Using input-output model with fuzzy parameteres for analysis of sectoral structure of Ukranian industrial region

Topic: Some important issues regarding the matrix
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Using input-output model for analysis of sectoral structure of Ukranian industrial region is considered under conditions of lack of information about the exact values of the input-output coefficients. Coefficients are represented as fuzzy parameters in this model. For that, the classification of coefficients of Donetsk region's input-output matrixes for 2001-2003 is made using cluster analysis; each class is defined as a fuzzy variable with its membership function. Assessment of adequacy of input-output model with fuzzy coefficients is implemented for the following cases: (1) analysis of the effect of changes in final demand of basic sectors onto the gross output of sectors in the Donetsk region; (2) analysis of the effect of raising wages in some sectors onto the prices in all region's sectors; (3) analysis of the effect of increasing energy prices onto prices of all other region's sectors.