

An Extraction and Expansion Approach for Graph Coloring

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R�sum� en anglais	This paper presents an extraction and expansion approach for the graph coloring problem. The extraction phase transforms a large graph into a sequence of progressively smaller graphs by removing large independent sets from the graph. The expansion phase starts by generating an approximate coloring for the smallest graph in the sequence. Then it expands the smallest graph by progressively adding back the extracted independent sets and determine a coloring for each intermediate graph. To color each graph, a simple perturbation based tabu search algorithm is used. The proposed approach is evaluated on the DIMACS challenge benchmarks showing competitive results in comparison with the state-of-the-art methods.
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Liens

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