1129-03-102 **David Marker*** (marker@uic.edu), Dept Mathematics (MC 249), University of Illinois at Chicago, 851 S. Morgan St., Chicago, IL 60607. *The Logical Complexity of Schanuel's Conjecture and Exponential Derivations.*

Schanuel's Conjecture is naturally a Π^1_1-statement. We show that it is equivalent to a Π^0_3-statement in arithmetic by showing that if there are counterexamples, then there are computable counterexamples. The main ideas in the proof come from the work of Johnathan Kirby on exponential algebraic closure and exponential derivations. I will survey Kirby's work and explain the application. (Received March 07, 2017)