

1086-VR-1440 **Cynthia Northrup*** (shepherd@uci.edu). *The Consistency Strength of $\text{Refl}(\omega_3, \omega, \omega_1)$* .

First introduced by Paul Cohen to prove the independence of the Continuum Hypothesis and the Axiom of Choice, forcing is a technique used to extend a transitive model M by adjoining a new set G in order to obtain a larger transitive model $M[G]$ called a generic extension. Our choice of partial order determines what is true in the generic extension. Using Prikry forcing, we collapse the cofinality of a measurable cardinal κ to \aleph_0 while preserving all cardinals. With Raden forcing we will collapse the cofinality of κ to an uncountable value. Our goal is to use these strategies to obtain a model M for which $M \models \text{Refl}(\omega_3, \omega, \omega_1)$ using an optimal large cardinal hypothesis. (Received September 22, 2012)