



Non-destructive Evaluation of Composite Structures with Focus on Ultrasonic Testing

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Message from the Guest Editors

The ultrasonic-guided wave-based inspection technique is a very promising method for non-destructive testing (NDT) and structural condition monitoring. Different types of guided waves can propagate in any confined medium and include the well-known Rayleigh waves in half-space and Lamb waves in plates.

Nowadays, composite materials are very widely used in various sectors. In most cases, the structure manufactured from such composites must be very robust. Exploitation of the products and structures with defects may lead to events with human injuries and even losses.

The purpose of this Special Issue is to apply ultrasound-guided Lamb waves for the characterization and non-destructive evaluation of composite structures.

Possible topics of interest include, but are not limited to, the following:

Methods of excitation and reception of guided Lamb waves in sheet-type composites structures;

Phased ultrasonic arrays for excitation and reception of Lamb wave modes;

Lamb wave modes with various types of defects in composites structures;

Numerical simulation of interaction of Lamb wave modes with various types of defects based on FEM in planar composites structures.





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Message from the Editor-in-Chief

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