

**16th WORKSHOP: NON-COMMUTATIVE HARMONIC ANALYSIS,  
6–12.07.2014, Będlewo, Poland**

**Sunday, July 6**

19:00 **Dinner**

**Monday, July 7**

08:00–09:00 **Breakfast**

09:00–09:40 **Takeshi Hirai (Kyoto)**  
Spin representations of twisted central products of double covering finite groups and the case of permutation groups (joint work with Akihito Hora)

09:45–10:25 **Karol Życzkowski (Jagiellonian University, Kraków)**  
On multiplicative free square root of the Marchenko-Pastur distribution (joint work with Wojciech Młotkowski, Maciej Nowak and Karol Penson)

10:25–10:50 **Coffee break**

10:50–11:30 **Nobuaki Obata (Tohoku University)**  
Spectral Analysis of Digraphs and Coupled Oscillators with Self-Adaptive Dynamics

11:35–12:00 **Takahiro Hasebe (Hokkaido University)**  
Unimodality for freely selfdecomposable distributions

12:05–12:30 **Octavio Arizmendi (Centro de Investigación en Matemáticas)**  
Classical and Free Infinite Divisibility of Scale Mixtures of Boolean Stable Laws

12:35–13:00 **Anna Wysoczańska-Kula (University of Wrocław)**  
Lévy processes on compact quantum groups

13:00–14:00 **Lunch**

Room C 15:30–16:00

**Noriyoshi Sakuma (Aichi University of Education)**

On Marchenko-Pastur limit of random matrices with dependent entries

Room C 16:05–16:35

**Piotr Warchoł (Jagiellonian University, Kraków)**

Dysonian dynamics of the Ginibre ensemble

Room A 15:30–16:00

**Jacek Brodzki (University of Southampton)**

The local spectrum of the Dirac operator for the universal cover of  $SL(2, \mathbb{R})$

Room A 16:05–16:35

**Adam Skalski (Polish Academy of Sciences & University of Warsaw)**

Haagerup property for quantum groups and arbitrary von Neumann algebras

16:35–17:10 **Coffee and cakes**

Room C 17:10–17:40

**Jacek Grela (Jagiellonian University, Kraków)**

Diffusion of non-hermitian matrix models

Room C 17:45–18:15

**Avital Frumkin (Tel Aviv University)**

The diagonal of real symmetric matrices of given spectra as measure space and Zuber Itzykson Harish Chandra integral over the Orthogonal group

Room C 18:20–18:50

**Mykhailo Poplavskyi (University of Warwick)**

Annihilated random walks as an extended Pfaffian point process

Room A 17:10–17:40

**Franz Lehner (Technische Universität Graz)**

Combinatorics of Cumulants

Room A 17:45–18:15

**Vincel Hoang Ngoc Minh (Université Paris-Nord)**

Factorization and Renormalization

Room A 18:20–18:50

**Marie Choda (Osaka Kyoiku University)**

Operator Algebraic Shannon's Interpretation for Entropy-preserving Stochastic Averages

19:00–20:00 **Dinner**

20:00–21:00 **Baby Talk–Marius Junge**  
Stochastic integration for martingales

**Tuesday, July 8**

08:00–09:00 **Breakfast**

09:00–09:40 **Yasuyuki Kawahigashi (University of Tokyo)**  
Subfactors, tensor categories and boundary conformal field theory

09:45–10:25 **Gérard Duchamp (Université Paris-Nord)**  
Noncommutative symmetric functions, bases in duality and representations

10:25–10:50 **Coffee break**

10:50–11:30 **Piotr Sołtan (University of Warsaw)**  
A characterization of amenability of locally compact groups and quantum groups

11:35–12:00 **Yanqi Qiu (Aix-Marseille Université)**  
The spectral measure of infinite random matrices with Hua-Pickrell laws

12:05–12:30 **Søren Knudby (University of Copenhagen)**  
When do Fourier and Rajchman agree?

12:35–13:00 **Mihai Popa (University of Texas at San Antonio)**  
Asymptotic Freeness and Matrix Transpose for Wishart and Unitarily Invariant Ensembles of Random Matrices

13:00–13:10 **Picture**

13:10–14:00 **Lunch**

Room C 15:30–16:00

**Wilhelm von Waldenfels (Heidelberg)**

Measure theoretic formulation of quantum white noise

Room C 16:05–16:35

**Joachim Zacharias (University of Glasgow)**

Construction of spectral triples and quantum metric spaces

Room A 15:30–16:00

**Michaël Ulrich (Université de Franche-Comté, Besançon)**

Random Matrices and Free Lévy Processes

Room A 16:05–16:35

**Dániel Viroztek (Budapest University of Technology and Economics)**

Decomposition of matrix variances and sub-additivities of certain entropies

16:35–17:10 **Coffee and cakes**

17:10–18:10 **Poster session - Room C**

19:00 **Banquet**

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<b>Wednesday,</b>	<b>July 9</b>
08:00–09:00	<b>Breakfast</b>
09:00–09:40	<b>Stanisław Lech Woronowicz (University of Warsaw)</b> Monoidal categories of $C^*$ -algebras
09:45–10:25	<b>Marius Junge (Illinois at Urbana Champaign)</b> Riesz transforms and harmonic analysis
10:25–10:50	<b>Coffee break</b>
10:50–11:30	<b>Uwe Franz (Université de Franche-Comté, Besançon)</b> Hunt's formula for the compact quantum groups $SU_q(N)$ and $U_q(N)$ .
11:35–12:00	<b>Carlos Vargas Obieta (Universität des Saarlandes)</b> A General Solution to Eigenvalue Distributions of Hermitian Random Matrices
12:05–12:30	<b>Seung-Hyeok Kye (Seoul National University)</b> Separable states with unique decompositions and applications to construction of PPT entanglement
12:35–13:00	<b>Ion Nechita (CNRS, Université de Toulouse)</b> Positive and completely positive maps via free additive powers of probability measures
13:00–14:00	<b>Lunch</b>
14:00	<b>Excursion</b>
19:00–20:00	<b>Dinner</b>
20:00–21:00	<b>Baby Talk–Karol Penson</b> From coherent states to combinatorics and back

