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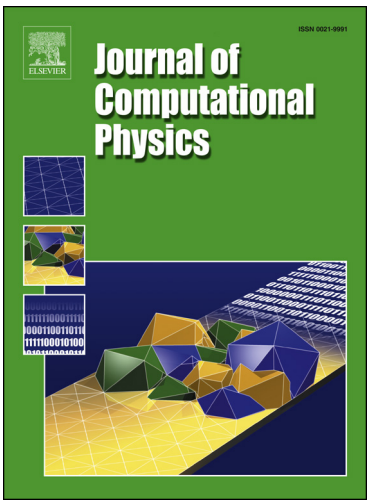

A Dirichlet-to-Neumann finite element method for axisymmetric elastostatics in a semi-infinite domain

Eduardo Godoy, Valeria Boccardo, Mario Durán

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Highlights

- A numerical method for elasticity in axisymmetric semi-infinite domains is proposed
- The method couples finite elements with Dirichlet-to-Neumann boundary conditions
- The lack of an explicit closed-form expression for the DtN map needs to be overcome
- This is done by using a procedure that combines analytical and numerical techniques
- The numerical experiments confirm the effectiveness and accuracy of the method

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