

*Volker Runde*

# Amenable Banach Algebras

A Panorama

January 4, 2022

Springer

## Updates

1. Reference [328] has appeared in *Bull. Sci. Math.* **158** (2020), 102823.
2. pages 55 and 361: In [230], V. Losert proved that, if the multiplier norm and the given norm on the Fourier algebra of a locally compact group are equivalent, then the group has to be amenable. It was claimed for many years—and widely believed even though no published proof existed—that this remains true with the cb-multiplier norm *en lieu* of the multiplier norm, i.e., if the cb-multiplier norm and the given norm are equivalent on the Fourier algebra, then the group is amenable. There is now a proof available on the arXiv, given in

H. H. LEE and X. XIONG, Twisted Fourier(–Stieltjes) spaces and amenability.  
 arXiv:1910.05888.

This paper also addresses an issue arising with the proof given in [230]: see Remark 6.15.

3. In

Y. CHOI, An explicit minorant for the amenability constant of the Fourier algebra. arXiv:1910.05888,

Y. Choi shows that that estimate—established for finite groups by B. E. Johnson—for finite groups in [193] holds for all non-abelian locally compact group  $G$ :  $\text{AM}(A(G)) \geq \frac{3}{2}$ .

## Errata

1. page 244, line 2: “Then  $(\mathfrak{A}^\#, \mathfrak{A} \oplus_\infty \mathbb{C}) \dots$ ” is to be replaced by “Then  $(\mathfrak{A}^\#, \mathfrak{A}_* \oplus_\infty \mathbb{C}) \dots$ ”