DYNAMICAL SYSTEMS AND ERGODIC THEORY

Editor of the Volume

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PREFACE

The XXVIIIth Semester at the Stefan Banach International Mathematical Center in Warsaw (September 16 – December 18, 1986) was devoted to Dynamical Systems and Ergodic Theory. Its main aim was to discuss recent important topics in the field, thus creating an opportunity for young mathematicians to improve their qualifications, stimulating their interests and developing contacts among specialists from different countries. We would like to thank all the participants for their parts in attaining this goal. 161 mathematicians from 22 countries participated in the works of the Semester, among them many outstanding specialists. The main topics discussed during the Semester were:

1. ergodic theory of smooth dynamical systems,
2. real and complex one-dimensional dynamics,
3. chaos and attractors,
4. bifurcations theory of vector fields,
5. dynamical systems in differential geometry,
6. ergodic theory,
7. infinite-dimensional dynamical systems,
8. dynamical systems in statistical mechanics.

This volume contains the extended versions of many of the talks as well as a few papers which were not presented at the Semester. Most of them are research papers, though several surveys are also included.

It is important to mention those speakers who gave series of talks but have not contributed to this volume, namely Professors: J.-P. Allouche, R. Bogdanov, H. G. Bothe, H. Broer, P. Brunovský, S. Bullet, L. Bunimovič, F. Dumortier, B. Fiedler, D. Fried, E. Ghys, A. Katok, G. Keller, F. Ledrappier, R. Moriyon, Ya. B. Pesin, E. Presutti, P. Senf, J. Smital, R. Spatzier, S. J. van Strien, J.-P. Thouvenot, Ch. Tresser, M. I. Višik, Yi-Sui-Sun and H. Żołądek. We would like to express our gratitude to all the speakers and contributors to this volume. Our thanks are also due to the Scientific Council of the Stefan Banach International Mathematical Center which was the initiator of the Semester. We would also like to thank our colleagues,

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