

# Science as Method and Methodology For Problems on the Earth and Life

September 15—17, 2013

Lecture Hall at Environmental Studies Hall  
Higashiyama Campus, Nagoya University  
Nagoya, Japan

## Main Organizers

Hisashi Nakao (The Graduate University for Advanced Studies),  
Shigenori Maruyama (Tokyo Tech)

## Local Organizers

Kazuhisa Todayama (Nagoya), Rei Nouchi (Nagoya),  
Masanori Adachi (Nagoya), Fuki Ueno (Chukyo), Hidenori Suzuki (Nagoya),  
Akira Ohta (Nagoya), Yosuke Nasu (Nagoya), Ukyo Shimizu (Nagoya)

## Contact

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## Registration

Registration fee: 3,000 JPY  
Deadline: September 8, 2013  
Use the registration form linked from  
<http://sxpxs.org/activities/workshop201309en.html>

If you want to present a poster at the poster session on September 16th, please let us know by the "質問／Message" column in the registration form.

You can also reserve the following options at the registration form:

- Banquet on 15th (4,000 JPY)
- Lunch on 16th (800 JPY)
- Buffet Party on 16th (2,000 JPY).

Accommodations in the university campus are available.

The room charge is

- Single room: 3,260-4,450JPY per night per person,
- Twin room: 3,210-3,660JPY per night per person.

The exact price depends on the room, which the organization group arranges.

No breakfast is included.

This workshop is partially supported by JSPS Grant-in-Aid for Scientific Research (B) No. 23320005 (PI: Shigeyuki Aoki).

# Science as Method and Methodology For Problems on the Earth and Life

## Aim of the workshop

The development of science depends heavily on the method and methodology: Many researchers have devised new methods for problems difficult to tackle with traditional methods and have expanded methodology to validate the methods, and finally, other researchers have actually used the methods to solve the problems. The methods here include not only analytical and observational tools but also structures of the scientists like cognitive division and synthesis of labor. Moreover, the target of science is diverse: physical, biological, and social/cultural phenomena can be explored. In a sense, we can say that science itself is methods and methodologies to understand the diverse phenomena.

The aim of the workshop is to introduce and discuss the forefront, history, and philosophy of the methods and methodologies of science. How can we understand the Earth and Life? What kinds of problems have cognitive division and synthesis of labor presented and how have they been overcome? How should we understand and solve the problems developed between science and society? By discussing the methods and methodologies in a variety of ways, we will consider what science will and should be in the future.

## Program (as of August 20)

### September 15

13:00-13:15    Opening

**13:15-17:30    Method and methodology of science 1**  
Chair: Shigenori Maruyama (Tokyo Tech)

13:15-14:15    Toshikazu Ebisuzaki (RIKEN)

14:15-15:15    Shun-ichiro Karato (Yale)

15:30-16:30    Shigenori Maruyama (Tokyo Tech)

16:30-17:30    Mineo Kumazawa (Nagoya)

**18:00-        Banquet (at Dining Forest)**

## September 16

### **10:00-15:00**     **Method and methodology of science 2** Chair: Mineo Kumazawa (Nagoya)

10:00-11:00     Hisayoshi Yurimoto (Hokkaido)

11:00-12:00     Akira Hasegawa (Tohoku)

12:00-13:00     Lunch Break

13:00-14:00     Dave Yuen (Minnesota)

14:00-15:00     Jun Makino (Tokyo Tech)

### **15:15-17:45**     **History of synthesis of different disciplines** Chair: Kazuhisa Todayama (Nagoya)

15:15-16:00     Hisashi Nakao (The Graduate University for Advanced Studies)

16:00-16:45     Rei Nouchi (Nagoya)

17:00-17:45     Mariko Hasegawa (The Graduate University for Advanced Studies)

### **18:00-**     **Poster Session / Buffet Party** **(in front of the Lecture Hall at Environmental Studies Hall)**

## September 17

### **10:00-13:15**     **Philosophy and science of risks** Chair: Hisashi Nakao (The Graduate University for Advanced Studies)

10:00-10:45     Narufumi Kadomatsu (Kobe)

10:45-11:30     Kohta Juraku (Tokyo Denki)

11:45-12:30     Kazuhisa Todayama (Nagoya)

12:30-13:15     Mamoru Hayashi (Toyama)

13:15-13:30     Closing

13:30-14:30     Lunch Break

### **14:30-17:00**     **Discussion on the relevant subjects (tentative)** Any proposal of topics in advance is welcome.