Francois A van Heerden* (hfvan@math.utah.edu), Department of Mathematics, University of Utah, 155 South 1400 East, Room 233, Salt Lake City, UT 84112-0090, and Z.-Q. Wang. On a class of anisotropic nonlinear elliptic equations.

We establish some imbedding results of weighted Sobolev spaces. The results are then used to obtain ground state solutions of nonlinear elliptic equations with anisotropic coefficients. (Received August 07, 2006)