

## ABSTRACTS

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### **DYNAMIC SIMULATION MODEL OF LEONTIEF' INTERBRANCH BALANCE**

Today is a very urgent problem is analysis and forecasting of dynamic properties of complex economic systems of different levels using simulation dynamic interbranch model. It requires the development of practical algorithms and applications, which provide the multivariate calculations of dynamic characteristics for multidimensional models of economic systems.

The peculiarity of the problem, which was solved by authors, is the lack of information about rates of increase of the index of growth of gross product, which necessary for solving a dynamic problem of interbranch balance in the first stage prediction. In this regard, the following algorithm for solving dynamic prediction under failure (inaccurate) initial data was proposed: the solution of the static problem of interbranch balance in order to find the period  $t+1$ ; the transition to a dynamic model of interbranch balance to determine the gross output of  $X$  at a given  $T^{\text{th}}$  forecast period. At this stage, as the initial data uses the results of calculations of the static problem of interbranch balance.

As a result, developed a simulation model can be used to solve static and dynamic problems of prediction, which is a confirmation of flexibility and universalism of the implementation instruments ( block simulation program Simulink / MatLab) as well as the algorithm, which was developed by authors .