

THE MLPG METHOD FOR A VISCOELASTIC 2D PROBLEM WITH DIFFERENT LOADS

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ABSTRACT

The meshless local Petrov-Galerkin methods (MLPG) have originated by Atluri and al (1998). It is derived from the local weak form (WF) of the equilibrium equations and by inducting the moving last square approach for trial and test functions in (WF).

The Laplace transform is used to eliminate the time dependence of the field variables for the transient. A weak formulation with a unit step function transforms the set of governing equations into local integral equations on local subdomains.

Unknown Laplace-transformed quantities, including displacements of solid by Stehfest's algorithm (1970) are inversion technique. Several numerical results are investigated for type of load.