1086-35-2419 **Maya Chhetri*** (maya@uncg.edu), **Pavel Drabek** (pdrabek@kma.zcu.cz) and **R. Shivaji** (shivaji@uncg.edu). *Positive solutions for a class of p-Laplacian superlinear semipositone problems.*

We consider an elliptic problem of the form

$$\left.\begin{aligned} -\Delta_p u = \lambda\, f(u) \quad \text{in} \quad \Omega \\ u > 0 \quad \text{in} \quad \Omega \\ u = 0 \quad \text{on} \quad \partial\Omega\,, \end{aligned}\right\}$$

where $\lambda > 0$ is a parameter, Ω is a strictly convex bounded domain in $R^N; N \geq 2$ with C^2 boundary $\partial\Omega$ and $1 < p \leq 2$. The nonlinearity $f\ : [0,\infty) \to R$ is a continuous function that is semipositone ($f(0) < 0$) and p-superlinear at infinity. We use degree theory combined with re-scaling argument and uniform L^∞ apriori estimate to prove that the problem has a positive solution for λ small. We extend this result to systems case as well. (Received September 25, 2012)