

Meshless Methods for Elastodynamic Problems

Scientific area: Computational Solids And Structural Mechanics

The meshless methods, as an alternative to the mesh-based approaches, started to capture the interest of a broader community of researchers over the last decades. In meshless methods, there is no inherent reliance on a particular mesh topology which is associated with simpler formulations and computational implementation procedures of the method. The main benefits that the meshless methods provide can be summarised as the simplicity in the numerical formulation and, subsequently, in the algorithm implementation, enhanced computational efficiency with respect to the mesh-based approaches and, lower computer memory requirements. The meshless methods have been proven to be effective for various problems i.e., elastodynamics, where due to their mentioned advantages, they have gained momentum from both academia and industry.

Research papers covering meshless methods for elastodynamic problems are welcome. The following list provides topics of particular interests:

- advanced implementation of meshless methods
- adaptive meshless methods
- application of meshless methods in realistic problems
- domain decomposition techniques in meshless contexts
- hybrid meshless approaches

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