

## Abstract

This thesis examines the method of forcing in set theory and focuses on aspects that are set aside in the usual presentations or applications of forcing. It is shown that forcing can be formalized in Peano arithmetic (PA) and that consistency results obtained by forcing are provable in PA. Two ways are presented of overcoming the assumption of the existence of a countable transitive model. The thesis also studies forcing as a method giving rise to interpretations between theories. A notion of bi-interpretability is defined and a method of forcing over a non-standard model of ZFC is developed in order to argue that ZFC and ZF are not bi-interpretable.