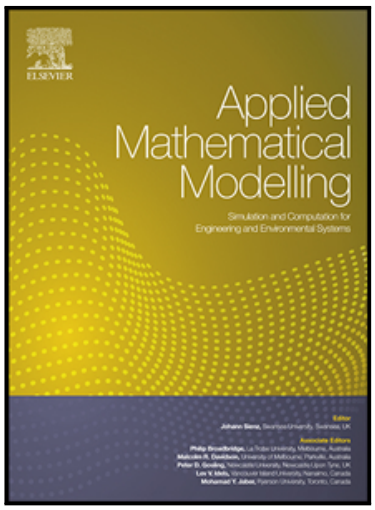

Nonlinear analyses of FGM plates in bending by using a modified radial point interpolation mesh-free method

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Highlights

- Modified mesh-free radial point interpolation method was presented and verified.
- New normalized radial basis function was introduced to build the shape functions
- Higher-order shear deformation plate theory was incorporated into the mesh-free method.
- Nonlinear bending analyses of functionally graded material plates were performed.
- The modified mesh-free method can effectively predict the nonlinear bending behavior.