

# Abstract

This master thesis focuses on the existence of  $\sigma$ -discrete refinement of point countable Borel additive systems in complete metric spaces. In the first three chapters we deal with the lower Borel classes, namely  $G_\delta$ -additive,  $F_\sigma$ -additive and  $F_{\sigma\delta}$ -additive systems. In all cases we show the existence of  $\sigma$ -discrete refinement of the systems and even for  $G_\delta$ -additive systems we don't need point countability. In the fourth chapter we deal with general Borel additive systems, but we place a limiting condition on the weight of space. In the fifth chapter we present an overview of the results that can be obtained by assuming certain additional axioms.