11	0. 11. 11. (0.4)
Назва	On the Use of Artificial Intelligence Systems for Scientific Search. P. 705-734. (2025).
	In book : Luntovskyy, A.,at.all. (eds) Networks and Sustainability. TCSET 2024.
	Lecture Notes in Electrical Engineering, vol. 1473. Springer, Cham. (
Автори	Abramov, G., Kuklin, V., Shapovalova, <b>O.</b> , Melnyk, I.
Теми:	artificial intelligence,
	CPU, GPU computing,
	symbolic methods, expert systems,
	recommender systems,
	computational graphs,
	mathematical logic,
	deep learning,
	Kolmogorov–Arnold networks,
	problem-solving
Дата публікації:	2025
Бібліографічний	Abramov, G., Kuklin, V., Shapovalova, O., Melnyk, I. (2025). On the Use of Artificial
опис:	Intelligence Systems for Scientific Search. P. 705-734. In book: Luntovskyy, A.,at.all.
	(eds) Networks and Sustainability. TCSET 2024. Lecture Notes in Electrical
	Engineering, vol. 1473. Springer, Cham.
Короткий огляд	The possibility of involving artificial intelligence systems in working with researchers
(реферат):	in the framework of scientific research is discussed. For this purpose, three stages of
	artificial intelligence participation in solving these problems are identified. The first is
	the collection of materials and developments on the identified problem. The second
	stage of scientific research is the formation of a cycle of auxiliary tasks to clarify the
	connections between concepts and ideas, identifying qualitative and quantitative
	dependence. This will require an interactive mode of coordinating the formulations
	of these problems and clarifying the results. At the third stage, a synthesis of the
	obtained data and knowledge should be carried out to form a complete scientific
	theory. In addition to using language models, in particular, at the first stage of data
	collection, it becomes possible to involve Kolmogorov-Arnold networks to identify the
	dependence between variables in an analytical-symbolic form at the last stages of
	scientific research. The procedures for synthesizing an array of data and knowledge
	require clarification to orient artificial intelligence networks when comparing all
	knowledge obtained at the second stage of scientific research with known formed
	The state of the s