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**Higher-order elastics and elastic hulls.** (English) Zbl 1283.49061  
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Summary: By higher-order elastics we mean solutions of the problem to minimize integrals of quadratic forms of curvatures of multidimensional curves. Differential equations of second-order elastics (minimizing a quadratic form of the curvature and torsion of the curve) are obtained. Surfaces minimizing integrals of the squared Gaussian curvature are found.

**MSC:**

49Q20 Variational problems in a geometric measure-theoretic setting

Cited in 2 Documents

**Keywords:**

integral minimization; quadratic forms; multidimensional curves; curvature; torsion

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