

► BOKAI YAO, *Forcing with urelements*.

Department of Philosophy, University of Notre Dame, 100 Malloy Hall, Notre Dame, IN 46556 USA.

E-mail: byao1@nd.edu.

ZFCU_R is ZFC (with the Replacement Scheme) modified to allow a class of urelements. I first isolate a hierarchy of axioms based on ZFCU_R and then turn to forcing over countable transitive models of ZFCU_R. A new definition of \mathbb{P} -names is given. The resulting forcing relation is full just in case the Collection Principle holds in the ground model. While forcing preserves ZFCU_R and many axioms in the hierarchy, it can also destroy the DC _{ω_1} -scheme and recover the Collection Principle. The ground model definability fails when the ground model contains a proper class of urelements.