Guest Editorial: Special Issue on Latin American Theoretical Informatics Symposium (LATIN)

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This special issue of *Algorithmica* contains the journal version of selected papers from the ninth Latin American Theoretical Informatics Symposium (LATIN), which was held in the city of Oaxaca, Mexico in April 2010. LATIN was launched in 1992 to foster the interaction between the Latin-American theoretical computer science community and computer scientists around the world. The conference, which is international in scope, is now held every other year, and LATIN'10 was the ninth of a series, after São Paulo, Brazil (1992); Valparaíso, Chile (1995); Campinas, Brazil (1998); Punta del Este, Uruguay (2000); Cancún, Mexico (2002); Buenos Aires, Argentina (2004); Valdivia, Chile (2006); and Buzios, Brazil (2008). The conference proceedings were published by Springer in the Lecture Notes in Computer Science series, as they have been since inception. There were fifty-six papers presented in LATIN'10, and Volume 6034 of LNCS is devoted to them.

A set of papers were selected from those presented in LATIN'10 and invited to submit an extended version for this issue. Each of these papers went through a careful selection and refereeing process. They provide a wide view of the different subfields of theoretical computer science within the scope of LATIN. We are grateful to the authors for their valuable contributions, as well as the reviewers for their effort and dedication. The papers in this issue are:

- *Pairs of Complementary Unary Languages with “Balanced” Nondeterministic Automata.* Viliam Geffert, Giovanni Pighizzini.
- *The Complexity of Counting Eulerian Tours in 4-Regular Graphs.* Qi Ge, Daniel Štefankovič.
- *Minimum-perimeter Intersecting Polygons.* Adrian Dumitrescu, Minghui Jiang.

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- *Gradual Sub-lattice Reduction and a New Complexity for Factoring Polynomials.* Mark van Hoeij, Andrew Novocin.
- *The Power of Fair Pricing Mechanisms.* Christine Chung, Katrina Ligett, Kirk Pruhs, Aaron Roth.
- *Counting Hexagonal Patches and Independent Sets in Circle Graphs.* Paul Bonsma, Felix Breuer.
- *Optimal Polygonal Representation of Planar Graphs.* C.A. Duncan, E.R. Gansner, Y.F. Hu, M. Kaufmann, S.G. Kobourov.
- *Sharp Separation and Applications to Exact and Parameterized Algorithms.* Fedor V. Fomin, Fabrizio Grandoni, Daniel Lokshtanov, Saket Saurabh.
- *Lightweight Data Indexing and Compression in External Memory.* Paolo Ferragina, Travis Gagie, Giovanni Manzini.

Over the past two decades, LATIN has established itself as a preeminent international theoretical computer science conference with perhaps the widest coverage of the field. The papers in this issue attest to this fact.