



New Developments in Guided Waves (GW) and Nondestructive Testing (NDT): Propagation, Design and Applications

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Message from the Guest Editors

Guided waves in thin-walled structures have generated growing interest in the nondestructive testing field over the past several decades due to their long-distance propagation capacity, cost-effective actuating and sensing, and high sensitivity to various kinds of damage. There are two groups of wave modes in plates and shell components, that is, symmetric modes and anti-symmetric modes, which are divided according to the symmetry of particle motion. The physical properties of guided-wave propagation (i.e., multimodal, dispersive, scattering, attenuation, etc.) can advantageously be used in material characterization, nondestructive evaluation, and structural health monitoring.....The present Special Issue of *Symmetry* seeks new findings and novel developments of guided-wave-related methods and techniques. Toward this end, we welcome the submission of articles on the following topics: theoretical modeling, simulation, measurement and signal processing, and damage visualization. Articles on other relevant topics, including smart materials, acoustic sensors, and innovative applications, are also welcome.





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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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