

COMPARISON OF EPSILON-CONSTRAINT ALGORITHMS FOR A BI-OBJECTIVE CVRP

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Abstract

This presentation addresses the Bi-objective Capacitated Vehicle Routing Problem. Routing problems are a class of optimization problems with significant real-world applications, often involving conflicting objectives, and are inherently challenging to solve. We conduct a computational study using benchmark instances from the literature to compare the exact epsilon-constraint methods proposed by Mavrotas (2013) and Mesquita-Cunha et al. (2023) with a novel approach that enhances these methods by incorporating warm starts derived from supported non-dominated points and constructive and improvement heuristics.