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CONTINUOUS DEPENDENCE OF SOLUTIONS OF A CERTAIN CLASS OF SINGULAR BVPS ON FUNCTIONAL PARAMETERS

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Abstract

We consider a certain class of singular systems of BVPs and discuss their continuous dependence of solutions on functional parameters. The approach based on the Fenchel transform allows us to avoid the assumption of uniqueness of solution for the system. We apply these results to a certain optimal control problem governed by this system.

Keywords: continuous dependence of solutions, cost functional, system of singular boundary value problems, positive solutions.

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