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Janak R Joshi<sup>\*</sup> (janakrajjoshi@my.unt.edu), 2413 West Prairie street apt#19, Denton, TX 76201, and Joseph Iaia. Existence of Solutions for semilinear problems with prescribed number of zeros on exterior domains.

In this paper we prove the existence of an infinite number of radial solutions of  $\Delta(u) + f(u) = 0$  with prescribed number of zeros on the exterior of the ball of radius R > 0 centered at the origin in  $\mathbb{R}^N$  where f is odd with f < 0 on  $(0, \beta)$ , f > 0 on  $(\beta, \infty)$ .

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