An exact formulation for three-dimensional binpacking with transportation constraints

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Packing a set of items into a minimum number of bins is a daily process in many fields such as transport. This problem belongs to the bin packing problems (BPP), which represent a well-known topic in combinatorial optimization. BPP is here studied in three dimensions with specific constraints such as the even distribution of the weight or fragility. We have written an exact model for the 3D-BPP. Numerical experiments have been performed using a standard B&C library.