

CONTEMPORARY MATHEMATICS

744

Dynamics: Topology and Numbers

Conference

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July 2–6, 2018

Max Planck Institute for Mathematics, Bonn, Germany

Pieter Moree

Anke Pohl

L'ubomír Snoha

Tom Ward

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*The editors and participants dedicate this volume to the memory of our dear friend
and colleague Sergii Kolyada (December 7th, 1957 – May 16th, 2018)*

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Preface

This volume flows from the activity Dynamics: Topology and Numbers, held at the Max Planck Institute for Mathematics (MPIM) in Bonn in July 2018. The activity brought together about 90 researchers from 25 different countries, along with many of the long-term visitors at the MPIM. This was the fourth conference at the MPIM on the theme of dynamical systems and its relationships with the diverse fields of number theory, geometry, topology, ergodic theory, and combinatorics.



Sergii at the MPIM (with permission of the Max Planck Institute for Mathematics)

The four activities in the same broad area were instigated by Sergii, starting with the highly successful Algebraic and Topological Dynamics in 2004, continuing with Dynamical Numbers in 2009 and Dynamics and Numbers in 2014, and ending with Dynamics: Topology and Numbers in 2018. All four of these gatherings highlighted Sergii's ability to bring diverse mathematicians together and to organise conferences with great energy, friendliness, enthusiasm, and commitment. The

success of this series of conferences also reflects the effort and skill of the staff at the MPIM, who found ways around every difficulty and offered unfailing support to the various organisers (comprising David Ellwood, Sergiï Kolyada, Yuri Manin, Martin Möller, Pieter Moree, Anke Pohl, Tom Ward, and Don Zagier in various combinations).

Tragically, Sergiï passed away less than two months before the 2018 conference was due to take place. Instead of a rather celebratory event, those assembled were able to share fond memories of Sergiï and reflect on his many contributions. We can only echo Mike Shub's words when another mathematician passed away far too early: "Don't forget to say that we all liked him".

The editors wish to record their thanks to the staff at the Max Planck Institute, and to the many researchers who participated, for all the efforts they made to make this a stimulating and intellectually rich event. The editors also thank Alexandre Kosyak for help in contacting mathematicians in Ukraine connected to Sergiï.

Pieter Moree, Bonn
Anke Pohl, Bremen
Lubomír Snoha, Banská Bystrica
Tom Ward, Leeds

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This volume contains the proceedings of the conference Dynamics: Topology and Numbers, held from July 2–6, 2018, at the Max Planck Institute for Mathematics, Bonn, Germany.

The papers cover diverse fields of mathematics with a unifying theme of relation to dynamical systems. These include arithmetic geometry, flat geometry, complex dynamics, graph theory, relations to number theory, and topological dynamics.

The volume is dedicated to the memory of Sergiy Kolyada and also contains some personal accounts of his life and mathematics.



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