

Preface

This volume contains the proceedings of the Latin American Theoretical Informatics (LATIN) conference to be held in Cancun, Mexico, April 3–6, 2002.

The LATIN series of symposia was launched in 1992 to foster the interaction between the Latin-American community and computer scientists around the world. This is the fifth event in the series after São Paulo, Brazil (1992), Valparaíso, Chile (1995), Campinas, Brazil (1998), and Punta del Este, Uruguay (2000). The proceedings of these conferences were also published by Springer-Verlag in the Lecture Notes in Computer Science series: volumes 583, 911, 1380, and 1776, respectively. Also as before, we expect to publish a selection of the papers in a special issue of a prestigious journal.

We received 104 submissions (one of which was withdrawn), from about 220 different authors in 26 different countries. Each paper was assigned to at least 3 Program Committee members. The Program Committee selected 44 papers from 22 countries using the help of 106 external reviewers in an electronic meeting. This is a record number of submissions and the lowest acceptance rate, compared to 86 received, 42 accepted in 2000, 53 received, 28 accepted in 1998, 68 received, 38 accepted in 1995, and 66 received, 32 accepted in 1992. Also, the conference included 6 invited talks and 2 tutorials.

The assistance of several organizations and individuals was essential for the success of this meeting. Also essential were previous LATIN meetings, because of their role in developing computer science research in Latin-America, and their valuable organizational experience. Ricardo Baeza-Yates, Daniel Panario, and Alfredo Viola provided insightful advice and shared with us their experiences as organizers of previous LATIN meetings. The conference was possible thanks to the Conference Chair, Edgar Chávez. In addition to providing advice on academic matters, he was in charge of the conference web site, the electronic submission system, local arrangements, publicity, financial administration, and fund raising. Thanks to my host institution, the Cambridge Research Laboratory of Compaq for all the support, as well to the Instituto de Matemáticas, UNAM, from which I am on leave. Finally, we thank Springer-Verlag for publishing these proceedings in the LNCS series.

LATIN has established itself as a conference for theoretical computer science research in Latin-America of the highest academic standards. It has strengthened the ties between local and international scientific communities, and fostered research in Latin-America. We believe that this volume reflects these facts.

Invited Presentations

Tutorials

From Algorithms to Cryptography

Fabrizio Luccio and Linda Pagli

Università di Pisa, Italy

Algebraic Topology and Concurrency

Eric Goubault

Commissariat à l'énergie

atomique, France

Maurice Herlihy

Brown University, USA

Martin Raussen

Aalborg University, Denmark

Invited Talks

Phase Transitions in Computer Science

Jennifer Chayes

Microsoft Research, USA

The Internet, the Web, and Algorithms

Christos H. Papadimitriou

UC Berkeley, USA

Erdős Magic

Joel Spencer

Courant Institute, USA

Open Problems in Computational Geometry

Jorge Urrutia

Instituto de Matemáticas,

UNAM, México

Quantum Algorithms and Complexity

Umesh Vazirani

UC Berkeley, USA

Testing and Checking of Finite State Systems

Mihalis Yannakakis

Avaya Laboratories, USA

Organization

Conference Chair:	Edgar Chávez, Univ. Michoacana, México
Program Chair:	Sergio Rajsbaum, Compaq CRL and UNAM
Steering Committee:	Ricardo Baeza-Yates, Univ. de Chile, Chile Gaston Gonnet, ETH Zurich, Switzerland Claudio Lucchesi, Univ. de Campinas, Brazil Imre Simon, Univ. de Sao Paulo, Brazil

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Janos Simon	Univ. of Chicago, USA

Referees

Jean-Paul Allouche	Eric Goubault	Carl Pomerance
Maria Alpuente	Bernhard Gramlich	Haydée W. Poubel
Rajeev Alur	Rachid Guerraoui	Helmut Prodinge
Andris Ambainis	Venkat Guruswami	Ruy de Queiroz
Sergio Antoy	Michael Hanus	Femke van Raamsdonk
Andrea Asperti	Tero Harju	Klaus Reinhardt
Holger Austinat	Hugo Herbelin	Darío Robak
Gary Benson	Miki Hermann	Yurii Rogojine
Ernesto G. Birgin	Ulrich Hertrampf	Peter Rossmanith
Hans Bodlaender	Joseph D. Horton	Ronny Roth
Dan Boneh	Jarkko Kari	Sartaj Sahni
Renato Carmo	Sam Kim	Kai Salomaa
Christian Choffrut	Piotr Koszmider	Berry Schoenmakers
Michael Codish	Manfred Kufleitner	Nigel Smart
Richard Cole	Hanno Lefmann	Jose Soares
Erik Demaine	Irene Loiseau	Dina Sokol
Camil Demetrescu	Rita Loogen	Alin Stefanescu
Vinay Deolalikar	Satya V. Lokam	Andreas Stein
Dan Dougherty	Fairouz Kamareddine	A. Strejilevich de Loma
Guillermo Durán	David Kirkpatrick	Dimitrios Thilikos
Wayne Eberly	Monika Maidl	Pawel Urzyczyn
Omer Egecioglu	Arnaldo Mandel	Umesh Vazirani
Andreas Enge	Maurice Margenstern	Helmut Veith
Kousha Etessami	Isabel Mendez-Díaz	Alfredo Viola
Ronald Fagin	Joseph Mitchell	Roel de Vrijer
William M. Farmer	Larry Moss	Gabriel Wainer
Paulo Feofiloff	Lucia Moura	Maria E. T. Walter
Henning Fernau	Ian Munro	Marcelo Weinberger
Rudolf Freund	Cesar Muñoz	Thomas Wilke
Christiane Frougny	Robert Nieuwenhuis	Jerzy Wojciechowski
Shuhong Gao	Alfredo Olivero	Fatos Xhafa
Zhicheng (Jason) Gao	V.Y. Pan	Tao Yang
Luca Gemignani	Gheorghe Paun	Sheng Yu
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