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**Special Issue on Selected Papers from the  
Fourteenth International Symposium on  
Graph Drawing, GD 2006**

**Guest Editor's Foreword**

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For this special issue which is devoted to the 14<sup>th</sup> International Symposium on Graph Drawing held in September 2006 in Karlsruhe we invited several of the highest-rated papers. The authors who agreed to contribute to the special issue submitted extended versions of their conference papers which were then refereed and revised afterwards.

The result is a nice representation of the actual graph drawing field, it ranges from theoretical aspects like bar-visibility representations to the practical aspects of graph morphing.

In the first contribution, Felsner and Massow study bar- $k$ -visibility graphs and their thickness. In particular they disprove a conjecture by Dean and Hutchinson for bar-1-visibility graphs.

The point-set embeddability problem, a traditional topic in graph theory, has been generalized to  $k$ -colored point-set embeddability by Di Giacomo, Didimo, Liotta, Meijer, Trotta and Wismath, which constitutes a natural and significant extension towards practical scenarios. The authors concentrate on outerplanar graphs where lower and upper bounds on the number of used bends could be found as well as efficient algorithms.

A very interesting application is presented by Eppstein, namely the drawing of learning spaces. The states of knowledge of some students are modelled by  $st$ -oriented partial cubes. For the special case of  $st$ -planar learning spaces, algorithms are derived that produce comprehensive drawings.

Gutwenger, Klein and Mutzel consider planarization aspects with the presence of constraints, which are given for example as restrictions on which side an edge has to enter a node. The authors completely characterize the set of graphs that are planar under such constraints and give linear-time algorithms.

In “Drawing bipartite graphs on two parallel convex curves”, Di Giacomo, Grilli and Liotta consider the question that drawing bipartite graphs in the traditional way on two parallel straight lines severely restricts the class of planar drawable graphs. The authors fully characterize the set of admissible graphs when the parallel lines are replaced by two convex curves.

A recent topic related to graphics and animation is graph morphing where a specific graph layout has to be morphed into another one while preserving the mental map of the user. Kobourov and Landis consider the intersection-free morphing in spherical space for geodesic-arc drawings.

Many thanks go to the authors for contributing their high-quality papers and to the Editors of the Journal of Graph Algorithms and Applications for making this special issue possible.