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Bridget Tenner* (bridget@math.depaul.edu). *A poset, a graph, and some derangements.*

In the Bruhat order of a Coxeter system, the collection of elements with boolean principal order ideals describes a simplicial complex. The homotopy type of this complex is a wedge of spheres, and the number of spheres can be computed recursively, using discrete Morse theory, from the underlying graph of the system. The homology of the complex can be expressed in terms of derangements of the graph's vertices. This is joint work with Ragnarsson. (Received August 13, 2013)