Special Issue Chaos Computing at Al Age

Message from the Guest Editors

The quantum theory, the theory of relativity, and chaos theory are the three fundamental discoveries of the 20th century. However, the worldwide theoretical interest in the traditional chaos seems to wane except for several few-and-far-between practical application attempts. In recent years, there has been a notable resurgence in chaotic research with the fast development of artificial intelligence (AI), specifically deep learning technology. In this Special Issue, we cordially invite colleagues to submit their recent results on the chaos by using modern AI approaches. What step the AI can lead to the chaotic determination and prediction, its mechanism, and the application condition and scope of application are all preferred in the issue. We believe that your contribution will benefit the chaos research community as a whole. Potential topics include but are not limited to the following:

Machine learning and chaos;

- Chaos and swarm intelligence;
- Chaos in recurrent neural networks;
- Chaos-based optimization algorithms;

Al-based techniques in chaotic dynamics prediction; Machine learning in chaos-based encryption algorithms; Security enhancement for chaos- and Al-based encryption algorithms.

Guest Editors

Prof. Dr. Mingwei Sun Prof. Dr. Li Xiong Prof. Dr. Shijian Cang Dr. Hao Sun

Deadline for manuscript submissions

closed (20 July 2025)



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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Editor-in-Chief

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