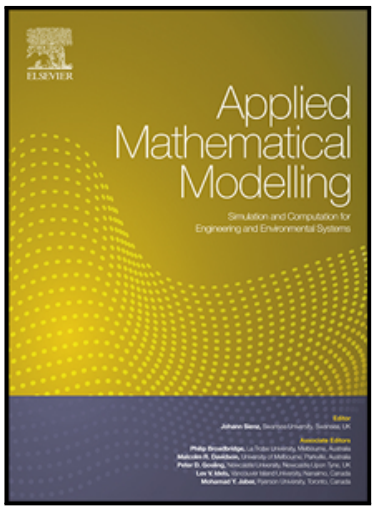

Analytical bounds for the electromechanical buckling of a compressed nanocantilever

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Highligths

- We obtain novel and accurate analytical bounds for the pull-in parameters of a compressed nanocantilever
- The interaction between electrostatic, surface, and axial forces is investigated
- The analytical predictions closely agree with numerical results obtained by shooting method
- The analytical bounds are very useful for validating numerical and approximated methods
- The approach may also include the effects of surface elasticity and residual stresses