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# A multi-objective evolutionary algorithm based on Pareto prediction for automatic test task scheduling problems

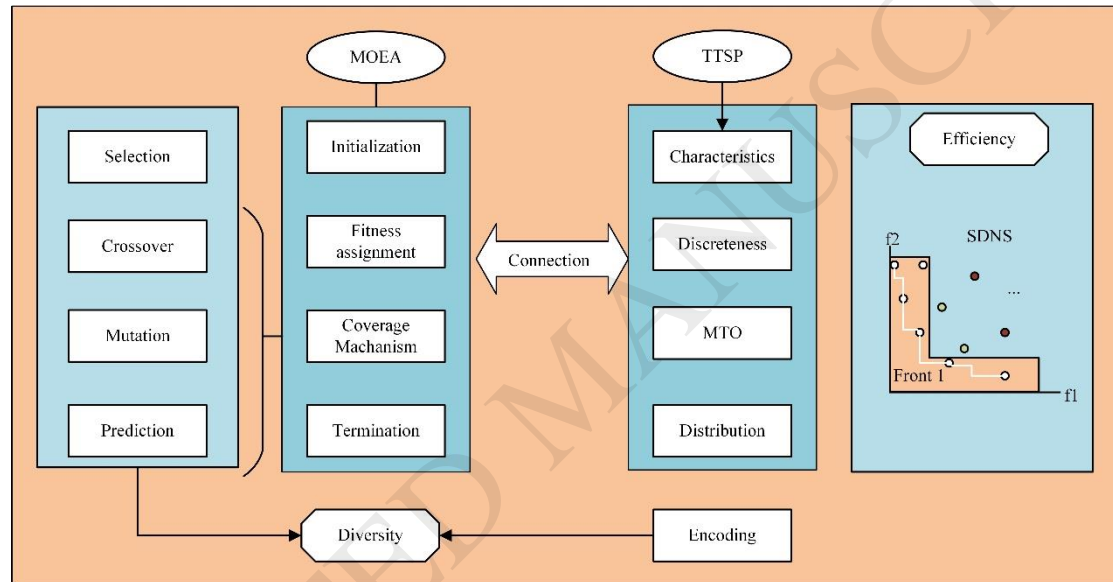
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Graphical abstract



## Research Highlights:

- A multi-objective evolutionary algorithm based on Pareto prediction is proposed fully considering the characteristics of the test task scheduling problem.
- A pure elitism mechanism and a fast non-dominated sorting based on scale-down (SDNS) method are proposed to improve efficiency and provide more opportunities to explore better solutions.
- An effective encoding scheme with different ranges for different scale instances is researched to greatly improve the diversity of newborn population.
- A Pareto predictive strategy is proposed to fully utilize historical information.

## Abstract

The test task scheduling problem (TTSP) is a combinatorial optimization problem still under

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