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**Bifurcation from interval and positive solutions for second order periodic boundary value problems.** (English) [Zbl 1218.34026](#)

*Dyn. Syst. Appl.* 19, No. 2, 211-224 (2010).

The authors give a detailed description of the branches of positive solutions  $(u, \lambda)$  of the periodic boundary value problem

$$u'' - q(t)u + \lambda a(t)f(u) = 0, \quad 0 < t < 2\pi, \quad u(0) = u(2\pi), \quad u'(0) = u'(2\pi).$$

To obtain their results, they use topological degree theory and global bifurcation techniques.

Reviewer: [George Karakostas \(Ioannina\)](#)

**MSC:**

- [34B18](#) Positive solutions to nonlinear boundary value problems for ordinary differential equations
- [34C23](#) Bifurcation theory for ordinary differential equations
- [47N20](#) Applications of operator theory to differential and integral equations
- [34B09](#) Boundary eigenvalue problems for ordinary differential equations

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**Keywords:**

periodic boundary value problems; bifurcation; periodic solutions; topological degree theory