



## Backbone guided tabu search for solving the UBQP problem

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Auteur	Wang, Yang [1], Lü, Zhipeng [2], Glover, Fred [3], Hao, Jin-Kao [4]
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Résumé en anglais	We propose a backbone-guided tabu search (BGTS) algorithm for the Unconstrained Binary Quadratic Programming (UBQP) problem that alternates between two phases: (1) a basic tabu search procedure to optimize the objective function as far as possible; (2) a strategy using the TS notion of strongly determined variables to alternately fix and free backbone components of the solutions which are estimated likely to share values in common with an optimal solution. Experimental results show that the proposed method is capable of finding the best-known solutions for 21 large random instances with 3000 to 7000 variables and boosts the performance of the basic TS in terms of both solution quality and computational efficiency.
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