

## Applying Sequential Pattern Mining to Generate Block for Scheduling Problems

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**Abstract :** The main idea in this paper is using sequential pattern mining to find the information which is helpful for finding high performance solutions. By combining this information, it is defined as blocks. Using the blocks to generate artificial chromosomes (ACs) could improve the structure of solutions. Estimation of Distribution Algorithms (EDAs) is adapted to solve the combinatorial problems. Nevertheless many of these approaches are advantageous for this application, but only some of them are used to enhance the efficiency of application. Generating ACs uses patterns and EDAs could increase the diversity. According to the experimental result, the algorithm which we proposed has a better performance to solve the permutation flow-shop problems.

**Keywords :** combinatorial problems, sequential pattern mining, estimation of distribution algorithms, artificial chromosomes

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