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**Positive solutions for second-order nonlinear discrete periodic boundary value problems.**

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Summary: A kind of discrete periodic boundary value problems with parameter  $\lambda$  is studied. Under different combinations of sublinearity and superlinearity of nonlinear term  $f$ , this paper discusses how the number of positive solutions varies while  $\lambda$  varies, as well as the uniqueness of solutions and the dependence of solutions on the parameter  $\lambda$ .

**MSC:**

[39A12](#) Discrete version of topics in analysis

[34B18](#) Positive solutions to nonlinear boundary value problems for ordinary differential equations

[39A22](#) Growth, boundedness, comparison of solutions to difference equations

[39A10](#) Additive difference equations

**Keywords:**

periodic boundary value problem; positive solution; fixed point; Green's function; positive solutions