

Topological methods in nonlinear elasticity

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We consider degree-theoretic methods for proving the existence of “solutions in the large” in global continuation/bifurcation problems of nonlinear elasticity. The talk focuses on establishing the necessary ingredients for the employment of certain generalized nonlinear Fredholm degrees, viz., a linearized Fredholm property, local properness, and linearized spectral conditions (the latter for bifurcation problems only).