

Meeting: 1001, Evanston, Illinois, SS 8A, Special Session on Computability Theory and Applications

1001-03-118 **Peter Cholak*** (Peter.Cholak.1@nd.edu), 255 Hurley, Department of Mathematics, Notre Dame, IN 46556-4618, and **Rod Downey** and **Leo Harrington**. *Improving and Proving the Slaman-Woodin Conjecture.*

A number of years ago, Cholak, Downey and Harrington showed that the Slaman-Woodin Conjecture was true. That is they showed the set of the ordered pairs $\langle i, j \rangle$ such that there is an automorphism of the computably enumerable sets Φ with $\Phi(W_i) = W_j$ (in this case we say $W_i \approx W_j$) is Σ_1^1 -complete. Recently, Cholak and Harrington improved this to proof that there is A such that $\{\widehat{A} : A \approx \widehat{A}\}$ is Σ_1^1 -complete. In this talk we will discuss the proof of this result and several of the corollaries which result from the proof. (Received August 18, 2004)