

# Abstract

This bachelor thesis deals with concepts of porous and  $\sigma$ -porous sets, where we prove some basic properties. First, we define terms on the real axis, in other chapters we generalize them into metric spaces. At the end of the thesis there are several interesting examples. In the first chapter we focus on demonstration that  $\sigma$ -porous sets are sets of the first category. The main result of the chapter is that the Lebesgue measure of the  $\sigma$ -porous sets in the space  $\mathbb{R}^n$  is 0. In the following chapter we deal with the construction of certain sets in the space of continuous functions, in the second case in the space of the nonempty compact sets in  $\mathbb{R}^n$ . In both cases we show that given sets are  $\sigma$ -porous.