# Qualitative Properties of Nonlinear Volterra Integral Equations

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**Abstract**

The contraction mapping principle and Liapunov's method are used to study qualitative properties of nonlinear Volterra equations of the form

$$x(t) = a(t) - \int_0^t C(t,s)g(s,x(s))\,ds, t \geq 0.$$

In particular, the existence of bounded solutions and solutions with various $L^p$ properties are studied under suitable conditions on the functions involved with this equation.