

On the stability roughness of discrete dynamical systems in infinite-dimensional spaces

B. SASU

ABSTRACT.

The aim of this paper is to provide new methods concerning the study of stability radius of discrete dynamical systems in infinite-dimensional spaces. We study the stability roughness of a discrete dynamical system subjected to general structured perturbations. We determine a lower bound for the stability radius in terms of the norm of the input-output operators acting between two Banach sequence spaces which are invariant under translations.

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WEST UNIVERSITY OF TIMIȘOARA
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE
DEPARTMENT OF MATHEMATICS
PÂRVAN 4, 300223 TIMIȘOARA, ROMANIA
E-mail address: bsasu@math.uvt.ro, lbsasu@yahoo.com

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