

SOME GENERALIZATIONS OF RETARDED NONLINEAR INTEGRAL INEQUALITIES AND ITS APPLICATIONS

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Abstract. In this article, we state and prove several new retarded nonlinear integral inequalities for Gronwall-Bellman-Pachpatte type and these inequalities will be used as applications to study the boundedness, global existence, qualitative and quantitative behavior for the solutions of initial value problems of retarded nonlinear integro-differential equations. These inequalities extend some present inequalities to the current literature. An application is also presented to demonstrate the strength of our results.

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