## RIMS conference

# THE RESEARCH OF GEOMETRIC STRUCTURES IN QUANTUM INFORMATION BASED ON OPERATOR THEORY AND RELATED TOPICS

Organizer: Yuki Seo (Osaka Kyoiku University)

Date: November 9-11, 2016

Place: Room 111, Research Institude for Matematical Science

Kyoto University, Kyoto 606-8502, JAPAN http://www.kurims.kyoto-u.ac.jp/en/index.html

#### November 9 (Wed)

13:00-13:30 Masaru Tominaga (Osaka Kyoiku University) Buzano inequality and its extension

13:40-14:10 Masatoshi Ito (Maebashi Institute of Technology) Estimations of power difference mean by Heron mean

14:20-14:50 Keiichi Watanabe (Niigata University) On subspaces in the Möbius gyrovector space

15:10-15:40 Il Ju An (Hankuk University of Foreign Studies), Eungil Ko (Ewha Womans University), Ji Eun Lee (Sejong University)
Complex symmetric operator matrices and their Weyl type theorems

15:50-16:20 Muneo Cho (Kanagawa University), Kotaro Tanahashi (Tohoku Medical and Pharmaceutical University), Eungil Ko (Ewha Womans University), Ji Eun Lee (Sejong University)

On a conjugation and a linear operator

16:30-17:00 Jesus M. S. Castillo (Universidad de Extremadura) Differentials of complex Interpolation Processes

# November 10 (Thu)

9:00-9:30 Yoichi Udagawa (Tokyo University of Science) Operator monotonicity of functions related to the Stolarsky mean and  $\exp\{f(x)\}\$ 

9:40-10:20 Hiroshi Nakazato (Hirosaki University) Riemann matrices for the hyperbolic curves

10:30-11:00 Huang, Peng-Ruei (Hirosaki University) Product Range of 3-by-3 Normal Matrices

11:10-11:50 Manuel Gonzalez (Universidad de Cantabria) Convolution operators on  $L_1(G)$  which are tauberian

Lunch break

- 13:00-13:40 Kichi-Suke Saito (Niigata University), Naoto Komuro (Hokkaido University of Education), Ryotaro Tanaka (Kyushu University) Geometric constants of Banach spaces and the matrix norms
- 13:50-14:30 Sungeun Jung (Hankuk University of Foreign Studies), Hyoungji Kim (Ewha Womans University), Eungil Ko (Ewha Womans University) Remarks on  $\lambda$ -commuting operators
- 14:40-15:20 Jun Ichi Fujii (Osaka Kyoiku University), Yuki Seo (Osaka Kyoiku University)

The adjoint for operator means and power ones

- 15:30-16:10 Takeaki Yamazaki (Toyo University)
  On the convexity of weighted operator means on their weight parameters
- 16:20-17:00 Frank Hansen (Tohoku University) Quantum entropy derived from first principles

## November 11(Fri)

- 9:00-9:30 Daiki Asakura (The University of Electro-Communication)
  An infinite dimensional Birhkoff's Theorem, a majorization relation for two density matrices and LOCC-convertibility
- 9:35-10:05 Enomoto Masatoshi, Watatani Yasuo (Kyushu University) Unbounded strongly irreducible operators and transitive representations of quivers on infinite-dimensional Hilbert spaces
- 10:10-10:40 Hiroshi Isa (Maebashi Institute of Technology), Masatoshi Ito(Maebashi Institute of Technology), Eizaburo Kamei, Hiroaki Tohyama(Maebashi Institute of Technology), Masayuki Watanabe(Maebashi Institute of Technology)

Velocity and acceleration at a point of the path  $A \sharp_{t,r} B$ 

- 10:50-11:20 Nagisa Masaru(Chiba University)
  Orders for a class of functions by positive definite function
- 11:30-12:00 Tanahashi Kotaro (Tohoku Medical and Pharmaceutical University), Cho Muneo (Kanagawa University), Uchiyama Atsushi(Yamagata University)

The Furuta inequality and p-wA(s,t) operator

Now, Professor Takayuki Furuta memorial ceremony will be held at the Research Institute for Mathematical Sciences No.111 rooms (13: 30-15: 30).