

ON A NONLINEAR VOLTERRA INTEGRODIFFERENTIAL EQUATION IN BANACH SPACES

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Abstract. The objective of the present paper is to study the local existence, global existence, uniqueness, continuous dependence, asymptotic stability and other properties of solutions of a nonlinear Volterra integrodifferential equation in Banach spaces of more general type. The technique employed in our analysis is based on treating the equation in the domain of the infinitesimal generator of semigroups of linear operators in a Banach space with graph norm and using results from linear semigroup theory.

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