EXISTENCE AND NONEXISTENCE RESULTS FOR SECOND-ORDER NEUMANN BOUNDARY VALUE PROBLEM

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Abstract. In this paper some existence and nonexistence results for positive solutions are obtained for second-order boundary value problem

\[-u'' + Mu = f(t, u), \quad t \in (0, 1)\]

with Neumann boundary conditions

\[u'(0) = u'(1) = 0,\]

where \(M > 0, f \in C([0, 1] \times \mathbb{R}^+; \mathbb{R}^+).\) By making use of fixed point index theory in cones, some new results are obtained.

Full text

References


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