1035-49-2029   **M. Zuhair Nashed*** (`znashed@mail.ucf.edu`), Department of Mathematics, University of Central Florida, P.O. Box 161364, Orlando, FL 32816. *Global invertibility for ray-proper and related operators in optimization and nonlinear functional analysis.* Preliminary report.

We present some extensions of global inverse mapping theorems involving monotone and ray-proper mappings in Banach spaces, and indicate applications to global optimization of smooth potential functionals. (Received September 26, 2007)