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VIBRATION PROBLEMS IN STRUCTURES

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ABSTRACT

Current slender structures such as buildings, industrial pavilions, gymnasia, concert halls, stadiums, bridges, footbridges, towers, masts and chimneys can be severely affected by vibrations. The response of these structures to different dynamic loads can cause either serviceability problems, reducing people's comfort to an unacceptable level, or safety problems involving danger of failure.

This mini-symposium aims at providing a discussion forum on recent advances in the area of structural vibrations and focuses on numerical modelling approaches, practical examples, mitigation techniques, comfort criteria and fatigue effects.

The mini-symposium is targeting academic researchers and practitioner engineers to bring together interdisciplinary proposals leading to the development of innovative engineering solutions.

Contributions are expected –but not limited- on vibration problems induced by humans, wind, traffic, machines (rotations, oscillations and impacts) and construction and industrial activities. Besides the specific issues related with vibration sources, structural behaviour, comfort and fatigue, and vibration mitigation methods will be covered by the mini-symposium.