

京都大学数理解析研究所・短期共同研究

## 無限次元解析と量子確率論の動向

Trends in Infinite Dimensional Analysis and Quantum Probability Theory

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期間: 2001年11月20日- 22日  
場所: 京都大学数理解析研究所(RIMS)  
研究代表者: 尾畑伸明

### プログラム

November 20  
(Tue)

- 09:55-10:00 Opening
- 10:00-10:45 Marek Bozejko (University of Wroclaw, Poland)  
Generalized white noise associated with the characters of infinite symmetric group--Hopf--Kerov deformation
- 10:50-11:35 洞 彰人 Akihito Hora (岡山大学・環境理工学部 Okayama University)  
Central limit theorem for Johnson graphs and a coherent vector in the interacting Fock space of Laguerre--Meixner type (with N. Obata)
- 11:40-12:25 吉田裕亮 Hiroaki Yoshida (お茶の水女子大学・理学部 Ochanomizu University)  
A canonical random variable for the  $q$ -deformed moments--cumulants formula
- 13:45-14:30 尾畑伸明 Nobuaki Obata (東北大学・情報科学研究科 Tohoku University)  
White noise differential equations --- Introduction and prospects
- 14:35-15:05 浅井暢宏 Nobuhiro Asai (国際高等研究所 IIAS)  
Segal-Bargmann transforms associated with non-Gaussian measures
- 15:20-15:50 村木尚文 Naofumi Muraki (岩手県立大学・総合政策学部 Iwate Prefectural University)  
On classification of universal notions of stochastic independence
- 15:55-16:40 鈴木増雄 Masuo Suzuki (東京理科大学・理学部 Science University of Tokyo)  
Thermo quantum dynamics in the thermodynamic limit ( $N \rightarrow \infty$ )

November 21  
(Wed)

- 10:00-10:45 Janusz Wysoczanski (University of Wroclaw, Poland)  
Unitary representations for twisted products of quantum groups
- 10:50-11:20 廣島文生 Fumio Hiroshima (摂南大学 Setsunan University)  
Infinitesimal generators of unitary groups induced by Bogoliubov transformations on Fock spaces
- 11:30-12:15 有光敏彦 Toshihico Arimitsu (筑波大学・物理学系)  
A system of stochastic differential equations with non-equilibrium thermo field dynamics
- 13:45-14:30 松井 卓 Taku Matsui (九州大学・数理学研究院 Kyushu University)

- Bosonic central limit theorem for quantum spin chains and the time evolution of the algebra of fluctuation
- 14:35--15:20 新井朝雄 Asao Arai (北海道大学・理学研究科 Hokkaido University)  
Operator theory associated with an algebra
- 15:25--15:55 明石重男 Shigeo Akashi (新潟大学・理学部 Niigata University)  
Operator algebraic aspects of quantum information channel spaces
- 16:10--16:55 Un Cig Ji (Chungbuk National University, Korea)  
Fock space operator valued martingale convergence
- 17:00--17:45 Habib Ouerdiane (University of Tunis El Manar, Tunisia)  
Algebras of infinite dimensional holomorphic functions and application to probability
- November 22  
(Thu)
- 10:00--10:45 Wojciech Mlotkowski (University of Wroclaw, Poland)  
 $\lambda$ -free probability
- 10:50--11:35 青本和彦 Kazuhiko Aomoto (名古屋大学・多元数理科学研究科 Nagoya University)  
LR-transforms and densities for orthogonal polynomials (joint work with Masahiko Ito)
- 11:40--12:25 齊藤公明 Kimiaki Saito (名城大学・理工学部 Meijo University)  
Infinite dimensional analysis based on the Lévy Laplacian (tentative)
- 13:45--14:30 永山國昭 Kuniaki Nagayama (岡崎国立共同研究機構・統合バイオサイエンスセンター Center for Integrative Bioscience)  
Wave functions and complex observation in electron microscopy
- 14:35--15:05 伊東由文 Yoshifumi Ito (徳島大学・総合科学部 Tokushima University)  
Variational principles and Schroedinger equations (萱間顕誠との共同)
- 15:10--15:55 平井 武 Takeshi Hirai (京都大学名誉教授 Kyoto University)  
On unitary representation of the infinite symmetric groups and of infinite classical groups over finite fields
- 15:55-16:00 Closing

参考 [過去の開催状況](#)