

Choi, Yemon

Singly generated operator algebras satisfying weakened versions of amenability. (English)

[Zbl 1329.46045](#)

Todorov, Ivan G. (ed.) et al., Algebraic methods in functional analysis. The Victor Shulman anniversary volume. Basel: Birkhäuser (ISBN 978-3-0348-0501-8/hbk; 978-3-0348-0502-5/ebook). Operator Theory: Advances and Applications 233, 33-44 (2014).

This paper is a continuation of the author's previous work [[J. Reine Angew. Math.](#) 678, 201–222 (2013; [Zbl 1282.46054](#))] and is motivated by the still open problem of characterizing operator algebras which are amenable as Banach algebras. The first example constructed by the author is a singly generated subalgebra of the set of all compact operators on Hilbert space which is non-amenable, yet is boundedly approximately contractible. It is also remarked that there are singly generated, biflat subalgebras of finite type I von Neumann algebras which are not amenable.

For the entire collection see [[Zbl 1276.47002](#)].

Reviewer: [Cătălin Badea \(Villeneuve d'Ascq\)](#)

MSC:

- [46H25](#) Normed modules and Banach modules, topological modules (if not placed in 13-XX or 16-XX)
- [46L10](#) General theory of von Neumann algebras
- [47L75](#) Other nonselfadjoint operator algebras
- [47L45](#) Dual algebras; weakly closed singly generated operator algebras

Keywords:

approximate amenability; biflatness; compact operators; finite von Neumann algebra; monogenic Banach algebra; type I von Neumann algebra

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