**Thursday, July 10**

08:00–09:00 **Breakfast**

09:00–09:40 **Robin Hudson (Loughborough University)**  
A causal quantum stochastic double product integral related to Lévy area

09:45–10:25 **Tatsuya Tate (Tohoku University)**  
Powers of certain quantum walks

10:25–10:50 **Coffee break**

10:50–11:30 **Jiun-Chau Wang (University of Saskatchewan)**  
Superconvergence to freely infinitely divisible laws

11:35–12:00 **Adam Paszkiewicz (University of Łódź)**  
On projections, quantum effects and solutions of some old problems on representations

12:05–12:30 **Janusz Wysoczański (University of Wrocław)**  
Generalisation of anyon statistics

12:35–13:00 **Michał Wojtylak (Jagiellonian University, Kraków)**  
On the Weyl function for operators, linear pencils and structured random matrices

13:00–14:00 **Lunch**

Room C 15:30–16:00

**Nobuhiro Asai (Aichi University of Education)**

The  $q$ -deformed Bargmann measures related to Class I and III of Brenke-Chihara polynomials for  $0 < q < 1$

Room C 16:05–16:35

**Rachid El Harti (University Hassan I, Settat)**

The Banach-Stone theorem for some Banach  $*$ -algebras and Applications

Room A 15:30–16:00

**Arup Bose (Indian Statistical Institute, Kolkata)**

Convergence of a class of Toeplitz type matrices

Room A 16:05–16:35

**Monika Bhattacharjee (Indian Statistical Institute, Kolkata)**

Limiting Spectral Distribution of Symmetrized Autocovariance Matrices under Infinite Dimensional Vector Linear Process and Its Application to Diagnosis the Time Series Model

16:35–17:10 **Coffee and cakes**

Room C 17:10–17:40

**Marcin Marciniak (University of Gdańsk)**

Quantum symmetries of noncommutative torus

Room C 17:45–18:15

**Zhi Yin (University of Gdańsk)**

Operator space approach to steering inequality - joint work with M. Horodecki and M. Marciniak.

Room C 18:20–18:50

**Maciej Dołęga (University of Wrocław)**

Gaussian fluctuations of anisotropic Young diagrams

Room A 17:10–17:40

**Ayan Bhattacharya (Indian Statistical Institute, Kolkata)**

Heavy-tailed random fields indexed by trees

Room A 17:45–18:15

**Kamil Szpojankowski (Warsaw University of Technology)**

The Lukacs property in free probability and related characterization

Room A 18:20–18:50

**Hayato Saigo (Nagahama Institute of Bio-Science and Technology)**

The Arcsine law and an asymptotic behavior of orthogonal polynomials

19:00

**Barbecue**

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<b>Friday,</b>	<b>July 11</b>
08:00–09:00	<b>Breakfast</b>
09:00–09:40	<b>Gero Fendler (Universität Wien)</b> On the weak*-fixed point properties of Fourier-Stieltjes algebras and of the Banach space duals of separable $C^*$ -Algebras.
09:45–10:25	<b>Un Cig Ji (Chungbuk National University)</b> Quantum White Noise Differential Equations and Applications
10:25–10:50	<b>Coffee break</b>
10:50–11:30	<b>Fumio Hiai (Tohoku University)</b> Anti-norms and superadditivity inequalities in type $II_1$ factors
11:35–12:00	<b>Andrzej Łuczak (University of Łódź)</b> On the commutativity of states in von Neumann algebras
12:05–12:30	<b>Anna Jencova (Slovak Academy of Sciences, Bratislava)</b> Quantum versions of the classical randomization criterion
12:35–13:00	<b>Biswarup Das (Polish Academy of Sciences, Warsaw)</b> Eberlein compactification of quantum groups
13:05–13:30	<b>Wiktor Ejsmont (University of Wrocław)</b> New characterization of two-state normal distribution
13:30–14:30	<b>Lunch</b>
16:35–17:10	<b>Coffee and cakes</b>
19:00–20:00	<b>Dinner</b>
20:00–21:00	<b>Problem session</b>

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<b>Saturday,</b>	<b>July 12</b>
08:00–09:00	<b>Breakfast</b>
09:00–09:40	<b>Karol Penson (Université Pierre et Marie Curie, Paris 6)</b> Combinatorial sequences in classical and free probability
09:45–10:25	<b>Izumi Ojima (Research Institute for Mathematical Sciences, Kyoto University)</b> Holonomy as geometric template in physical emergence of Macro objects
10:25–10:50	<b>Coffee break</b>
10:50–11:30	<b>Jurij Kryakin (University of Wrocław)</b> On the exact constant in the Jackson–Stechkin inequality for the uniform metric. The talk is based on the joint works with A.Babenko, A. Shadrin, S.Foucart and P.Staszak
11:35–12:00	<b>Mateusz Wasilewski (Warsaw University)</b> Amalgamated direct sums of operator spaces
12:00	<b>Lunch</b>