

# International symposium on complex systems

# Toward Sustainable Social Systems

(Phase transition - Evolution - Polysemy)

Date: Monday & Tuesday, 14-15 December, 2009 / Time: 9:30 am - 5:00 pm

Venue: Fujiwara Hiroshi Hall (Kyosei-kan) of Keio University, Hiyoshi Campus, Yokohama

Admission free. Online registration is required.

<http://www.riken.jp/engn/r-world/event/2009/keio-riken-rchc/>

## Monday, 14 December

### Science and Culture (Chair: Shigeru Watanabe)

**Yoshiharu Doi** (Executive Director, RIKEN)

**Shigeru Watanabe** (Center Director, CHC)

Opening Remarks

**Chris Wood** (Vice President, Santa Fe Institute)

Catalyzing trans-disciplinary research: Lessons from SFI's 25-year experience

**Monique van Donzel** (Nanyan Technological University)

Directions of NTU towards an Asian hub for interdisciplinary research

**Erling Norrby** (The Royal Swedish Academy of Science, Institute Para Limes)

Do the cultural conditions for making discoveries awarded with Nobel Prizes change with time?

### Culture and Evolution (Chair: Jan Vasbinder)

**Luis Bettencourt** (Los Alamos National Laboratory, CHC)

Growth, innovation, scaling, and the pace of life in cities

**Atsushi Iriki** (RIKEN Brain Science Institute, CHC)

Neuroscience of primates' intellectual evolution

**Michel Hofman** (Royal Academy of Arts and Science, Netherlands)

Human cognitive evolution

**Yuichiro Anzai** (Keio University)

Is cognition complex?

**John Holland** (University of Michigan, Santa Fe Institute)

Future directions of complex adaptive systems

## Tuesday, 15 December

### Complex System (Chair: Monique van Donzel)

**Yilong Lu** (Nanyan Technological University)

Evolutionary algorithm in natural, artificial and social systems

**Hideyuki Okano** (Keio University, CHC)

Innovative technologies on CNS regeneration and generation of neurological diseases model

**Peter van den Besselaar** (Rathenau Institute, Institute Para Limes)

Science as a complex ecosystem

**Helena Hong Gao** (Nanyan Technological University)

Linguistics as a complex adaptive system

### Sustainable Evolution (Chair: Chris Wood)

**Daan Frenkel** (University of Cambridge, Institute Para Limes)

Thermodynamics and phase transitions

**Jessika Trancik** (Omidyar Fellow, Santa Fe Institute)

Modeling the innovation dynamics of energy systems and the levers for reducing carbon emissions

**Jan Vasbinder** (President, Institute Para Limes)

Direction of IPL and intellectual interactions in Europe

**Takashi Maeno** (Keio University, CHC)

Concluding Discussions

**Toshiaki Makabe** (Executive Director, Keio University)

**Registration deadline: Friday, 11 December, 2009**

**This event will be held in English; no interpretation will be provided.**

Organizer: KEIO-RIKEN Research Centre for Human Cognition (CHC)

Co-organizers: RIKEN Brain Science Institute

Keio University Global COE Program

"Center for Advanced Research on Logic and Sensibility"

"Education and Research Center for Stem Cell Medicine"

"Organization of Education and Research of Safe, Secure and Symbiotic System Design"

Venue: Fujiwara Hiroshi Hall (Kyosei-kan) of Keio University, Hiyoshi Campus, Yokohama

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