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The Problem of General Systems Theory's Formalization

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Аннотация:

In this chapter, three basic questions are considered:

- what is the meaning of the concept of "formalization"?
- how to build a formalization, allowing one to obtain and justify meaningful results in the General theory of systems, not limited to empirical reasons?
- how to interpret the results of General systems theory to specific spheres of human activity, such as the General theory of training, IT-technology, Economy and Finance, as the link with almost all types of modern human activities (e-learning, IT, economics and finance)?

The key point for us here is the connection between logic and algebra. Shafarevich (Basic concepts of algebra. Izhevsk Republican Printing House, Izhevsk, 1999, [1]), observed that the present period of development of sciences is characterized by the mathematization of the science. Algebra has always occupied a leading position in mathematics.

Ключевые слова:

Formalization; Smart system theory; Algebraic systems