CONTEMPORARY MATHEMATICS

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The Geometry of Riemann Surfaces and Abelian Varieties

III Iberoamerican Congress on Geometry in Honor of Professor Sevín Recillas-Pishmish's 60th Birthday June 8–12, 2004 Salamanca, Spain

> José M. Muñoz Porras Sorin Popescu Rubí E. Rodríguez Editors



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This volume contains the proceedings of the III Iberoamerican Congress on Geometry in honor of Professor Sevín Recillas-Pishmish's 60th birthday, held at the University of Salamanca, Spain, from June 8-12, 2004, with support from Spain (University of Salamanca, DGI grant BFM2002-12288-E, Junta de Castilla y León and Caja Duero), the United States of America (NSF grant DMS-0342699) and Chile (Fondecyt grant 1030595).

2000 Mathematics Subject Classification. Primary 30F10, 14H30, 14H40; Secondary 14H10, 14H15, 14H37, 14K25, 14K05, 30F40.

Library of Congress Cataloging-in-Publication Data

Iberoamerican Congress on Geometry (3rd: 2004: Salamanca, Spain) The geometry of Riemann surfaces and Abelian varieties: III Iberoamerican Congress on Geometry in honor of Professor Sevin Recillas-Pishmish's 60th birthday, June 8–12, 2004, Salamanca, Spain/ Jose M. Munoz Porras, Sorin Popescu, Rubi E. Rodriguez, editors. p. cm. - (Contemporary mathematics, ISSN 0271-4132; 397) Includes bibliographical references.

ISBN 0-8218-3855-5 (alk. paper)

1. Riemann surfaces-Congresses. 2. Abelian groups-Congresses. I. Title: Geometry of Riemann surfaces and Abelian varieties. II. Muñoz Porras, Jose M. (José María), 1956- III. Popescu, Sorin, 1963- IV. Rodríguez, Rubí E., 1953- V. Recillas-Pishmish, Sevín, 1943- VI. Title. VII. Contemporary mathematics (American Mathematical Society); v. 397.

QA333.I24 2004 515'.93-dc22

2005057090

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> 1098765432111 10 09 08 07 06

To our friend Sevín

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Preface

In September 1994, during an Algebraic Geometry Workshop in Morelia, Mexico, a number of Iberoamerican mathematicians (from Salamanca in Spain, Santiago and Valparaíso in Chile, and Morelia, Guanajuato and Mexico City in Mexico) who were working on similar types of problems joined their efforts and decided to meet again soon.

As a result, in July 1996, a workshop on "Abelian Varieties and Theta functions" was held in Morelia and its proceedings were published in Aportaciones Matemáticas, Serie Investigación 13, Soc. Mat. Mex. 1998. The strong interest shown by participants motivated and fueled the idea to create a periodic mathematical framework to communicate, discuss and interact; and it was proposed that the next meeting should be held in Chile.

This idea was presented (and adhered to enthusiastically) at the Kra Fest at Stony Brook in 1997, and a multinational alliance (Chile, Mexico, Spain, USA) was formed to carry it out.

The "I Iberoamerican Congress on Geometry" was held in Olmué, Chile in January 1998, and its main topic was: The Geometry of Groups – Curves, Abelian Varieties, Theoretical and Computational Aspects. The congress proceedings were published in Contemp. Math. **240**, AMS 1999. The preface to that volume expressed the wish for this event to have been a continuation as well as a prelude to future Iberoamerican meetings.

This hope materialized as the "II Iberoamerican Congress on Geometry" was held at CIMAT in Guanajuato, Mexico, in January 2001. The main themes there were Complex Manifolds and Hyperbolic Geometry, and a proceedings was published in the current series: Contemp. Math. **311**, AMS. 2002. The participants at the congress agreed that the next meeting would be held in Spain.

As a result the third edition of the Iberoamerican Congress on Geometry was held at the University of Salamanca, Spain, in June 2004. The main themes here were Algebraic Curves, Riemann Surfaces, Modular Forms and Hyperbolic Geometry. It was an extremely successful event which provided the Iberoamerican community of geometers a wonderful opportunity to communicate and discuss their recent research.

The Salamanca meeting was dedicated to celebrate the 60^{th} birthday of our friend Sevín Recillas. He was a big creator of mathematics, friendships and research groups.

There are some mathematicians who prefer to work from behind the scenes. Sevín was of that kind, but just by looking a little deeper and asking a senior colleague or a young mathematician, one can find the deepest gratitude to him: a reflection on the beauty of mathematics, a loaned car, a big favor done, a good

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reference letter, some encouraging words at a critical moment ... These are some of the many different ways that he found to help, encourage, support and push forward those around him. Often these kinds of people are recognized after passing away. We were indeed fortunate to have given it to him before it was too late.

We would like to acknowledge the Institutions that financially supported the meeting and the participants, and thus made this congress possible. Funding came from Spain (University of Salamanca, DGI grant BFM2002-12288-E, Junta de Castilla y León and Caja Duero), United States of America (NSF grant DMS-0342699) and Chile (Fondecyt grant 1030595).

Our appreciation goes also to Ms. Christine M. Thivierge, Editorial Assistant to the Contemporary Mathematics series of AMS, and to Professors Esteban Gómez-González and Francisco Plaza-Martín from Salamanca, all of whom have greatly contributed to the publication of this proceedings.

After the congress, we have agreed to celebrate the next meeting in Ouro Preto, Brasil, in August 2007. We hope that the fourth event will turn out to be equally successful!

> José M. Muñoz Porras Sorin Popescu Rubí E. Rodríguez

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Most of the papers in this book deal with the theory of Riemann surfaces (moduli problems, automorphisms, etc.), abelian varieties, theta functions, and modular forms. Some of the papers contain surveys on the recent results in the topics of current interest to mathematicians, whereas others contain new research results.



