1023-20-1284 Angela Kubena Barnhill* (abarnhill@math.ohio-state.edu), The Ohio State University, 231 West 18th Avenue, Columbus, OH 43210. Nonpositively curved decompositions of Coxeter groups.

Graph of groups decompositions correspond to actions of groups on trees. Similarly, nonpositively curved decompositions of groups are decompositions that arise from actions of groups on nonpositively curved metric spaces. Every infinite Coxeter group decomposes as a nonpositively curved complex of groups in a natural way. We consider the following question: What is the relationship between arbitrary nonpositively curved decompositions of a Coxeter group and 'natural' decompositions? This question was studied in dimension one by M. Mihalik and S. Tschantz. We will focus on the two-dimensional case. (Received September 25, 2006)