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A STUDY OF A NONLINEAR INTEGRAL EQUATION VIA WEAKLY PICARD OPERATORS

ION MARIAN OLARU

Department of Mathematics
Faculty of Sciences
University "Lucian-Blaga" of Sibiu,
Dr. Ion Ratiu 5-7, Sibiu, 550012, Romania E-mail: marian.olaru@ulbsibiu.ro

Abstract. The purpose of this paper is to study on gauge spaces the following nonlinear integral equation:

$$x(t) = g(t, x(t)) + h(t, x(t)) \cdot \int_0^t K(t, s, x(s))ds, \ t \geq 0.$$

Our results are connected with some results by K. Balachandran and M. Diana Julie (*Asymptotic stability of solutions of nonlinear integral equations*, Nonlinear Functional Analysis and Applications, Vol.13, No.2(2008), pp 311-322). Also, we given an example which show us that the results from the above paper can not be applied, but our results are fulfilled.
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