

Meeting: 1003, Atlanta, Georgia, SS 6A, AMS-ASL Special Session on Reverse Mathematics, I

1003-03-548 **Douglas Cenzer*** (cenzer@uf1.edu), Department of Mathematics, P.O. Box 118105, University of Florida, Gainesville, FL 32611-8105, and **Jeffrey B Rimmell**. *Proof-Theoretic Strength of the Stable Marriage Theorem.*

We analyze the proof theoretic strength of several infinite extensions of the stable marriage theorem of Gale and Shapley with respect to the standard Reverse Mathematics hierarchy of systems of second order arithmetic. In particular, there is a version which is equivalent to Weak König's Lemma (WKL_0), a second version which is equivalent to Arithmetic Comprehension (ACA_0), and a third version which is equivalent to Arithmetic Transfinite Recursion (ATR_0), all over the base theory of Recursive Comprehension (RCA_0). (Received September 21, 2004)