

A Note on Two Different Definitions of Reference Surface of Deformed Rubber-Like Shells

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Summary

Abstract : The mid surface of undeformed rubber-like shells undergoing finite rotations and finite strains has been considered to be the reference surface of the undeformed configuration. There have been two different definitions for the reference surface of deformed rubber-like shells, undergoing finite rotations and finite strains, used by several researchers. In this study, some comments on the stress-resultants defined relative to the mentioned two reference surfaces of deformed incompressible rubber-like shells under axisymmetrical effects, considering transverse normal and transverse shear deformations, are presented.

Key words : rubber-like shell, finite strain, finite rotation, finite deformation, reference surface.

