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Chaos-Based Communication Systems

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Message from the Guest Editors

Dear Colleagues,

The application of chaotic systems in communications has been extensively explored over the last several decades. Chaotic systems are used as an efficient, deterministic high-entropy source that can mask information signals for safe transmission through public channels. They can also be used is relevant security related applications like watermarking and cryptography.

The aim of this Special Issue is to present recent developments in chaos-based communication systems. Contributions can address any type of chaotic system, and any relevant application. Novel methodologies and experimental implementations are welcome. Review articles are also invited.

Potential topics include but are not limited to the following:

- Chaos-based secure communications;
- Chaos-based modulation techniques;
- Chaos and cryptography;
- Chaotic optical communication systems;
- Data encryption;
- Nonlinear circuits for chaos-based communications;
- Statistical analysis and optimization of chaos-based communications;
- Synchronization and control of chaotic systems;
- Watermarking;
- 5G and next-generation chaos-based wireless communication.

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