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Applications of Chaos Theory to Complex Systems Analysis in Engineering

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Message from the Guest Editors

This Special Issue focuses on publishing new and improved techniques to analyze low-dimensional chaotic dynamics, as well as complex interacting systems (e.g., flocks and networks), mainly presenting how chaos theory empowers engineers to navigate challenges, predict and manage unpredictability, optimize performance, drive innovation, and build robust and resilient systems.

The authors are encouraged (but not limited) to discuss entropy-related aspects of chaos theory, for example, entropy and information theory, sensitivity to initial conditions, entropy as a measure of uncertainty, chaos in statistical mechanics, and quantification of chaos and entropy. Common applications of entropy and chaos theory in engineering are as follows:

- Dynamical system analysis;
- Vibrational analysis;
- Fluid dynamics;
- Control systems;
- Communication systems;
- Environmental engineering;
- Electronic circuits;
- Secure communication and cryptography;
- Energy and power systems;
- Aeronautics and space exploration;
- Biomedical engineering;
- Materials science;
- Quality control.

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Editor-in-Chief

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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

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