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A variational approach for large deflection of ends supported nanorod under a uniformly distributed load, using intrinsic coordinate finite elements

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Highlights

- Very large deflection is presented by using intrinsic coordinate finite elements.
- The Lagrange multiplier technique is applied to impose the boundary condition.
- The finite element method is used for the numerical solution of the nonlinear system.
- The coupled effects of nonlocal elasticity and surface stress are included.

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