

عنوان مقاله:

Optimal Decision-Making in Fractional Multi-commodity Flow Problem in Uncertainty Environment

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خلاصه مقاله:

This paper seeks to address the multi-commodity flow problem in uncertainty conditions, in which the objective function of the problem is of fractional type. The cost coefficients and capacities of the problem are uncertain. The purpose of using uncertainty theory is to deal with unknown factors in the uncertain network. After stating the optimality conditions, the problem is transformed into a certain fractional multi-commodity flow problem by applying the uncertain chance-constrained programming approach. Then, the variable transformation approach is used to transform the nonlinear objective function to its linear form. Finally, two numerical examples are evaluated to verify the efficiency of the proposed formulation.

کلمات کلیدی:

Fractional programming, Uncertainty theory, Belief degree, Multi-commodity flow problem, Chance-constrained programming

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