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Interior-point algorithms for Dantzig and Wolfe decomposition principle. (English)

Zbl 1015.90086

Hadjisavvas, Nicolas (ed.) et al., Advances in convex analysis and global optimization. Honoring the memory of C. Caratheodory (1873-1950). Dordrecht: Kluwer Academic Publishers. Nonconvex Optim. Appl. 54, 473-485 (2001).

The authors present algorithms to solve the problem originated from the application of the Dantzig and Wolfe decomposition principle to linear programming problems. One algorithm requires the sub-problems completely solved at each iteration and the other uses sub-optimal solutions. Also, is presented a two-cut approach to save the excessive computation time in the restarting phase.

For the entire collection see [Zbl 0968.00020].

Reviewer: [Stefan Mititelu \(București\)](#)

MSC:

90C51 Interior-point methods

90C06 Large-scale problems in mathematical programming

90C57 Polyhedral combinatorics, branch-and-bound, branch-and-cut

Keywords:

large-scale problem; interior point; analytic center; cutting plane