

Guest Editors' Foreword

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This special issue of *Algorithmica* presents a collection of eight papers whose preliminary versions were included in the program of the Twelfth International Symposium on Graph Drawing (GD '04), which was held September 29 to October 2, 2004, at the City College, CUNY, in New York. All papers were solicited by invitation, thoroughly refereed according to the highest standards of *Algorithmica*, and carefully revised.

During the past two decades, graph drawing, the theory of graph layout and information visualization based on graph representation, has evolved and has broadened drastically. Many of the new developments in graph drawing have been motivated by diverse traditional and prospective applications in software engineering, cartography, artificial intelligence, biochemistry, e-commerce, etc. The questions arising in applications have often led to deep mathematical problems in topology, geometric graph theory, or combinatorial geometry.

The invited papers in this issue focus on the theoretical aspects of graph drawing, including properties of contact and intersection graphs, random geometric graphs, power law graphs, planar convex drawings, layered drawings, confluent drawings, three-dimensional drawings, and reconfiguration of triangulations.

We thank the graph drawing community for contributing to GD '04 and to this collection by submitting strong papers, participating in the discussion following their presentations, or refereeing them. Special thanks to the Editor-in-Chief of *Algorithmica* for devoting a special issue of the journal to graph drawing. Finally, we thank all sponsors of GD '04, including the City College of New York and the University of North Texas, for supporting our project by providing generous funds.

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