A Novel Exact Heuristic Graph Coloring Algorithm based on Finding Independent Set

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Abstract

Vertex coloring is a graph coloring technique which has a wide application area to provide solution for many real world problems. The high computational complexity of graph coloring algorithm led the development of exact heuristic algorithm which can be executed in optimal time. This paper explores some existing graph coloring algorithms to propose taxonomy of exact graph coloring algorithm which is capable to execute large graphs also. This paper presented experimental result on DIMACS graph instances.

References

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p.98-105.
15. DIMACS Graph Instances, available at “http://mat.gsia.cmu.edu(COLOR/instances.html"

Index Terms

Computer Science
Algorithms

Keywords

Graph Coloring, independent set, exact algorithm, approximate algorithm, sequential algorithm and parallel algorithms.
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