CONTEMPORARY MATHEMATICS

356

Chapel Hill Ergodic Theory Workshops

June 8–9, 2002 and February 14–16, 2003 University of North Carolina Chapel Hill, NC

> Idris Assani Editor



American Mathematical Society

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American Mathematical Society Providence, Rhode Island

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I would like to dedicate this volume to my mother who passed away on December 2, 2003.

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Preface

In the summer of 2002 the editor of this volume began organizing Ergodic theory workshops at the University of North Carolina at Chapel Hill. The second workshop was held on February 2003. A third workshop was organized in February 2004. The present volume includes contributions from some of the participants at the 2002 and 2003 workshops. The list of participants outside Chapel Hill to both workshops is the following: Lina Avramidou^{*}, Joe Auslander, Ken Berg, Guy Cohen^{*}, Ciprian Demeter^{*}, Hillel Furstenberg, Geoffrey Goodson, Anish Gosh^{*}, Roger Jones, Jonathan King, Isaac Kornfeld, Bryna Kra, Michael Lin, Igor Mezic, Kimberly Presser, and Arkady Tempelman. The names asterisks were graduate students at the time of these workshops. Some of them seized on this opportunity and together with more senior researchers submitted joint papers to this volume.

The goals of these workshops are mainly the following:

1) to allow interested young researchers (graduate students, Post Doctoral students and Assistant professors) to be introduced to active research areas.

2) to energize the graduate program at UNC Chapel Hill. To this effect the speakers were asked to make the first 15 minutes of their talks understandable to advanced graduate students.

3) to promote the interaction between established researchers and younger researchers.

4) to target minority and underrepresented groups and facilitate their possible insertion into the graduate program at UNC Chapel Hill.

The success of these two workshops has allowed us to make these February Ergodic theory workshops an annual event. The most recent one was held in February 2004. We are welcoming the support of the MSRI for the forthcoming February 2005 and 2006 workshops.

It is a pleasure to acknowledge the institutions that made these events possible through their support. First we thank the National Science Foundation for its continued support. Thanks also to the Department of Mathematics, the Deans of the College of Arts and Sciences and the Vice Chancellor for research at UNC Chapel Hill. We would like also to acknowledge the energetic support of the staff and some of the interested graduate students in our Department of Mathematics.

Finally we appreciate the support of the American Mathematical Society and its Contemporary Mathematics Staff. Special thanks to Christine Thivierge for her smooth handling of the publication process.

More information about the workshops can be found at the following URL:

PREFACE

 $www.math.unc.edu/Faculty/assani/MiniConference/ergodicminiconf.html and at www.math.unc.edu/Faculty/assani/ErgodicWorkshop/index.html % \label{eq:stars} \label{eq:stars} \label{eq:stars} \end{tabular} \label{eq:stars} \end{tabular} \label{eq:stars} \end{tabular} \end{tabular}$

Idris Assani

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This volume grew out of two ergodic theory workshops held at the University of North Carolina at Chapel Hill. Included are research and survey articles devoted to various topics in ergodic theory. The book is suitable for graduate students and researchers interested in these and related areas.



