Dynamical systems with Hidden Attractors

PURPOSE AND SCOPE OF TOPIC

It is known from the nonlinear theory that a self-excited attractor has a basin of attraction that is associated with an unstable equilibrium, while a hidden attractor has a basin of attraction that does not contain the stable and unstable manifolds of any unstable equilibrium point. Almost all famous chaotic attractors are self-excited, while recently many researchers have proposed new interesting chaotic systems with hidden attractors. In case of the two-dimensional systems, hidden oscillations can be investigated using analytical methods. However, for the study of stability and oscillations in nonlinear multidimensional systems numerical methods are often used. Furthermore, implementation and realization of hidden attractors with discrete and analog ICs have been studied recently. However, implementation of such systems is still a challenge.

This symposium provides a platform for researchers to exchange ideas in recent development and advances in dynamical systems with Hidden Attractors. All papers will be peer-reviewed, and upon acceptance, they will be published in the special issue of Journal of Vibration Testing and System Dynamics and Journal of Discontinuity, Nonlinearity and Complexity. Manuscripts are solicited in the following topics but not limited to:

- Novel systems with Hidden Attractors
- Dynamical behavior of systems with Hidden Attractors
- Analytical and numerical tools that help us investigate Hidden Attractors
- Bifurcation analysis and multistability of systems with Hidden Attractors
- Fractional order Hidden Attractors
- Synchronization schemes of systems with Hidden Attractors
- Control of systems with Hidden Attractors
- Cryptography and secure communication schemes using Hidden Attractors
- Circuitry implementation of systems with Hidden Attractors
Applications of systems with Hidden Attractors

SYMPOSIUM ORGANIZERS

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IMPORTANT DATES

Submission of Abstracts Deadline September 15, 2020
Contribution Acceptance Notification September 30, 2020
Submission of PowerPoint Presentations Deadline November 20, 2020
Conference November 23-25, 2020, Central Time Zone, USA
Submission of Full-Length Papers Deadline January 30, 2021
Peer-Reviews Completed February 15, 2021
Revised Paper Resubmission Deadline March 30, 2021
Acceptance Notification April 15, 2021