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Shih-Wei Chao, Department of Mathematics, University of North Georgia, Dahlonega, GA 30597, and **Matthew Macauley***, Department of Mathematical Sciences, Clemson University, Clemson, SC 29634. *Toric heaps and cyclic reducibility in Coxeter groups.*

A reduced word in a Coxeter group can be encoded by a labeled poset called a heap. Two words that differ by cyclic shifts are conjugate, and their corresponding heaps differ by a sequence of conversions of minimal into maximal elements. To formalize this, we introduce the notion of a *toric heap*. This is a labeled cyclic analogue of a poset called a *toric poset*, and this latter object arises as a chamber of a toric graphic hyperplane arrangement. Classic concepts and problems on reducibility in Coxeter groups turn into new problems on cyclic reducibility and conjugacy. If time allows, we will also discuss current and recent results on toric posets. (Received August 24, 2015)