Shmyrev, V. I.; **Safronova, I. A.**

A new method for optimization of the leasing payment problem. (Russian) Zbl 1059.91029

Sib. Zh. Ind. Mat. 7, No. 4, 148-162 (2004).

Summary: A new approach is under study to construction of an algorithm for solving optimization problems which appear in simulation of financial leasing. In [*V. I. Shmyrev* and *M. S. Osadchij*, Sib. Zh. Ind. Mat. 4, No. 2, 205–211 (2001; Zbl 0998.91028)] problems of this type were reduced to linear programming problems under additional complementarity assumptions posed on the chosen pairs of variables. In the paper under review, a similar reduction is made without additional complementarity assumptions but at the cost of a significant increase of the set of restrictions of the problem. The optimization algorithm proposed realizes the scheme of the well-known method of simultaneous solution of direct and dual problems. This fact makes it possible to take it into account that the resultant set of restrictions is degenerated but leads to a significant increase of the dimension of the problem which is overpassed, since the restriction required by the next iteration is generated by a simple procedure in the course of the process.

MSC:

91B26 Auctions, bargaining, bidding and selling, and other market models
91B28 Finance etc. (MSC2000)
90C05 Linear programming

Keywords:

quality of credit granting in leasing; competitive optimal leasing; optimal marketing strategy; convex function