

1056-20-1381      **Cody L Patterson\*** (cpatters@math.utexas.edu), 10610 Morado Circle, Apartment 2401,  
Austin, TX 78759. *Some Coxeter groups of CAT(0) dimension three.*

The Coxeter  $FA_n$  conjecture states that a Coxeter group  $W$  acts by isometries on a CAT(0) polyhedral cell complex of dimension  $n$  without global fixed points if and only if  $W$  has an infinite special subgroup of rank  $n + 1$ . This conjecture has been proven for  $n = 1$  by Serre and for  $n = 2$  by A. Barnhill. I will discuss some classes of Coxeter groups with infinite special subgroups of rank 4 that act without global fixed points on CAT(0) cell complexes of dimension 3. (Received September 21, 2009)