



# Intensification-driven tabu search for the minimum differential dispersion problem

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Résumé en anglais The minimum differential dispersion problem is a NP-hard combinatorial optimization problem with numerous relevant applications. In this paper, we propose an intensification-driven tabu search algorithm for solving this computationally challenging problem by integrating a constrained neighborhood, a solution-based tabu strategy, and an intensified search mechanism to create a search that effectively exploits the elements of intensification and diversification. We demonstrate the competitiveness of the proposed algorithm by presenting improved new best solutions for 127 out of 250 benchmark instances (>50%). We study the search trajectory of the algorithm to shed light on its behavior and investigate the spatial distribution of high-quality solutions in the search space to motivate the design choice of the intensified search mechanism.

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