# Compactly generated and hemicompact topological group

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## Abstract

The compactly generated and hemicompact spaces are important tools in general topology. Analogous to these two concepts in topological space, we introduce the compactly generated topological group and some of its fundamental.

characteristics. E. Michael (in([19])) introduced the definition of hemicompact space and Graev (in ([11]) discussed such spaces in topological group setting. In this thesis, we will study the hemicompact topological group and discuss its relation with locally compact and $\sigma$-compact topological groups.

**Keywords:** topological group, compactly generated topological group, hemicompact topological group.