1053-20-84John G Ratcliffe* (j.g.ratcliffe@vanderbilt.edu), Department of Mathematics, 1326Stevenson Center, Vanderbilt University, Nashville, TN 37240, and Steven T Tschantz. JSJ
Decompositions of Coxeter Groups over FA Subgroups.

A group G is said to have property FA if G fixes a point of every tree on which G acts without inversions. A Coxeter group W, with Coxeter generators S, has property FA if and only if the product of any two elements of S has finite order in W. A visual subgroup of a Coxeter system (W, S) is a subgroup of W generated by a subset of S. A graph of groups decomposition of a Coxeter system (W, S) is said to be visual if every vertex and edge group is visual. We prove that every Coxeter system of finite rank has a visual JSJ graph of groups decomposition with edge groups having property FA. As an application, we reduce the twist conjecture to Coxeter systems that are indecomposable with respect to amalgamated products over visual subgroups with property FA. (Received August 18, 2009)