James F Davis and Qayum Khan* (qayum.khan@vanderbilt.edu), Department of Mathematics, 1326 Stevenson Center, Vanderbilt University, Nashville, TN 37240, and Andrew Ranicki. Algebraic K-theory over the infinite dihedral group. Preliminary report.

Bass defined an exotic Nil-summand of the algebraic K-theory of a polynomial extension. Later, Waldhausen extended the definition to tensor algebras and defined an exotic Nil-summand of the algebraic K-theory of an injective amalgam of groups. Our Nil-Nil theorem states, under a certain finiteness condition, that there is a natural isomorphism from the amalgam Nil to a tensor Nil. (Received February 11, 2008)