1023-49-205 **Tadele Mengesha*** (mengesha@temple.edu) and **Yury Grabovsky**. *Sufficient conditions for smooth strong local minimizers.*

We study the stability of solutions of the Euler-Lagrange equation for a variational integral with a polynomial growth. We prove that uniform quasiconvexity and uniform positivity of the second variation are sufficient for C^1 solutions to be strong local minimizers. Our approach is based on evaluating the integral increment corresponding to a general strong variation. The main device used is a decomposition theorem that enable us to write a strong variation as a sum of weak and strong parts. The conditions imply these parts contribute nonnegative terms to the increment. (Received September 06, 2006)