Abstract

This paper conducts experimental tests to study the stagnation behavior the Interacted Multiple Ant Colonies Optimization (IMACO) framework. The idea of different ant colonies use different types of problem dependent heuristics has been proposed as well. The performance of IMACO was demonstrated by comparing it with the Ant Colony System (ACS) the best performing ant algorithm. The computational results show the dominance of IMACO and that IMACO suffers less from stagnation than ACS.

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Ant colony optimization, combinatorial optimization problems, search stagnation.