

ON ULAM STABILITY

VIGNATI ALESSANDRO

ABSTRACT. We give some stability results for C^* -algebras. After an introduction we prove that whenever A is a finite-dimensional C^* -algebra, B is a C^* -algebra and $\phi: A \rightarrow B$ is approximately a $*$ -homomorphism then there is an actual $*$ -homomorphism close to ϕ by a factor depending only on how far is ϕ from being a $*$ -homomorphism and not on A , B or ϕ . Proceeding further we extend our results to other classes of C^* -algebras, hinting some applications on automorphisms of corona algebras under forcing axioms. This is joint work with Paul McKenney.

PH.D. STUDENT, YORK UNIVERSITY, TORONTO, ONTARIO, CANADA

E-mail address: ale.vignati@gmail.com