

### Corrigendum

Haag, R., Kadison, R. V., Kastler, D.: Asymptotic Orbits in a Free Fermi Gas.  
Commun. math. Phys. **33**, 1—22 (1973)

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In a recent paper entitled “A characterization of clustering states” (Commun. math. Phys. **41**, 79 (1975)) D. W. Robinson points out that the proof of Proposition 4.5 in our paper is incomplete and notes that  $\mathfrak{A}(M_{a_0})^-$  and  $\mathfrak{A}(M_a)' \wedge \mathfrak{A}^-$  do not generate  $\mathfrak{A}_a^-$  as is claimed in the proof given.

The incorrect claim alluded to is made on page 15, lines  $-3$  and  $-2$ , and refers to the “only if” portion of the statement, i.e. that if the “clustering property” holds  $\rho$  is primary. The two paragraphs preceding Lemma 4.4 and Proposition 4.5 establish that the center  $\mathcal{C}$  of  $\mathfrak{A}^-$  is at most 2-dimensional (“primary” is, of course 1-dimensional). As in the first of these paragraphs, if  $C$  is a central element in each of  $\mathfrak{A}(\mathcal{H} \ominus M_a)^-$  then  $C$  is a scalar (from clustering and the fact that  $x$  is separating for the center  $\mathcal{C}$ ). As in the paragraph preceding Proposition 4.5, each even central  $C$  is in each  $\mathfrak{A}(\mathcal{H} \ominus M_a)^-$ . Since the square of an odd element is even and each element of  $\mathcal{C}$  is the sum of an even and an odd element,  $\mathcal{C}$  has dimension at most 2. (Represent  $\mathcal{C}$  as the algebra of all continuous functions on a compact Hausdorff space for that.)

The incorrect claim is not alluded to nor used at any other point in our paper.