962-20-133 Michael L Mihalik* (mihalik@math.vanderbilt.edu), Michael L. Mihalik, Department of Mathematics, Vanderbilt University, Nashville, TN 37240, and Steven T Tschantz (tschantz@math.vanderbilt.edu), Steven Tschantz, Department of Mathematics, Vanderbilt University, Nashville, TN 37240. Visual JSJ Decompositions of Coxeter Groups.

A Coxeter group is a finitely presented group with *Coxeter presentation*

$$\langle s_1, \dots, s_n : s_i^2 = 1 \forall i, (s_i s_j)^{m_{ij}} = 1 \rangle$$

where m_{ij} is an integer ≥ 2 for some set of pairs i < j. The pair (G, S) is a *Coxeter System*. If (G, S) is a Coxeter system and $A \subset S$ then $\langle A \rangle$ is called a *visual* subgroup of (G, S). A *JSJ decomposition* of a group *G* is a graph of groups decomposition of *G* such that each edge group is virtually cyclic and each vertex group is indecomposable in the sense that it does not split along a virtually cyclic group in a way that is compatible with the given decomposition. This talk will center around JSJ decompositions and how visual they must be. **Theorem.** Suppose *G* is a 1-ended

finitely generated Coxeter group having graph of groups decomposition Λ where each edge group is 2-ended. Then G has a visual JSJ decomposition Ψ where each vertex group of Ψ is a subgroup of a conjugate of a vertex group of Λ . In some sense this says that any partial construction of a JSJ decomposition for a Coxeter group is refined by a visual JSJ decomposition. (Received August 08, 2000)