Robotics based on Cognitive Neuroscience” are highly evaluated. The mission of the division is to ensure the achievements of the Global COE and move Cognitive Neuroscience Robotics to the next step.

Today’s information society was induced by the development of information science. Cognitive Neuroscience Robotics has the similar possibility to make a paradigm shift in our society. We believe that we may contribute to our future society through the establishment of artifacts which are benign to the environment and humans based on the constructive approaches with real experiments rather than on the analysis-centered studies.



Access to Knowledge Theater

4-1 Ofukacho, Kita-ku, Osaka 530-0011, JAPAN

<http://kc-i.jp/en/access/>

- Approx. 7 min. on foot from JR Osaka Station (Atrium Plaza)
- Approx. 7 min. on foot from Umeda Station on the Midosuji Line (subway)
- Approx. 7 min. on foot from Umeda Station on the Hankyu Railway Line

