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Security and Cryptography for Networks

7th International Conference, SCN 2010 Amalfi, Italy, September 13-15, 2010 Proceedings



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Preface

The 7th Conference on Security and Cryptography for Networks (SCN 2010) was held in Amalfi, Italy, during September 13-15, 2010. This biennial conference has traditionally been held in Amalfi, with the exception of the fifth edition which was held in nearby Maiori. This year the conference received the financial support of the Department of "Informatica ed Applicazioni" and of the Faculty of Science of the University of Salerno, Italy.

The wide availability of computer networks, and in particular of the global Internet, offers the opportunity to perform electronically and in a distributed way a wide range of transactions. Hence, cryptography and security assume an increasingly important role in computer networks, both as critical enablers of new functionalities as well as warrantors of the mechanisms' soundness and safety. The principal aim of SCN as a conference is to bring together researchers in the above fields, with the goal of fostering cooperation and exchange of ideas in the stunning Amalfi Coast setting.

The conference received 94 submissions—a record-high number for the SCN conference series—in a broad range of cryptography and security areas, out of which 27 were accepted for publication in these proceedings on the basis of quality, originality, and relevance to the conference's scope. At least three Program Committee (PC) members—out of 27 world-renowned experts in the conference's various areas of interest—reviewed each submitted paper, while submissions coauthored by a PC member were subjected to the more stringent evaluation of five PC members.

In addition to the PC members, many external reviewers joined the review process in their particular areas of expertise. We were fortunate to have this knowledgeable and energetic team of experts, and are deeply grateful to all of them for their hard and thorough work, which included a very active discussion phase—almost as long as the initial individual reviewing period. The paper submission, review and discussion processes were effectively and efficiently made possible by the Web-Submission-and-Review software, written by Shai Halevi, and hosted by the International Association for Cryptologic Research (IACR). Many thanks to Shai for his assistance with the system's various features and constant availability.

Given the perceived quality of the submissions, the PC decided this year to give a Best Paper Award, both to celebrate the science and as a general way to promote outstanding work in the fields of cryptography and security and keep encouraging high-quality submissions to SCN. "Time-Specific Encryption," by Kenneth Paterson and Elizabeth Quaglia, was conferred such distinction.

Recent years have witnessed a rapid and prolific development of latticeand "learning with errors" (LWE)-based cryptographic constructions, given the hardness and versatility of the underlying problems. The program was further

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enriched by the invited talk "Heuristics and Rigor in Lattice-Based Cryptography" by Chris Peikert (Georgia Institute of Technology), a world authority on the subject.

We finally thank all the authors who submitted papers to this conference; the Organizing Committee members, colleagues and student helpers for their valuable time and effort; and all the conference attendees who made this event a truly intellectually stimulating one through their active participation.

September 2010

Juan A. Garay Roberto De Prisco

SCN 2010

The 7th Conference on Security and Cryptography for Networks

September 13-15, 2010, Amalfi, Italy

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