



Topology Modeling and Fault Analysis of Complex Systems

Guest Editors:

Dr. Fan Yang

Department of Automation,
Tsinghua University, Beijing
100084, China

Dr. Wenkai Hu

School of Automation, China
University of Geosciences, Wuhan
430074, China

Deadline for manuscript
submissions:

closed (30 July 2024)

Message from the Guest Editors

This Special Issue, entitled “Topology Modeling and Fault Analysis of Complex Systems”, aims at discussing recent advances, collecting new ideas, and presenting excellent research outcomes related to topology modeling, fault diagnosis, alarm monitoring, health management, and root cause analysis in complex systems. Specifically, this Special Issue will accept unpublished research papers focusing on (but not restricted to) the following topics:

- Knowledge-based or information-theory-based topology modeling;
- Entropy-based techniques for causality analysis;
- Data-driven fault detection, diagnosis, and isolation;
- Deep learning for system monitoring, soft sensing, and fault diagnosis;
- Causality inference for root cause analysis;
- Prognostics and health management of complex equipment;
- Advanced alarm monitoring and alarm system design;
- Applications of topology modeling and fault analysis in complex systems.





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Editor-in-Chief

Prof. Dr. Kevin H. Knuth

Department of Physics, University
at Albany, 1400 Washington
Avenue, Albany, NY 12222, USA

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.

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Entropy Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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