RESEARCH ARTICLE | FEBRUARY 27 2026

Enhancing AI with fractal geometry for advanced data compression

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— Author & Article Information

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AIP Conf. Proc. 3348, 030011 (2026)
https://doi.org/10.1063/5.0296142

Efficient data transmission is still a major barrier, even as artificial intelligence (AI) has become essential to solving complicated problems. In order to accomplish accurate and scalable data and image compression, this work investigates the use of fractal geometry in artificial intelligence. The study shows how techniques like iterated function systems (IFS) can effectively compress complicated facts and graphics by utilizing the basic fractal trait of self-similarity. The project focuses on using sophisticated fractal algorithms to improve AI performance in domains including data transport, archiving systems, and multimedia storage. By providing precise, scalable, and effective compression that is suited to complex datasets and graphics, this method tackles important AI problems and opens the door for the development of AI-driven solutions that are optimized.

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