A branch-and-cut algorithm for the symmetric two-echelon capacitated vehicle routing problem - DTU Orbit (03/01/2019)

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This paper presents an exact method for solving the symmetric two-echelon capacitated vehicle routing problem, a transportation problem concerned with the distribution of goods from a depot to a set of customers through a set of satellite locations. The presented method is based on an edge flow model that is a relaxation and provides a valid lower bound. A specialized branching scheme is employed to obtain feasible solutions. Out of a test set of 93 instances the algorithm is able to solve 47 to optimality surpassing previous exact algorithms.

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