Approximate Equivalence of Representations of AF Algebras into Semifinite Von Neumann Algebras

Junsheng Fang, Rui Shi and Shilin Wen

Abstract. In this paper, we extend the “compact operator” part of Voiculescu’s theorem on approximate equivalence of unital $*$-homomorphisms of an AF algebra when the range is in a countably decomposable, semifinite, properly infinite von Neumann factor. We also extend a result of Hadwin for approximate summands of representations into a finite von Neumann factor.


Keywords and phrases: Weyl-von Neumann theorem, Voiculescu’s theorem, AF algebras, countably decomposable semifinite von Neumann algebras.

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