

The simplest and most common way to generate samples from a given distribution is the inverse transform sampling method. Since this method uses the inverse function of the distribution's cumulative distribution function, it cannot be used in cases where it is impossible to obtain this inverse function. In such cases, we can use the rejection sampling method. This thesis focuses on generating samples from complex distributions using the rejection sampling method. The goal is to introduce this method and describe how it works. In the practical part, we will apply this method to obtain samples from the distribution with the density defined by the shape of Říp Mountain. Using normality tests, we will attempt to demonstrate through that Říp does not have normal distribution.