1004-35-91 **Xiaodong Yan*** (`xiayan@math.msu.edu`), Department of Mathematics, Michigan State University, East Lansing, MI 48823, and **Jonathan Bevan** (`bevan@maths.ox.ac.uk`), Oxford University. *An example in 2-D nonlinear elasticity.*

In this paper, we present examples of functionals in the form $\int_\Omega \gamma(\nabla u)$ where a given stationary solution is the unique minimizer in a subclass of all admissible maps. Here Ω is a bounded domain in $2 - D$ and u is a mapping from Ω to R^2. $\gamma(P)$ approaches infinity if $\det P \leq 0$. The interesting feature of our example is that the boundary constraint is not linear nor close to stress free state. Moreover, our minimizer is C^1 and the determinant of its gradient vanishes at an interior point. (Received January 18, 2005)