Introduction

This volume contains mainly the lectures delivered by the participants of the International Conference: Operator Theory and its Applications in Mathematical Physics – OTAMP 2004, held at Mathematical Research and Conference Center in Bedlewo near Poznan. The idea behind these lectures was to present interesting ramifications of operator methods in current research of mathematical physics. The topics of these Proceedings are primarily concerned with: functional models of non-selfadjoint operators, spectral properties of Dirac and Jacobi matrices, Dirichlet-to-Neumann techniques, Lyapunov exponents methods and inverse spectral problems for quantum graphs.

All papers of the volume contain original material and were refereed by acknowledged experts.

The Editors thank all the referees whose critical remarks helped to improve the quality of this volume.

The Organizing Committee of the conference would like to thank all session organizers for taking care about the scientific programm and all participants for making warm and friendly atmosphere during the meeting.

We are particulary grateful to the organizers of **SPECT**, without whose financial support the OTAMP 2004 would never been so successful. We also acknowledge financial support of young Polish participants by Stefan Banach International Mathematical Center and thank the staff of the Conference Center at Bedlewo for their great support which helped to run the conference smoothly.

Finally, we thank the Editorial Board and especially Professor I. Gohberg for including this volume into the series **Operator Theory: Advances and Applications** and to Birkhäuser-Verlag for help in preparation of the volume.

Birmingham – Krakow – Lund St. Petersburg – Stockholm August 2006 The Editors