

**Mission $p < n - 1$: possible - nonlinear elasticity
beyond conventional limits**

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We prove the lower semicontinuity of a Neohookean-type energy for a model of Non-linear Elasticity that allows, for the first time, for $p < n - 1$. Our class of admissible deformations consists of weak limits of Sobolev $W^{1,p}$ homeomorphisms. We also introduce a model that allows for cavitations by studying weak limits of homeomorphisms that can open cavities at some points. In this model we add the measure of the created surface to the energy functional and for this functional we again prove lower semicontinuity.