

The Second RIES-Hokudai Symposium 「揺(Fluctuation)」

Research Institute for Electronic Science, Hokkaido University, Sapporo JAPAN

Venue: University Conference Hall

Thursday, 8 March

9:00-9:15 Welcome Address: **Kuon Inoue**, *Director of RIES*

Opening Remarks: **Tateo Shimosawa**, *Chair of Organizing Committee*

Session 1: Multi-disciplinary Introduction to 揺

Chairman: Koichi Kawahara (*RIES*)

9:15-9:55 **Toshiaki Iwai** (*RIES, Sapporo*)

“Multiple scattering of laser light”

9:55-10:35 **Phyllis M. Gootman** (*SUNY Downstate Med. C., USA*)

“Changes in the complexity of heart rate dynamics as a function of development”

Coffee break

Chairman: Tetsuo Ueda (*RIES*)

10:50-11:30 **Toshirou Yagi** (*RIES, Sapporo*)

“Fluctuations in solids observed by the t- and ω -domain spectroscopies”

11:30-12:10 **Masataka Kinjo** (*RIES, Sapporo*)

“Fluorescence correlation spectroscopy in cell biology”

Photos and Lunch

Session 2: 揺, Dissipation, and Structures

Chairman: Takayoshi Nakamura (*RIES*)

- 13:10-13:50 **David Williams** (*Cambridge U., UK*)
“Single-electronics”
- 13:50-14:30 **Toshio Yanagida** (*Osaka U., Osaka*)
“Single molecule nano-bioscience”
- 14:30-15:10 **Masatsugu Shimomura** (*RIES, Sapporo*)
“Mesoscopic patterning of polymers based on dissipative structures”
- Coffee break

Session 3: 揺 as a Seed of Diversity

Chairman: Takeshi Karino (*RIES*)

- 15:30-16:10 **Tetsuya Yomo** (*Osaka U., Osaka*)
“Development of genetic information”
- 16:10-16:50 **Yoshiharu Yamamoto** (*U. Tokyo, Tokyo*)
“Use of neural noise in sensitizing human brain”
- 16:50-17:30 **Keith A. Nelson** (*MIT, USA*)
“New tools for study of spatial and temporal evolution:
Spatiotemporal imaging, spatiotemporal femtosecond pulse shaping,
and spatiotemporal coherent control”
- 18:00-20:00 **Mixing Banquet** at RIES faculty room, with **Poster Presentation**

Friday, 9 March

Session 4: Trans-disciplinary Futurity with 揺

Chairman: Mamoru Tamura (*RIES*)

9:00-9:40

Rupert Krautbauer (*Ludwig-Maximilians U., GERMANY*)

“Molecular mechanics of DNA”

9:40-10:20

Elliot Elson (*Washington U., USA*)

“Fluorescence correlation spectroscopy measurement in microrheology of reconstituted model tissues”

Coffee break

Chairman: Nobuhiro Ohta (*RIES*)

10:35-11:15

Kizhakeyil L. Sebastian (*Indian Institute of Science, INDIA*)

“Activated barrier crossing by long chain molecules – A Kramers problem in infinite dimensions”

11:15-11:55

Tsuneyoshi Nakayama (*Hokkaido U., Sapporo*)

“Glasses: Dynamics at THz frequencies and below”

11:55-12:35

Toshiyuki Nakagaki (*RIES, Sapporo*)

“Maze-solving by an amoeboid organism”

Closing remarks