

On applications of Ulam-Hyers stability in biology and economics

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We argue that Ulam-Hyers stability concept is quite significant in realistic problems in numerical analysis, biology and economics. A generalization to nonlinear systems is proposed and applied to the logistic equation (both differential and difference), SIS epidemic model, Cournot model in economics and a reaction diffusion equation. To the best of our knowledge this is the first time Ulam-Hyers stability is considered from the applications point of view.

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