1135-37-2692 **Caleb J Ziegler*** (`caleb.ziegler@unt.edu`), Department of Mathematics, University of North Texas, 1155 Union Circle #311430, Denton, TX 76203. *On Mixing Properties of Rank One Subshifts.*

Rank one subshifts are dynamical systems generated by a regular combinatorial process based on sequences of positive integers called the cut and spacer parameters. Despite the simple process that generates them, rank one subshifts comprise a generic set and are the source of many counterexamples. As a result, measure theoretic rank one subshifts have been extensively studied and the topological analogue has been the basis of much recent work.

We examine the factor structure for topological rank one subshifts. First, we classify the finite factors of the system based on the spacer parameters. Furthermore, we show that we can determine the maximal equicontinuous factor based on the presence of finite factors. These methods also lead to a classification of the weak mixing and mixing properties as well. (Received September 26, 2017)