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**Hossein T. Tehrani\*** (tehranih@unlv.nevada.edu). *Perturbation from symmetry for indefinite semilinear elliptic equations.*

We prove the existence of an unbounded sequence of solutions for an elliptic equation of the form  $-\Delta u = \lambda u + a(x)g(u) + f(x)$ ,  $u \in H_0^1(\Omega)$ , where  $\lambda \in \mathbb{R}$ ,  $g(\cdot)$  is subcritical and superlinear at infinity, and  $a(x)$  changes sign in  $\Omega$ ; moreover,  $g(-s) = -g(s) \forall s$ . We use Rabinowitz's perturbation method applied to a suitably truncated problem; subsequent energy and Morse index estimates allow us to recover the original problem. We consider the case of  $\Omega \subset \mathbb{R}^N$  bounded as well as  $\Omega = \mathbb{R}^N$ ,  $N \geq 3$ . (Received March 07, 2008)