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**Special Issue on Selected Papers from the  
Seventh International Workshop on Algorithms  
and Computation (WALCOM 2013)**

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This special issue of Journal of Graph Algorithms and Applications (JGAA) contains journal versions of some papers presented at the Seventh International Workshop on Algorithms and Computation (WALCOM 2013) held at IIT Kharagpur, India during February 14-16, 2013. A few high quality papers were invited for the special issue based on their merits and relevance to JGAA. The invited papers have been reviewed following the standard refereeing process of JGAA. The special issue is a good collection of research papers on graph algorithms and their applications. Preliminary versions of these papers have appeared in the conference proceedings published by Springer as Lecture Notes in Computer Science, Vol. 7748, 2013.

The first paper *On Alliance Partitions and Bisection Width for Planar Graphs* by Martin Olsen and Morten Revsbæk shows that any planar graph with minimum degree at least 4 can be split into two alliances in polynomial time.

The second paper *An FPT algorithm for Tree Deletion Set* by Venkatesh Raman, Saket Saurabh, and Ondřej Suchý presents a  $5^k n^{O(1)}$  time fixed-parameter algorithm for determining whether a given undirected graph on  $n$  vertices has a subset of at most  $k$  vertices whose deletion results in a tree.

The third paper *Box-Rectangular Drawings of Planar Graphs* by Md. Manzurul Hasan, Md. Saidur Rahman, and Md. Rezaul Karim presents a linear time algorithm to determine whether a planar graph  $G$  has a box-rectangular drawing, and to find a box-rectangular drawing of  $G$  if it exists.

The fourth paper *Smoothed Analysis of Belief Propagation for Minimum-Cost Flow and Matching* by Tobias Brunsch, Kamiel Cornelissen, Bodo Manthey, and Heiko Röglin studies belief propagation in the framework of smoothed analysis, and proves that with high probability the number of iterations needed to compute maximum-weight matchings and minimum-cost flows is bounded by a polynomial if the weights/costs of the edges are randomly perturbed.

The fifth paper *Lower bounds for Ramsey numbers for complete bipartite and 3-uniform tripartite subgraphs* by Tapas Kumar Mishra and Sudebkumar Prasant Pal derives lower bounds for (i) the unbalanced diagonal case for  $R(K_{a,b}, K_{a,b})$  and (ii) the unbalanced off-diagonal case for  $R(K_{a,b}, K_{c,d})$ , where  $R(K_{a,b}, K_{c,d})$  denotes the smallest integer  $n$  such that any  $n$ -vertex simple undirected graph contains the complete bipartite graph  $K_{a,b}$  or its complement contains the complete bipartite graph  $K_{c,d}$ . This paper also contains some results on Ramsey-like numbers for 3-uniform tripartite hypergraphs.

We sincerely thank authors for contributing their high-quality papers, reviewers for their excellent review works, and the Editors of JGAA for making this special issue possible.