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R. Shivaji* (r_shivaj@uncg.edu), **D. D. Hai** and **Lakshmi Sankar**. *An existence result for an infinite semipositone problem with asymptotically linear growth at ∞ .*

We study the existence of positive solutions to the singular problem

$$\begin{cases} -\Delta u = \lambda f(u) - \frac{1}{u^\alpha} & \text{in } \Omega, \\ u = 0 & \text{on } \partial\Omega, \end{cases}$$

where λ is a positive parameter, Ω is a bounded domain in $\mathbb{R}^n, n \geq 1$ with smooth boundary $\partial\Omega$, $0 < \alpha < 1$ and $f : [0, \infty) \rightarrow \mathbb{R}$ is a continuous function which is asymptotically linear at ∞ . We discuss the existence of positive solutions for a certain range of λ . We also discuss extensions to the case of p -Laplacian operators and systems. (Received July 21, 2011)