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REPRESENTATIONS OF UNIFORMLY HYPERFINITE ALGEBRAS AND THEIR ASSOCIATED VON NEUMANN RINGS

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Introduction. In this note we summarize the main results of a paper, *Representations of uniformly hyperfinite algebras and their associated von Neumann rings*, which will be published elsewhere.

A uniformly hyperfinite (UHF) algebra of class $\{n_i\}$ is a C^* -algebra, \mathfrak{A} , which contains an increasing sequence of factors, $M_1 \subset M_2 \subset \cdots \subset \mathfrak{A}$, of types, $(I_{n_1}), (I_{n_2}), \dots$, such that \mathfrak{A} is the norm closure of $\bigcup_{i=1}^{\infty} M_i$. It is always assumed that the integers, $n_i \rightarrow \infty$ as $i \rightarrow \infty$. UHF algebras have been defined and studied by Glimm [2].

If Π is a $*$ -representation of a UHF algebra, \mathfrak{A} , on a Hilbert space, then the von Neumann ring, $R = \{\Pi(\mathfrak{A})\}''$, generated by the representation algebra, $\Pi(\mathfrak{A})$, has the property that R is the strong closure of an increasing sequence of type (I_n) factors. Von Neumann rings with this property will be called hyperfinite rings. It is clear that every