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Editorial

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This special issue contains six selected papers from the 21st European Symposium on Algorithms, ESA 2013. The symposium was held from September 2–4, 2013 in Sophia Antipolis, France. A small selection of the papers accepted for presentation at the symposium were invited for the special issue. The papers submitted to the special issue went through the standard refereeing procedure of *Algorithmica* to ensure high quality standards. ESA has two tracks. The first four papers are from the track on *Design and Analysis*, and the last two papers are from the tract on *Engineering and Applications*.

The paper *A Quantization Framework for Smoothed Analysis on Euclidean Optimization Problems* by Radu Curticapean and Marvin Künnemann received the Best Student Paper award. In this paper, the authors give a general approach to obtain linear time approximation algorithms, and apply it to a wide range of problems.

In *Logit Dynamics with Concurrent Updates for Local Interaction Potential Games*, Vincenzo Auletta, Diodato Ferraioli, Francesco Pasquale, Paolo Penna and Giuseppe Persiano study a problem from algorithmic game theory, which models players with limited rationality and knowledge.

When a connection is disabled in a communication network where we want to broadcast a message over a shortest path trees, swap edges must be found for such disabled connections. In *A Faster Computation of All the Best Swap Edges of a Shortest Paths Tree*, Davide Bilò, Luciano Gualà, and Guido Proietti give a faster algorithm for the problem to find these swap edges.

The paper *Binary Jumbled Pattern Matching on Trees and Tree-Like Structures* by Travis Gagie, Danny Hermelin, Gad M. Landau, and Oren Weimann studies the

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problem to compress a binary labelled tree or a tree-like structure for fast queries that ask for a subgraph of specified size with a specified number of 1-labelled nodes, and gives an efficient solution for this problem.

The paper *Computing the Greedy Spanner in Linear Space* by Sander P. A. Alewijnse, Quirijn W. Bouts, Alex P. ten Brink and Kevin Buchin received the Best Paper award for the *Engineering and Applications* track. So far, existing algorithms to compute the greedy spanner of a point set in d-dimensional space used quadratic memory; with a new, linear space algorithm for the problem, the authors can compute the greedy spanner for significantly larger instances.

In the paper *The Compressed Annotation Matrix: an Efficient Data Structure for Computing Persistent Cohomology*, Jean-Daniel Boissonnat, Tamal K. Dey, and Clément Maria propose a new implementation and data structure for a recent algorithm to compute persistent cohomology in a field $\mathcal{F}$, and analysis this paper theoretically and with an experimental study.

We thank the authors for their excellent contributions to this special issue, and the referees for the extensive and careful reviewing of the papers.