1067-49-858   **Kyle W. Fey*** (`s-kfey2@math.unl.edu`), 4151 Normal Blvd. Apt. 13, Lincoln, NE 68506, and **Mikil Foss**. *Morrey regularity for almost minimizers of nonconvex functionals with $p(x)$ growth.*

I will present global Morrey regularity results for minimizers of functionals with the form

$$u \mapsto \int_\Omega f(x, u(x), \nabla u(x)) dx.$$

For each x and u, the function $F \mapsto f(x, u, F)$ is assumed to behave like $F \mapsto |F|^{p(x)}$ whenever $|F|$ is sufficiently large. These variational problems arise in certain models for electro-rheological fluids and thermistors. The regularity results are valid up to the boundary provided that the boundary data is sufficiently smooth. (Received September 15, 2010)

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