1019-35-49 **AN H LE*** (anle@cc.usu.edu), AN LE, DEPARTMENT OF MATHEMATICS AND STATISTICS, 3900 OLD MAIN HILL, LOGAN, UT 84322. *On the local Hölder continuity of the inverse of the p-Laplace operator.*

We prove an interpolation type inequalities between C^α, L^∞ and L^p spaces and use it to establish the local Hölder continuity of the inverse of the p-Laplace operator: $\|(-\Delta_p)^{-1}(f) - (-\Delta_p)^{-1}(g)\|_{C^1(\bar{\Omega})} \leq C\|f-g\|^\tau_{L^\infty(\Omega)}$, for any f and g in a bounded set in $L^\infty(\Omega)$ (Received August 02, 2006)