

# Research and Its Application of Noncommutative Structure in Operator Theory

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RIMS Workshop

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October 27 — 29, 2010

Room No.111

Research Institute for Mathematical Sciences, Kyoto University,  
Kyoto 606-8502, Japan

## PROGRAM

### 27 October (WED)

- 13 : 00~13 : 45 P. Aiena (Palermo Univ.)  
Perturbations of polaroid type operators on Banach spaces and applications
- 13 : 55~14 : 40 V. Muller (Czech Academy of Sciences)  
Orbits of operators and operator semigroups
- 14 : 50~15 : 50 Toshikazu Natsume (Nagoya Institute of Tech.)  
Trace Formulae in Operator Theory and Noncommutative Geometry I
- 16 : 00~16 : 30 R. Harte (Trinity College)  
Invariant subspaces and other animals
- 16 : 30~17 : 00 Ken-ichi Mitani (Niigata Institute of Tech.), Kichisuke Saito (Niigata Univ.), Naoto Komuro (Hokkaido Univ. of Education)  
Extreme structure of the set of absolute norms

### 28 October (THU)

- 9 : 00~9 : 30 Runling An (Taiyuan Univ. of Tech.),  
Jinchuan Hou (Taiyuan Univ. of Tech.)  
Characterizations of derivations on rings: additive maps behave like  
derivations at idempotent-product elements
- 9 : 30~10 : 00 Takeaki Yamazaki (Kanagawa Univ.)  
Riemannian mean and matrix inequalities related to chaotic order and  
Ando-Hiai inequality

- 10 : 10~10 : 55 J. Lawson (Louisiana State Univ.)  
Monotonicity and Other Axiomatic Properties of the Least Squares Mean
- 11 : 05~11 : 50 Y. Lim (Kyungpook National Univ.)  
Stopping criteria for multi-variable geometric means
- 13 : 10~13 : 55 Tsuyoshi Ando (Hokkaido Univ.)  
Non-commutative network flows
- 14 : 05~14 : 50 Il Bong Jung (Kyungpook National Univ.)  
On subnormal and completely hyperexpansive completion problems
- 15 : 00~16 : 00 Toshikazu Natsume (Nagoya Institute of Tech.)  
Trace Formulae in Operator Theory and Noncommutative Geometry II
- 16 : 10~16 : 30 Michio Seto (Shimane Univ.)  
A perturbation theory for core operators of Hilbert-Schmidt submodules
- 16 : 30~17 : 00 Takayuki Furuta (Tokyo Univ. of Science)  
Asymmetric variation of Choi inequality for positive linear map

## **29 October (FRI)**

- 9 : 00~9 : 45 M. N. N. Namboodiri (Cochin Univ.)  
Noncommutative Korovkin type theorems and noncommutative geometric formulation
- 9 : 55~10 : 40 Takashi Sano (Yamagata Univ.)  
Loewner matrices of matrix convex and monotone functions (joint work with F. Hiai)
- 10 : 50~11 : 20 Mitsuru Uchiyama (Shimane Univ.)  
A new look at Gamma function
- 11 : 30~12 : 00 Jun Ichi Fujii (Osaka Kyoiku Univ.)  
On estimations for parametrized means
- 12 : 00~12 : 20 Masaru Tominaga (Hiroshima Institute of Tech.)  
Some results on generalized quadratic operators
- 12 : 20~12 : 40 Yuki Seo (Shibaura Institute of Tech.)  
On a reverse of Cauchy-Schwarz inequalities in pre-inner product C\*-modules