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Title: E-0-Semigroups of type $II_0$

Abstract: An E-0-semigroup of $B(H)$ is a strongly continuous one parameter semigroup of $^*$-endomorphisms of $B(H)$ which preserve the identity. An E-0-semigroup is said to be spatial if there is a strongly continuous one parameter semigroup of isometries that intertwine it. Such intertwining semigroups of isometries are called units. An E-0-semigroup is of type I if the units completely determine the semigroup, type II if it is spatial but not completely determined by its units and type III if it has no units. We discuss the problem of classifying all E-0-semigroups of type $II_0$. These are type II E-0-semigroups with only one unit and a trivial gauge group. Though these are the simplest E-0-semigroups outside those of type I the problems of classification seem formidable.