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# Mechanism Research and Artificial Intelligence for the Monitoring and Evaluation of Electrical Equipment in Smart Grids and Electrified Transportation

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### **Message from the Guest Editors**

Dear Colleagues,

Smart grids and electrified transportation are important areas for attempts to significantly reduce fossil fuel-based energy production and, in so doing, protect the environment. Electrical equipment is an important part of smart grids and electrified transportation and, should important electrical equipment fail, this can lead to largescale power outages and traffic disruption, resulting in enormous economic losses and accidental damage or injury. Therefore, proper performance evaluation of the electrical equipment used in smart grids and electrified transportation has come to be of great social significance. The booming development of artificial intelligence and symmetry theory, combined with mechanism research, will help researchers develop new technologies for the monitoring and evaluation of electrical equipment, thereby improving the economy and safety of smart grids and electrified transportation.



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### **Editor-in-Chief**

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### Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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