



*symmetry*



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## Advanced Technologies in Power Quality and Power Disturbance Data Application

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### Message from the Guest Editors

Dear Colleagues,

The electrical power system can be regarded as a comprehensive symmetrical system of power supply and power consumption, with load microelectronics technology as the core of a large number of new technologies, emerging industries, and proposed intelligent electricity power systems. Users have put forward higher and higher requirements for power quality (PQ). The most commonly seen PQ events are associated with sags (dips), harmonics/interharmonics, transients, and asymmetrical variations. PQ is related to the safe and stable operation of the power system and users' consumption of high-quality electricity. Therefore, the monitoring, prevention, and mitigation of PQ disturbances are of great concern for both parties. To achieve these goals, many PQ issues still remain as challenging tasks to be overcome. Meanwhile, with the widespread use of power quality monitoring tools, more and more users and developers have started to realize that power disturbances can carry valuable information about the conditions of a system and its equipment. As a result, initiatives that explore the “useful” aspects of power disturbances have emerged.



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# Special Issue



## 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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