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### Size-Dependent Free Vibration Analysis of Nanoshells Based on the Surface Stress Elasticity

H. Rouhi , R. Ansari , M. Darvizeh

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## Highlights

- Developing a size-dependent shell model for the vibrations of cylindrical nanoshells
- Considering the surface stress effect using the Gurtin-Murdoch theory
- Deriving the governing equations including surface effects via Hamilton's principle
- Proposing an analytical solution for nanoshells with different end conditions
- Studying the surface stress effect and influences of surface material properties

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