1046-03-710 **Douglas Cenzer*** (cenzer@ufl.edu), Department of Mathematics, P.O. Box 118105, University of Florida, Gainesville, FL 32611-8105, and **S. Ali Dashti**. *Decidability of countable closed subshifts.* Preliminary report.

A closed subset of 2^N is a *subshift* if it is closed under the shift operator σ, where $\sigma(X(0), X(1), ...) = (X(1), X(2), ...)$. The authors recently showed (Math. Logic Quarterly, 2008) that there exists an effectively closed (Π^0_1) subshift with no computable member. We now investigate countable Π^0_1 subshifts. It is shown, for example, that any Π^0_1 subshift of rank one is decidable, whereas there is an undecidable Π^0_1 subshift of rank two. (Received September 10, 2008)