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The N-Isometric Isomorphisms in Linear N-normed C^*-Algebras

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摘要

关键词   Hyers--Ulam stability   Trif's mapping   linear N-normed Banach module over C^*-algebra N-isometric isomorphism

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Abstract We prove the Hyers--Ulam stability of linear N-isometries in linear N-normed Banach modules over a unital C^*-algebra. The main purpose of this paper is to investigate N-isometric C^*-algebra isomorphisms between linear N-normed C^*-algebras, N-isometric Poisson C^*-algebra isomorphisms between linear N-normed Poisson C^*-algebras, N-isometric Lie C^*-algebra isomorphisms between linear N-normed Lie C^*-algebras, N-isometric Poisson JC^*-algebra isomorphisms between linear N-normed Poisson JC^*-algebras, and N-isometric Lie JC^*-algebra isomorphisms between linear N-normed Lie JC^*-algebras. Moreover, we prove the Hyers--Ulam stability of their N-isometric homomorphisms.

Key words   Hyers--Ulam stability   Trif's mapping   linear N-normed Banach module over C^*-algebra N-isometric isomorphism

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