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Nonlinear Volterra Difference Equations in l_p -Spaces.

The implicit and explicit Volterra difference equations have motivated an essential interest in investigating the asymptotic properties of its solutions and in developing appropriate methods for the analysis. We present estimates for the l_∞ -norms and l_p -norms of solutions of discrete Volterra equations in Banach spaces. The main tool is an estimate for the inverse infinite quasi-nilpotent matrix. To obtain these bounds we will interpret Volterra equations as operator equations in appropriate spaces. (Received August 28, 2015)