CONTEMPORARY MATHEMATICS

637

Algorithmic Arithmetic, Geometry, and Coding Theory

14th International Conference
Arithmetic, Geometry, Cryptography and Coding Theory
June 3–7, 2013
CIRM, Marseille, France

Stéphane Ballet
Marc Perret
Alexey Zaytsev
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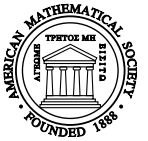

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Preface

The 14th AGCT conference (Arithmetic, Geometry, Cryptography, and Coding Theory) took place at CIRM (Centre International de Rencontres Mathématiques) in Marseille, France, on June 3–7, 2013. This international conference has been a major event in the area of arithmetic geometry and its applications for more than 25 years, 77 participants attended this year. We thank all of them for creating a stimulating research environment. The topics of the talks extended from algebraic number theory to diophantine geometry, curves and abelian varieties over finite fields from the theoretical or the algorithmic point of view, and applications to error-correcting codes.

We especially thank the speakers Ekaterina Alekseenko, Nurdagul Ambar, Alp Bassa, Peter Beelen, Jean-Robert Belliard, Ivan Boyer, Niels Bruin, Florian Caullery, Claus Diem, Virgile Ducet, Iwan Duursma, Sudhir Ghorpade, Cécile Gonçalves, Émmanuel Hallouin, Safia Haloui, Johan Peter Hansen, Masaaki Homma, Grigory Kabatiansky, Motoko Kawakita, David Kohel, Dmitry Kubrak, Gilles Lachaud, Kristin Lauter, Winnie Li, Enric Nart, Ferruh Ozbudak, Laurent Poinsot, Hugues Randriambololona, Christophe Ritzenthaler, Damien Robert, Karl Rökaeus, Robert Rolland, Sergey Rybakov, Alexander Schmidt, Jeroen Sijsling, Benjamin Smith, Patrick Solé, and Milakulo Tukumuli for their lectures.

The editors would like to thank the anonymous referees and the staff of CIRM (Olivia Barbarroux, Muriel Milton and Laure Stefanini) for their remarkable professionalism.

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Algorithmic Arithmetic, Geometry, and Coding Theory • Ballet et al., Editors

This volume contains the proceedings of the 14th International Conference on Arithmetic, Geometry, Cryptography, and Coding Theory (AGCT), held June 3–7, 2013, at CIRM, Marseille, France.

These international conferences, held every two years, have been a major event in the area of algorithmic and applied arithmetic geometry for more than 20 years.

This volume contains 13 original research articles covering geometric error correcting codes, and algorithmic and explicit arithmetic geometry of curves and higher dimensional varieties. Tools used in these articles include classical algebraic geometry of curves, varieties and Jacobians, Suslin homology, Monsky–Washnitzer cohomology, and L-functions of modular forms.

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