

## Special Issue

# Composite Thin-Walled Structures: Stability and Damage

### Message from the Guest Editor

Thin-walled composite and hybrid members are vital to lightweight structures, yet their anisotropy and layup sensitivity challenge stability and damage tolerance. This Special Issue calls for research on buckling, post-buckling, vibration, fatigue, and damage in such systems. We welcome contributions that bridge mechanics, efficient modeling, and experiments. Topics include: reduced-order approaches like Generalized Beam Theory (GBT) for global and local modes in laminates; coupling beam formulations with FE, XFEM, or machine learning surrogates; studies on imperfection sensitivity and damage progression; full-field techniques (e.g., DIC); and probabilistic design. Applications span aerospace, civil, marine, and energy sectors where resilience is critical. This Issue aims to consolidate advances and outline future priorities for robust design by uniting theorists, modelers, and experimentalists.

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### Guest Editor

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### Deadline for manuscript submissions

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## Journal of Composites Science

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