CONTEMPORARY MATHEMATICS

535

Spectral Theory and Geometric Analysis

International Conference in Honor of Mikhail Shubin's 65th Birthday Spectral Theory and Geometric Analysis July 29–August 2, 2009 Northeastern University, Boston, MA

> Maxim Braverman Leonid Friedlander Thomas Kappeler Peter Kuchment Peter Topalov Jonathan Weitsman Editors



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American Mathematical Society Providence, Rhode Island

Editorial Borad

Dennis DeTurck, managing editor George Andrews Abel Klein Martin J. Strauss

2000 Mathematics Subject Classification. Primary 30F30, 35P20, 35P25, 35Q35, 35S05, 58E15, 58J40, 58J50.

Library of Congress Cataloging-in-Publication Data

Spectral theory and geometric analysis : an international conference in honor of Mikhail Shubin's 65th birthday, July 29–August 2, 2009, Northeastern University, Boston, Massachusetts / Maxim Braverman...[et al.], editors.

p. cm. — (Contemporary mathematics ; v. 535)

Includes bibliographical references.

ISBN 978-0-8218-4948-4 (alk. paper)

1. Spectral theory (Mathematics)—Congresses. 2. Geometric analysis—Congresses. 3. Geometric analysis—Congresses. I. Shubin, M. A. (Mikhail Aleksandrovich), 1944– II. Braverman, Maxim, 1966–

QC20.7.S64S644 2010 515'.353—dc22

201003783

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Preface

Misha Shubin made many seminal contributions to Spectral Theory and Geometric Analysis. He is also an outstanding teacher: he directed nearly twenty Ph.D. dissertations, and influenced many young mathematicians who were not his students. His book Pseudodifferential Operators and Spectral Theory, written more than 30 years ago, is still a standard textbook.

Mikhail Shubins 65th Birthday was celebrated at a conference titled *Spectral Theory and Geometric Analysis* held at Northeastern University in Boston in the summer of 2009. The speakers at this conference were leading mathematicians working in Global Analysis. The call for papers for this volume went to all participants of the conference.

We would like to thank the authors who contributed to this volume as well as those who served as referees.

Maxim Braverman Leonid Friedlander Thomas Kappeler Peter Kuchment Peter Topalov Jonathan Weitsman This volume contains the proceedings of the conference on Spectral Theory and Geometric Analysis, held at Northeastern University, Boston, MA, from July 29–August 2, 2009, which honored Mikhail Shubin on his 65th birthday.

The papers in this volume cover important topics in spectral theory and geometric analysis such as resolutions of smooth group actions, spectral asymptotics, solutions of the Ginzburg–Landau equation, scattering theory, Riemann surfaces of infinite genus, tropical mathematics and geometric methods in the analysis of flows in porous media, and artificial black holes.



