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

$$\begin{cases} -\Delta_p u = \lambda K(|x|)f(u) \text{ in } |x| > r_0, \\ u = 0 \text{ on } |x| = r_0, \quad u(x) \rightarrow 0 \text{ as } |x| \rightarrow \infty. \end{cases}$$

where  $\Omega = \{x \in \mathbb{R}^n : |x| > r_0 > 0\}$ ,  $n > p$ ,  $f : (0, \infty) \rightarrow \mathbb{R}$  is continuous,  $f(u) \sim u^q$  at  $\infty$  for some  $q \in [0, p - 1)$  with possible infinite semipositone structure at 0, and  $\lambda$  is a large parameter. (Received January 28, 2019)