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**Stephen B Robinson\*** (sbr@wfu.edu) and **Klaus Schmitt**. *Discrete Resonance Problems Subject to Periodic Forcing*.

We consider the following discrete nonlinear problem which is subject to a periodic nonlinear forcing term:

$$Au = \lambda u + p(u) + h$$

where  $A$  is an  $n \times n$  matrix with real components,  $p : \mathbb{R}^n \rightarrow \mathbb{R}^n$  is a periodic forcing term, and  $\langle h, \bar{\phi} \rangle = 0$ , where  $\bar{\phi}$  is an eigenvector of  $A^T$ , the transpose of  $A$ , corresponding to a simple real eigenvalue  $\lambda$ . Conditions on these terms will be provided such that this problem will have infinitely many distinct solutions. The results here are motivated by some recent results for discrete systems and by results obtained for analogous boundary value problems for semilinear elliptic problems at resonance. (Received September 04, 2019)