

Wave propagation and structural dynamics

Scientific area: Computational Solids And Structural Mechanics

This minisymposium serves as a means to discuss recent developments in numerical methods for linear and non-linear dynamics and wave propagation. Given the ever-evolving demands of engineering applications in a myriad of fields, we are given the challenging opportunity to improve existing methods and investigate new ones.

Topics of interest include (but are not limited to): discretization of large-scale domains using finite elements, finite volumes, isogeometric analysis and others, high-order methods, time-stepping schemes, space-time finite elements, fictitious domain methods, semi-analytical approaches. These methods are applicable to a wide range of problems in fields such as acoustics, seismic waves, ultrasound, soil-structure interaction, guided waves, structural vibrations, inverse problems and optimization based on the wave equations, and others.

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