1009-05-206   **Patricia Hersh*** (`phersh@indiana.edu`), Patricia Hersh, Dept. of Math, Indiana University, Rawles Hall, Bloomington, IN 47405. *Weak order on labelled trees and shelling skeleta of Coxeter-like complexes.*

Babson and Reiner introduced Coxeter-like complexes as a generalization of Coxeter complexes in which the simple reflections of a Coxeter group may be replaced by any minimal generating set for any finite group. In type A, the Coxeter-like complexes resulting from minimal generating sets of transpositions are indexed by trees on n vertices by making an edge $e_{i,j}$ for each transposition (i, j) in the generating set. Babson and Reiner conjectured that the type A Coxeter-like complex given by a tree with n nodes and b leaves is at least $(n - b - 1)$-connected. I will discuss how a sufficiently well-behaved notion of weak order on labellings of this tree implies shellability of the $(n - b)$-skeleton, and hence implies their conjecture. (Received August 16, 2005)

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