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The Application of Pareto Local Search to the Single-Objective Quadratic Assignment Problem

Authors : Abdullah Alsheddy

Abstract : This paper presents the employment of Pareto optimality as a strategy to help (single-objective) local search escaping local optima. Instead of local search, Pareto local search is applied to solve the quadratic assignment problem which is multi-objectivized by adding a helper objective. The additional objective is defined as a function of the primary one with augmented penalties that are dynamically updated.

Keywords : Pareto optimization, multi-objectivization, quadratic assignment problem, local search
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