

Abstract

We give a theorem on an error estimate of approximate solutions for functional difference equations of the Volterra type with unknown function of several variables. We apply this general result in the investigations of the stability of quasilinear implicit difference schemes generated by first order partial differential functional equations and by parabolic problems. A comparison technique is used with nonlinear estimates of the Perron type for given functions with respect to the functional variable. Equations with deviated variables and differential integral equations can be derived from a general model by specializing given operators.