

# Program of QBIC Workshop 2014

Dedicated to Professor Masanori Ohya

## October 23, 2014, Thursday - Main Session (1)

- 9:55 ~ 10:00 *Opening Address*
- 10:00 ~ 10:45 T. Hida, Emeritus Professor, Nagoya University, Japan,  
*Multiplicity and dependence in white noise theory (tentative)*
- 10:45 ~ 11:30 W. Freudenberg, Brandenburg University of Technology Cottbus,  
Germany,  
*On a quantum model of the recognition process*
- 11:30 ~ 13:00 **Lunch Break and Poster Presentation**
- 13:00 ~ 13:45 Si Si, Emeritus Professor, Aichi Prefectural University, Myanmar  
*TBA*
- 13:45 ~ 14:30 R. Belavkin, Middlesex University, UK  
*Variational problems in quantum information theory*
- 14:30 ~ 14:45 **Coffee Break**
- 14:45 ~ 15:30 I. Yamato, Tokyo University of Science, Japan  
*Bioenergy transducing mechanism; a principle learnt  
from V-ATPase researches*
- 15:30 ~ 16:15 S. Miyazaki, Tokyo University of Science, Japan,  
*TBA*
- 16:15 ~ 16:30 **Coffee Break**
- 16:30 ~ 17:15 K. Sato, Tokyo University of Science, Japan  
*The code structure of the receptor binding domain of influenza A  
virus hemagglutinin*
- 17:15 ~ 18:00 T. Hara, Tokyo University of Science, Japan  
*Recent improvements in our PRNG*
- 18:30 ~ **Welcome Party** (at Cafeteria (2F) in Canal Hall)

**October 24, 2014, Friday - Main Session (2)**

- 10:00 ~ 10:45 A. Jamiolkowski, Nicolaus Copernicus University, Poland  
*On Some Effective Methods in Studies of Compound Systems*
- 10:45 ~ 11:30 L. Accardi, Roma II University, Italy  
*Quantum probability and quantum information*
- 11:30 ~ 13:30 **Lunch Break and Poster Presentation (Photo)**
- 13:30 ~ 14:30 M. Ohya, Emeritus Professor, Tokyo University of Science, Japan  
*Special Talk*
- 14:30 ~ 14:45 **Coffee Break**
- 14:45 ~ 15:30 T. Matsuoka, Suwa Tokyo University of Science,  
*Entanglement on adaptive dynamics*
- 15:30 ~ 16:15 S. Iriyama and M. Ohya, Tokyo University of Science, Japan,  
*Note on Quantum Algorithm Based on Adaptive Dynamics*
- 16:15 ~ 16:30 **Coffee Break**
- 16:30 ~ 17:15 F. Hiai, Emeritus Professor, Tohoku University, Japan  
*Sufficiency and reversibility in quantum statistics*
- 17:15 ~ 18:00 N. Watanabe, Tokyo University of Science, Japan  
*On Entropies of Compound Systems*
- 18:30 ~ **Banquet** (at Cafeteria (2F) in Canal Hall)

**October 25, 2014, Saturday - Main Session (3)**

- 10:00 ~ 10:45 A. Khrennikov, Linnaeus University, Sweden  
*On the problems of quantum measurement theory arising in its applications to biology and psychology*
- 10:45 ~ 11:30 I. Ojima, RIMS, Kyoto University, Japan  
*Local gauge invariance, and Maxwell equation in categorical QFT*
- 11:30 ~ 13:00 **Lunch Break**
- 13:00 ~ 13:45 S. Pascazio, Universita di Bari, Italy  
*Quantum typicality*
- 13:45 ~ 14:30 M. Regoli, Roma II University, Italy  
*Using homomorphic encryption techniques for the control of the minimum distance in cases of harassment with respect of the victim's privacy*
- 14:30 ~ 14:45 **Coffee Break**
- 14:45 ~ 15:30 F. Mukhamedov, International Islamic University Malaysia  
*On Kadison - Schwarz Type Operators*
- 15:30 ~ 16:15 T. Ando, RIKEN, Japan  
*Macromolecular dynamics in intracellular environment: Brownian dynamics simulation study*
- 16:15 ~ 16:30 **Coffee Break**
- 16:30 ~ 17:15 K. Kuchitsu, Tokyo University of Science, Japan  
*Regulation of development, reproduction, immunity and stress responses by the signaling networks involving reactive oxygen species, calcium ion and autophagy in plants*
- 17:15 ~ 18:00 Y. Tanaka, Tokyo University of Science, Japan  
*Non-Kolmogorov probability for information processing in unconscious inference*

## List of Poster Presentations

1. Ryusuke Ohkura, Noboru Watanabe, Tokyo University of Science, Japan  
*On construction of quantum teleportation by using quantum entangled states generated by the beam splitter*
2. Hideyuki Oki, Noboru Watanabe, Tokyo University of Science, Japan  
*On construction of FTM gate by using the coherent control states*
3. Fumito Konno, Noboru Watanabe, Tokyo University of Science, Japan  
*On construction of quantum logic gate for Ising model of triangular lattice*
4. Sho Yamauchi, Noboru Watanabe, Tokyo University of Science, Japan  
*On construction of quantum teleportation measured by four orthogonal bases*
5. Kenji Hashimoto, Shoji Yabuta, Hidetaka Kaya, Nobutaka Kitahata, Toshihide Hara, Keiko Sato and Kazuyuki Kuchitsu (Tokyo University of Science)  
*Phylogenetic analyses to explore the evolution of enzymes that produce reactive oxygen species in the plant kingdom.*