Special Issue

Memristor Cellular Nonlinear Networks: Theory and Applications

Message from the Guest Editors

Dear colleagues, Further development of memristor-based cellular nonlinear networks (MCNN), including conventional applications, is necessary from the point of view of the current market need for new nanoelectronic circuit architectures. MCNNs working on the edge of chaos can exhibit very complex behavior. The application of a new excitable medium in investigations to detect the global motion of excitable waves, and transferring this to the analysis of more complex systems such as brain networks and social networks, is particularly challenging. In this Special Issue, the following topics will be covered: - MCNNs operating on edge of chaos;
- Simulations of MCNNs operating on edge of chaos regime;
- Pattern formation in MCNN models;
- Simulation of MCNNs operating on edge of chaos regime;
- Applications of MCNNs. Theoretical and simulation results for MCNNs will be in complete concordance, demonstrating that conventional, very large-scale integration technology could be an ideal medium for studying the complex behavior of different models.

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Deadline for manuscript submissions

closed (31 May 2024)

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.6

mdpi.com/si/84115

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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.

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