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**K.D. Chu, D.D. Hai and R Shivaji\***, Department of Mathematics and Statistics, University of North Carolina at Greensboro, Greensboro, NC 27455. *Uniqueness of positive radial solutions for a class of infinite semipositone  $p$ -Laplacian problems in a ball.*

We prove uniqueness of positive radial solutions to the  $p$ -Laplacian problem

$$\begin{cases} -\Delta_p u = \lambda f(u) \text{ in } \Omega, \\ u = 0 \text{ on } \partial\Omega, \end{cases}$$

where  $\Delta_p u = \operatorname{div}(|\nabla u|^{p-2} \nabla u)$ ,  $p \geq 2$ ,  $\Omega$  is the open unit ball in  $R^N$ ,  $N > 1$ ,  $f : (0, \infty) \rightarrow \mathbb{R}$  is concave,  $p$  – sublinear at  $\infty$  with infinite semipositone structure at 0, and  $\lambda$  is a large parameter. (Received January 12, 2020)