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A note on the almost left and almost right joint spectra of R. Harte. (English) Zbl 0704.46028
Commentat. Math. Univ. Carol. 30, No. 2, 317-320 (1989).

It is shown here that a complex unital normed algebra A has a nonzero continuous multiplicative linear functional if and only if for each finite subset $\{a_1, \dots, a_n\}$ of A the almost left (or right) joint spectrum $\tilde{\sigma}_\ell(a_1, \dots, a_n)$ (or $\tilde{\sigma}_r(a_1, \dots, a_n)$) is nonempty, in which $\tilde{\sigma}_\ell(a_1, \dots, a_n) = \{(\lambda_1, \dots, \lambda_n) \in \mathbb{C}^n : 1 \notin [\sum_{i=1}^n A(a_i - \lambda_i)]^-\}$.

Reviewer: [T.Husain](#)

MSC:

[46H05](#) General theory of topological algebras
[47A10](#) Spectrum, resolvent

Keywords:

complex unital normed algebra; nonzero continuous multiplicative linear functional; almost left (or right) joint spectrum

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