BILEVEL PLANNING MODELS OF PUBLIC PRIVATE PARTNERSHIP.[1]

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In this talk we introduce new bilevel models which are originated from the area of planning of public-private partnership [1].

For some models, it is shown that they are NPO-hard, and the corresponding problem of the investor is NPO-complete [2]. So, if $P \neq NP$, then for these problems do not exist a polynomial approximation algorithm with guaranteed estimate of the relative deviation from the optimum. For one of these problems we developed some algorithms based on alternating heuristic and local search method [2].

Finally, we discuss some multicriteria bilevel models and present a brief review in this area.

REFERENCES

1. S.M. Lavlinsky *Public-private partnership on raw areas - environmental problems, models and perspectives.* - Problems of Forecasting, No. 1, 2010, pp. 99-111.
2. S.M. Lavlinsky, A.A. Panin, A.V. Plyasunov *The bilevel planning model of public private partnership.* - submitted to Automation and Remote Control

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