

Difference Equations and Stability of ω -Limit Sets

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The dynamical system theory has a relatively short history, but it has benefited from a variety branches of sciences. Also the very fast growing developments of dynamical system theory made this field as an important and attractive to mathematicians. Among the others the behavior of iterations of a map from the unit interval into itself has been considered by many authors. In this paper we will shortly introduce the concepts of difference equations, Λ -stability and Ω -stability. Next we will present a straightforward and self-contained proof to show that the equicontinuity of a sequence $\{f^n\}_{n=1}^\infty$, where f is a function from the unit interval into itself, is equivalent to the continuity of ω_f . Finally the stability of the family of the so called logistic function with one parameter has been classified.
