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Ambitable groups and semigroups

For ambitable topological groups we have a tractable characterization of topological centres in certain convolution algebras [arXiv:0803.3405]. The same holds more generally for ambitable semigroups, defined as a subclass of so-called semiuniform semigroups. Hence the question: Which semiuniform semigroups are ambitable? For groups, the question is close to being completely answered: With a possible exception of certain "singular" groups, a topological group is ambitable if and only if it is not precompact. In particular, every locally $\aleph_n$-bounded group, $n = 1, 2, \ldots$, is either precompact or ambitable. In contrast, little is known about the question for semigroups beyond groups.