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On the special semigroup "at infinity"

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ABSTRACT.

This paper presents an important new technique for studying a particular compact semigroup, $\mathbb{N}\cup\{\infty\}$, the one-point compactification of positive integers with usual addition, which is an important semigroup. Indeed, the semigroup $\mathbb{N}\cup\{\infty\}$ is constructed as the quotient semigroup of a particular compact right topological semigroup. In the study of such a semigroup, a major role is played by the substructures called standard oids. For instance, some of the already known results on the structure of $\mathbb{N}\cup\{\infty\}$ are obtained as immediate consequences.

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