CONTEMPORARY MATHEMATICS

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Topics in Several Complex Variables

First USA-Uzbekistan Conference Analysis and Mathematical Physics May 20–23, 2014 California State University, Fullerton, CA

> Zair Ibragimov Norman Levenberg Sergey Pinchuk Azimbay Sadullaev Editors



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Preface

The first USA-Uzbekistan Conference on Analysis and Mathematical Physics took place May 20–23, 2014 at California State University, Fullerton. The purpose was to encourage interaction between researchers in the USA and their counterparts in Uzbekistan and other countries. There were special sessions in the following five areas: algebra and functional analysis; dynamical systems; Schrödinger operators; several complex variables; and spectral theory of differential operators. The contents of this volume originated from the sessions in several complex variables and cover a wide variety of topics in pluripotential theory, symplectic geometry and almost complex structures, integral formulas, holomorphic extension, and complex dynamics.

Regarding this volume, we offer our gratitude to the colleagues who kindly agreed to referee the submissions. Finally, many thanks are due to the editorial staff of the AMS, in particular to Christine Thivierge, for the friendly and efficient manner in which the process of preparing and publishing these proceedings was undertaken.

Acknowledgement. We would like to thank the participants at the conference and the contributors to this proceedings. The meeting was supported by the National Science Foundation, the California State University, Fullerton Department of Mathematics (as well as the College of Natural Sciences and Mathematics, the College of Humanities and Social Sciences, the Mihaylo College of Business and Economics, and the College of the Arts), the Claremont McKenna College Department of Mathematics, the Simons Foundation, and @Xi Computer.

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This volume contains the proceedings of the Special Session on Several Complex Variables, which was held during the first USA-Uzbekistan Conference on Analysis and Mathematical Physics from May 20–23, 2014, at California State University, Fullerton.

This volume covers a wide variety of topics in pluripotential theory, symplectic geometry and almost complex structures, integral formulas, holomorphic extension, and complex dynamics. In particular, the reader will find articles on Lagrangian submanifolds and rational convexity, multidimensional residues, S-parabolic Stein manifolds, Segre varieties, and the theory of quasianalytic functions.



