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A new neighborhood based Memetic algorithm for permutation flowshop scheduling problem. (Chinese. English summary) [Zbl 1289.90089](#)
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Summary: The permutation flowshop scheduling problem (PFSP) is a kind of classical production scheduling problem, which is NP-hard. The traditional optimization method cannot be adopted to solve large scale problems. Therefore, this paper proposes a Memetic algorithm for the PFSP, in which a new neighborhood structure based on NEH is developed. In addition, the size of the neighborhood is dynamically adjusted during the search process. The computational results on Benchmark problems show that the proposed Memetic algorithm is effective and superior to a particle swarm optimization in the literature.

MSC:

90B35 Deterministic scheduling theory in operations research

68T20 Problem solving in the context of artificial intelligence (heuristics, search strategies, etc.)

Keywords:

[permutation flowshop scheduling](#); [NEH neighbourhood](#); [Memetic algorithm](#)