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**A problem of plane finite deformation of hyperelastic material.** (Italian. English summary)

Zbl 0799.73033

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Summary: For the infinite strip of a thick plate, subjected to finite compression in the transverse direction, equilibrium states in the neighborhood of the basic configuration are examined by use of John's theory [*F. John*, Commun. Pure Appl. Math. 13, 239-296 (1960; Zbl 0094.370)] of plane finite deformation of a hyperelastic body. Computation reveals instabilities.

**MSC:**

74B20 Nonlinear elasticity

74K20 Plates

**Keywords:**

John's theory; infinite strip; thick plate; equilibrium states