REMARK TO MY PAPER: INTRODUCTION TO VON NEUMANN ALGEBRAS AND CONTINUOUS GEOMETRY

by Israel Halperin

Let $\mathcal{R}$ be a factor, let $\mathcal{L}$ be its projection geometry, let x be a non-zero vector and let M be the least element in $\mathcal{L}$ which contains x.

Then, as Kaplansky observed ten years ago in [2, page 471], M cannot contain non-countable orthogonal non-zero elements of $\mathcal{L}$ (this countability property of M was also pointed out to me by Dr. Donald Bures).

It follows that every type III factor is of type $\mathrm{III}_{(\aleph_0, b)}$ for some $b \geq \aleph_0$.

Thus, in [1], the footnote 12 and the third paragraph on page 278 should be now deleted.

REFERENCES

1. Israel Halperin, Introduction to von Neumann algebras and continuous geometry, Canadian Mathematical Bulletin, vol. 3 (1960), 273-288.

2. Irving Kaplansky, Algebras of type I, Annals of Mathematics, Vol. 56 (1952), pp. 460-472.

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