Conceptual basis of structuralist program of analysis of the scientific knowledge

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The structuralist program of scientific knowledge's justification is one of the most highly-developed options of set-theoretic strategy of formalization and axiomatization of scientific knowledge. One of the features of this version of the strategy is practical application of complicated mathematical apparatus. This fact tends to lead to incorrect understanding of strategy's substance. The paper is dedicated to detailed description of conceptual apparatus of the structuralist strategy of justification of scientific knowledge. Additionally, characteristics of informative prerequisites of the strategy are given.

Keywords: *axiomatization, formalization, structuralism, theory, potential model, partial potential model, real model*

REFERENCES

[1] Sneed J. Philosophical Problems in the Empirical Science of Science: A Formal Approach. *Erkenntnis*, 1976, no. 10, pp. 115–146.

[2] Sneed J. *The Logical Structure of Mathematical Physics*. Dordrecht, Reidel, 1971, 311 p.

[3] Stegmüller W. A Combined Approach to the Dynamics of Theories. *Theory and Decision*, 1978, no. 9, pp. 39–75.

[4] Stegmüller W. *The Structure and Dynamics of Theories*. New York, Springer Science, Business Media, 1976, 284 p.

[5] Balzer W., Moulines C., Sneed J. *An Architectonic for Science. The Structuralist Program.* Dordrecht, Reidel Publishing Company, 1987, 439 p.

[6] Balzer W., Moulines C.U. On Theoreticity. *Synthese*, 1980, no. 44, pp. 467–494.

[7] Moulines C.U. The Nature and Structure of Scientific Theories. *Metatheoria*, 2010, vol. 1, no. 1, pp. 15–29.

[8] Suppe F. *The Semantic Conception of Theories and Scientific Realism*. Urbana, University of Illinois Press, 1989, 485 p.

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