CONTEMPORARY MATHEMATICS

633

Algorithmic Problems of Group Theory, Their Complexity, and Applications to Cryptography

AMS Special Sessions
Algorithmic Problems of Group Theory and Their Complexity
January 9–10, 2013
San Diego, California

Algorithmic Problems of Group Theory and Applications to Information Security
April 6–7, 2013
Boston College, Chestnut Hill, Massachusetts

Delaram Kahrobaei
Vladimir Shpilrain
Editors

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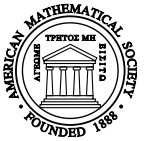

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Preface

This volume consists of contributions by participants and speakers in special sessions at two AMS meetings. These special sessions concerned algorithmic problems of group theory, their complexity, and applications to cryptography. The AMS Special Session on Algorithmic Problems of Group Theory and Their Complexity was held at the San Diego Convention Center in January 2013 and the AMS Special Session on Algorithmic Problems of Group Theory and Applications to Information Security was held at Boston College in April 2013.

Over the past few years the field of group-based cryptography has attracted the attention of both group theorists and cryptographers. The new techniques inspired by algorithmic problems in non-commutative group theory and their complexity have offered promising ideas for developing new cryptographic primitives. This volume contains both survey and research papers on algorithmic group theory and applications to cryptography.

We are grateful to the American Mathematical Society for their help in the publication of this volume. In particular we thank Christine Thivierge for her patience and assistance in putting this volume together.

Delaram Kahrobaei
Vladimir Shpilrain

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Group Theory, Complexity, Cryptography • Kahrobaei et al., Editors

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