Complex Manifolds and Hyperbolic Geometry

II Iberoamerican Congress on Geometry
January 4–9, 2001
CIMAT, Guanajuato, Mexico

Clifford J. Earle
William J. Harvey
Sevín Recillas-Pishmish
Editors
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Preface

The first Iberoamerican Congress on Geometry took place in Olmué, Chile in January 1998. The success of that international meeting soon led to plans for a sequel, and II Iberoamerican Congress on Geometry was held January 4–9, 2001 at CIMAT in Guanajuato, Mexico. CIMAT, the Centro de Investigación en Matemáticas A.C., was a natural location for this meeting because of its active, internationally recognized program of research in pure mathematics, as well as statistics and probability and computer science.

The main subjects of the Congress were complex manifolds and hyperbolic geometry, and the contents of this volume reflect both the unity and the diversity of these subjects. The contributors include many participants in the Congress and a few invited participants who were unable to attend. We are grateful to all of them.

We are also grateful to the funding agencies whose financial support made the Congress possible. Major contributors include CONACYT, CIMAT, UNAM in Mexico, the NSF in the United States, and the exchange program CONACYT (Mexico) – CONICYT (Chile).

The excellent local arrangements and the warm hospitality provided by the local organizers and the CIMAT staff added greatly to the success of the Congress, and we thank them on behalf of all the non–local participants.

Finally, we wish to thank the staff of the AMS Publications division, especially Ms. Christine Thivierge, whose steady advice and assistance were crucial in bringing this book project to a successful conclusion.

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This volume derives from the second Iberoamerican Congress on Geometry, held in 2001 in Mexico at the Centro de Investigación en Matemáticas A.C. The conference topics were chosen with an eye toward the presentation of new methods, recent results, and the creation of more interconnections between the different research groups working in complex manifolds and hyperbolic geometry.

Included here are their discussions revolving around questions of geometry that are related in one way or another to functions of a complex variable. There are contributors on Riemann surfaces, hyperbolic geometry, Teichmüller spaces, and quasiconformal maps.

Complex geometry has many applications—triangulations of surfaces, combinatorics, ordinary differential equations, complex dynamics, and the geometry of special curves and jacobians, among others. In this book, research mathematicians around the globe working on complex geometry will find a selection of strong papers by international experts.