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Analytic solution for a circular nano-inhomogeneity with interface stretching and bending resistance in plane strain deformations

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### Highlights

- Contribution of bending resistance of interfacial region in composites
- Surface elasticity theory applied to inhomogeneity-matrix system
- Resulting analysis of stress field in the composite and in the inhomogeneity
- Interface bending resistance does not influence interfacial tractions in the inhomogeneity
- Interfacial tractions in the matrix strongly influenced by softer inhomogeneity

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