

PREFACE

Due to the increasing importance of digital communications, the area of research in coding theory and cryptography is broad and fast developing. In this book there are presented some of the latest research developments in the area. The book grew as a combination of two research conferences organized in the area: the *Vlora Conference in Coding Theory and Cryptography* held in Vlora, Albania during May 26-27, 2007, and the special session on coding theory as part of the *Applications of Computer Algebra* conference, held during July 19-22, Oakland University, Rochester, MI, USA.

The Vlora Conference in Coding Theory and Cryptography is part of Vlora Conference Series which is a series of conferences organized yearly in the city of Vlora sometime in the period April 25 - May 30. The conference is 3-4 days long and focuses on some special topic each year. The topic of the 2007 conference was coding theory and cryptography. The Vlora conference series will host a Nato Advanced Study Institute during the year 2008 with the theme *New Challenges in Digital Communications*. More information of the conferences organized by the Vlora group can be found at <http://www.albmath.org/vlconf>.

Applications of Computer Algebra (ACA) is a series of conferences devoted to promoting the applications and development of computer algebra and symbolic computation. Topics include computer algebra and symbolic computation in engineering, the sciences, medicine, pure and applied mathematics, education, communication and computer science. Occasionally the ACA conferences have special sessions on coding theory and cryptography.

I especially want to thank A. Elezi who shared with me the burdens of organizing the *Vlora Conference in Coding Theory and Cryptography*, the participants of the conference in Vlora, and the Department of Mathematics and Informatics at the Technological University of Vlora for helping host the conference.

Also, my thanks go to the Department of Mathematics and Statistics at Oakland University for hosting the *Applications of Computer Algebra* conference. Without their financial and administrative support such a conference would not be possible. My special thanks go to J. Nachman for

sharing with me all the burdens of organizing such a big conference. I want to thank also the co-organizers of the coding theory session D. Joyner and C. Shor and all the participants of this session.

There are fourteen papers in this book which cover a wide range of topics and 26 authors from institutions across North America and Europe. I want to thank all the authors for their contributions to this volume. Finally, my special thanks go to my co-editors W. C. Huffman, D. Joyner, and V. Ustimenko for their continuous support and excellent editorial job. It was their efforts which made the publication of this book possible.

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