Special Issue on Selected Papers from the Eighth International Workshop on Algorithms and Computation (WALCOM 2014)

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This special issue of Journal of Graph Algorithms and Applications (JGAA) contains journal versions of some papers presented at the Eighth International Workshop on Algorithms and Computation (WALCOM 2014) held at IIT Madras, India during February 13-15, 2014. 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. 8344, 2014.

The first paper *Algorithm and Hardness Results for Outer-connected Dominating Set in Graphs* by B.S. Panda and Arti Pandey proves that the outer-connected domination decision problem is NP-complete even for perfect elimination bipartite graphs, and it is APX-complete for graphs with bounded degree 4 and for bipartite graphs with bounded degree 7. The paper also proposes a linear-time algorithm for computing a minimum outer-connected dominating set of a chain graph.

The second paper *Parameterized Algorithms for the H-Packing with t-Overlap Problem* by Alejandro López-Ortiz and Jazmín Romero introduces the k-H-Packing with t-Overlap problem to formalize the problem of discovering overlapping communities in real networks, and gives the first parameterized algorithm for the problem when H is an arbitrary graph of size r.

The third paper *Minimax Regret Sink Location Problem in Dynamic Tree Networks with Uniform Capacity* by Yuya Higashikawa, Mordecai J. Golin, and Naoki Katoh presents an $O(n^2 \log n)$ time algorithm for the minimax regret sink location problem in dynamic tree networks with uniform capacity, where n is the number of vertices in the network.

The fourth paper *Editing Simple Graphs* by Peter Damaschke and Olof Mogren studies the complexity of turning a given graph, by edge editing, into a target graph whose critical-clique graph is any fixed graph, and shows in a generic way that several variants of this problem are in SUBEPT.

The fifth paper *Practical SAHN Clustering for Very Large Data Sets and Expensive Distance Metrics* by Nils Kriege, Petra Mutzel, and Till Schäfer presents a new pivot based heuristic SAHN (Sequential agglomerative hierarchical non-overlapping) clustering algorithm exploiting the properties of metric distance measures in order to obtain a best-case runtime of $O(n \log n)$ for the input size n.

The sixth paper *Complexity of Disjoint Π-Vertex Deletion for Disconnected Forbidden Subgraphs* by Jiong Guo and Yash Raj Shrestha considers the computational complexity of Disjoint Π-Vertex Deletion, and shows that a few cases which are polynomial-time solvable, almost all other cases are NP-hard.

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.