

Название публикации:

The simulation of the system with the help of finite group of factors determining the system. P-properties of the system. Cayley tables and their role in modeling associative closed system with feedback

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Аннотация:

Communications among the systems factors are characterized by the interactions between the systems factors. In our case these are a binary operation of composition of the factors and an unary operation \square^{-1} , which characterized the feedback of the system. So Cayley table [1], of the group G_S of factors describing the system S plays an important role in describing the system's connections. In this chapter it is from this position we shall begin to consider the question of the sustainability of the system which is defined in fact by the internal structure of its connections, robust and interchangeability of structural resources. There after we shall continue to study the sustainability of the system in the Chap. 10 from the position of the usage of numerical characteristics associated with Cayley table of the group of factors determining the system. Some useful ideas can be find in [2, 3].

Ключевые слова:

Cayley table, Group of factors determining the system, Sustainability, Binary operations, Cayley table, Closed systems, Finite groups, Group of factors determining the system, Internal structure, Numerical characteristics, Unary operation, Sustainable development