

O'Regan, Donal**Solvability of some two-point boundary value problems of Dirichlet, Neumann or periodic type.** (English) [Zbl 0785.34025](#)

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The paper deals with the existence of solutions for two point boundary value problems $\frac{1}{p}(py')' = qf(t, y, py')$, $0 < t < 1$, of Dirichlet, Neumann or periodic type. The tools are the nonlinear alternative of Leray-Schauder and the "a priori bounds" technique. The novelty is that the conditions ensuring the a priori boundedness of the solutions are expressed with the aid of a number c located between two consecutive eigenvalues of the problem: $\frac{1}{p}(py')' + \lambda y = 0$, y satisfies the corresponding Dirichlet, Neumann or periodic boundary condition.

Reviewer: [R.Precup \(Cluj-Napoca\)](#)**MSC:**[34B15](#) Nonlinear boundary value problems for ordinary differential equationsCited in **3** Documents**Keywords:**[a priori bounds](#); [two point boundary value problems](#); [Dirichlet, Neumann or periodic type](#); [nonlinear alternative of Leray-Schauder](#)