

## **Abstract**

This bachelor thesis studies properties of Cohen Forcing and its relation to the unprovability of Continuum Hypothesis and Generalised Continuum Hypothesis. The thesis is divided into four parts. In the first part the technique of forcing based on partial orders is introduced. The second part introduces a notion of Cohen forcing, shows properties of cardinal arithmetic sufficient to preservation of cardinals by Cohen forcing and focuses mainly on generic sets added by concrete variations of Cohen Forcing. Finally some of the properties of Cohen reals are shown in this part. The third part reconstruct a proof of unprovability of Continuum Hypothesis and shows a use of Cohen Forcing in relation to the statements about the Generalised Continuum Hypothesis. The last part discusses briefly a non-minimality of generic filters on Cohen forcing and introduce a notion of Sacks forcing in order to show an existence of forcing notion whose generic filters are minimal.

## **Keywords**

Cohen forcing, CH, GCH, Cohen reals.