



## A Dedicated Genetic Algorithm for Two-Dimensional Non-Guillotine Strip Packing

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Résumé en anglais	<p>This paper introduces DGA, a new dedicated genetic algorithm for a two-dimensional (2D) non-guillotine strip packing problem (2D-SPP). DGA integrates two key features: a hierarchical fitness function and a problem-specific crossover operator (WAX for "wasted area based crossover"). The fitness function takes into account not only the final height of the strip (to be minimized), but also the wasted areas. The goal of the meaningful (and "visual") WAX crossover operator is to preserve the good property of parent packing configurations. To assess the proposed DGA, experimental results are shown on a set of well-known zero-waste benchmark instances and compared with previously reported genetic algorithms as well as the best performing meta-heuristic algorithms.</p>
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