

# Preface

Encounters between the fields of analysis, geometry, and topology are widespread and often provide major impetus for breakthroughs in these domains. Recent developments in low-dimensional topology, algebraic geometry, symplectic geometry, complex analysis, and tropical geometry are so rich with impressive examples that any attempt to reflect a major portion of them in a single volume would be too ambitious.

For example, recent exciting progress in low-dimensional topology and geometry would have been unthinkable without powerful techniques from analysis; new achievements in topology and symplectic geometry have been influencing complex analysis; methods of tropical geometry are being used in algebraic geometry, statistical physics, and complex analysis; differential equations coming from complex analysis have applications in algebraic geometry.

The variety of topics presented by leading experts in this volume should nonetheless give some sense of recent developments in these fields and their interactions with one another.

A Marcus Wallenberg Symposium on Perspectives in Analysis, Geometry, and Topology was held at Stockholm University in May 2008. The choice of subjects for this symposium and this volume was motivated by the work and the mathematical interests of Oleg Viro, to whom the symposium and this collection are dedicated. As a mathematician with broad education and interests, Viro has a deep feeling for the unity of mathematics. Viro is famous for fundamental results in several areas of geometry and topology. As a professor at Uppsala University, Viro has made invaluable contributions to Swedish research by complementing the country's longstanding tradition in analysis with his own renowned expertise in geometry and topology.

Perspectives in Analysis, Geometry, and Topology

On the Occasion of the 60th Birthday of Oleg Viro

Itenberg, I.; Jöricke, B.; Passare, M. (Eds.)

2012, XXXI, 464 p., Hardcover

ISBN: 978-0-8176-8276-7

A product of Birkhäuser Basel