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Title: A dynamical systems approach to the Kadison-Singer problem

Abstract: We develop a link between the Kadison-Singer problem and questions about certain dynamical systems. Our hope is that whether or not a given state has a unique extension can be related to certain dynamical properties of the state. We prove that if any state corresponding to a minimal idempotent point extends uniquely to the von Neumann algebra of the group, then every state extends uniquely to the von Neumann algebra of the group. We prove that if any state arising in the Kadsion-Singer problem has a unique extension, then the injective envelope of a C*-crossed product algebra associated with the state necessarily contains the full von Neumann algebra of the group.