

THREE POSITIVE SOLUTIONS FOR A CLASS OF FOURTH-ORDER BOUNDARY VALUE PROBLEMS

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We study multiplicity of positive solutions for a class of fourth-order boundary value problems with non-homogeneous boundary conditions. For this, we use a fixed point theorem of cone expansion/compression type and we establish a general theorem for a type of systems of second-order ordinary differential equations involving parameters. In addition, we apply our result to the study of existence of solutions for semilinear elliptic systems in bounded annular domains.

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