QUANTUM PROBABILITY BANACH CENTER PUBLICATIONS, VOLUME 73 INSTITUTE OF MATHEMATICS POLISH ACADEMY OF SCIENCES WARSZAWA 2006

## PREFACE

This volume collects the papers presented at the 25th QP Conference on Quantum Probability and Related Topics, held in Będlewo, Poland, June 20–26, 2004. All the papers were subjected to the refereeing procedure. Almost 100 mathematicians and physical mathematicians participated in the Conference, presenting lectures relating to the following main topics:

- 1. Free probability, random matrices and relations to other deformed models of probability;
- 2. Non-commutative martingale theory and applications to operator spaces;
- 3. Quantum groups and connections with models of quantum probability;
- 4. Quantum white noise and infinite dimensional analysis;
- Non-commutative harmonic analysis with applications to non-commutative probability;
- 6. Quantum information and quantum entropy;
- 7. Quantum dynamical semigroups and Lévy processes.

The Stefan Banach International Mathematical Center was the main organizer of the Conference, which was also sponsored by the Mathematical Institute of Wrocław University, Institute of Mathematics of the Wrocław University of Technology and by the University of Łódź. Part of the Conference expenses was covered by a grant from the State Committee for Scientific Research (KBN) and by the Polish Ministry of Education. We also acknowledge the financial support of the EU Network "Quantum Probability with Applications to Physics, Information Theory and Biology".

We would like to thank the Scientific Committee for the preparation of the scientific content of the Conference.

Special thanks go to all the speakers of the Conference. In particular we highly appreciate the special invited introductory lectures given by Luigi Accardi "The Interacting Fock Space as a net connecting different branches of mathematics and physics", Gilles Pisier "Introduction to operator spaces", and Stanisław L. Woronowicz "Heisenberg canonical commutation relations".

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