Dedicated to Professor LAZĂR DRAGOŞ on his 75th birthday

# The study of bifurcation equations for a prestressed hyperelastic material

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**Abstract -** The incremental deformation of a rectangular plate of compressible isotropic hyperelastic material subjected to on underlying pure homogeneous strain is considered. A new method for the deduction and analysis of the bifurcation equations of the solutions for equilibrium system is given.

**Key words and phrases :** equilibrium system, hyperelastic material, bifurcation equations.

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