SYMmetric Positive Solutions For Second–Order
Singular Differential Systems With Multi–Point
Coupled Integral Boundary Conditions

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Abstract. In this paper, we study the existence and multiplicity of symmetric positive solutions for a class of second-order singular nonlinear differential systems with multi-point coupled integral boundary conditions. By constructing a special cone and applying the fixed point theorem of cone expansion and compression of norm type, the existence results of single and multiple symmetric positive solutions are established. As applications, two examples are given to demonstrate the applicability of our results.


Keywords and phrases: coupled singular differential systems, multi-point coupled integral boundary conditions, symmetric positive solutions, fixed point theorem in cones.

REFERENCES


