EXISTENCE OF SOLUTIONS FOR VOLTERRA INTEGRO-DIFFERENTIAL EQUATIONS IN UNBOUNDED DOMAINS

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Abstract

In this paper, we study the existence of continuous solutions of an integro-differential equation on unbounded intervals. The theory of integral equations has many useful applications in mathematical physics, economics, biology, as well as in describing real world problems. The main tool used in our investigations is a fixed point theorem for upper semicontinuous mappings with acyclic values in a Fréchet space.