

Completely Normal Topological Groups

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Abstract

The concept of a topological group goes back to the second half of the nineteenth century and has its origin in the works on smooth manifolds. Now a days, the concept of topological group had been played important roles in almost all parts of mathematics and in computer science and physics. When defining a topological group, one can need some of these conditions in order to obtain a more restricted concept of topological group. In our thesis, we will study the results that have appeared in recent years about separation axioms in topological groups and the relations between the classical types of separation axioms. Also, we will introduce a separation axiom called the completely normal in the setting of topological groups and prove some theorems of this new property.

Keywords: Completely normal topological group, normal topological group, topological group.