THE METHOD OF UPPER AND LOWER SOLUTIONS FOR PERTURBED n\textsuperscript{th} ORDER DIFFERENTIAL INCLUSIONS

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Abstract

In this paper, an existence theorem for n\textsuperscript{th} order perturbed differential inclusion is proved under the mixed Lipschitz and Carathéodory conditions. The existence of extremal solutions is also obtained under certain monotonicity conditions on the multi-functions involved in the inclusion. Our results extend the existence results of Dhage et al. [7, 8] and Agarwal et al. [1].

Keywords: differential inclusion, method of upper and lower solutions, existence theorem.

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References


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